# EXHIBIT 52

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 2 of 114

Confidential - Subject to Protective Order

Page 1

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA

IN RE: ROUNDUP

PRODUCTS LIABILITY
) MDL No. 2741

LITIGATION
)

Case No.

THIS DOCUMENT RELATES
) 16-md-02741-VC

TO ALL CASES
)

THURSDAY, SEPTEMBER 21, 2017

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

- - -

VIDEOTAPED DEPOSITION of JENNIFER R.

RIDER, ScD, held at the offices of Cetrulo LLP,

2 Seaport Lane, Boston, Massachusetts,

commencing at 9:01, on the above date, before

Maureen O'Connor Pollard, Registered Merit

Reporter, Realtime Systems Administrator,

Certified Shorthand Reporter.

- - -

GOLKOW LITIGATION SERVICES 877.370.3377 ph | 917.591.5672 fax deps@golkow.com

# Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 3 of 114

# Confidential - Subject to Protective Order

THE MILLER HEM LIC			Page 2	Page 4
THE MILLER FIRM LLC   SP. MICHAEL MILLER FIRM LLC   Sp. MILLER	1	APPEARANCES:		1
No.   No.   Common   Common		mi i Birkimobb.		23-2 Non-Hodgkin Lymphoma and
S. ALICY CHAPTER (ESO)   A		THE MILLER FIRM LLC		
A   JEFFREY TRAVERS, ESQ (VIA PHONE)	3			
	1			
Section	4	, , , ,		
Branch   B	5			Participants 173
Total Comment (Comment (Comm				
Omnge, Virginia 2996   S. A. C.	6	108 Railroad Avenue		
Counsel for Plaintiffs	_			D.Sc, MPH
B	'7			
HOLLINGSWORTH LIP   10   BY: WILLIAM L COPLE II, ESQ.   12   22   23   24   24   25   25   25   25   25   25	Ω	Counsel for Flamums		
1				evaluation of glyphosate between
BY: WILLIAM J. COPILE III, ESQ.   1		HOLLINGSWORTH LLP		
GRANT W. HOLLINGSWORTH, ENC.   12   12   12   12   12   12   12   1	10			
globilingsworth @hollingsworth placem 12	1.1			12 Humans
14	11			
Washington, DC 2005   23   26   26   27   27   28   28   28   28   28   28	12			
13	12			assay for monitoring
Coursel for Defendant Monsanto	13			
15				
18				17 Pesticide Applicators in the
23		ALCO DDECENT		
19		ALSO PRESENT:		
CHRISTOPHER COUGHLIN, Golkow Technologies, Inc.   20		VIDEOGRAPHER:		19 Monographs evaluate DDT, lindane,
Commonweal   Com				and 2,4-D 213
21				
22	20	-		21 Cancer Burden Among Pesticide
23   23-28   Alavanja, et al paper, Non-Hodgkin Lymphoma Raid Insecticide, Fingicide and Furnigant Use in the Agricultural Health Study	0.1			
Page 3  Page 3  Page 5  I INDEX EXAMINATION PAGE 2 JENNIFER R. RIDER, ScD BY MR. MILLER 8 3 BY MR. COPLE 272  EX H IB IT S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Postate Cancer. Mon-Hodgkin Lymphona and Conceptional Exposure to Participants				
Page 3   Page 5				Lymphoma Risk and Insecticide,
Page 3   Page 5				
INDEX				
INDEX	-			
EXAMINATION			Page 3	Page 5
BENNIFER R. RIDER, ScD   BY MR. MILER   8   Study	1			
BY MR. MILLER	1 -			
EXHIBITS   NO.   DESCRIPTION   PAGE   5   NO.   Proquency and Risk of Prostate   Cancer		EXAMINATION PAGE		23-29 Draft Lymphoma risk and pesticide
EXHIBITS   4   meta-analysis	2	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8		23-29 Draft Lymphoma risk and pesticide 2 use in the Agricultural Health Study227
5 NO   DESCRIPTION   PAGE   5   23-30   International Committee of Medical   Journal Editors, Uniform   requirements for manuscripts   submitted to biomedical journals	2	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Signature   Cancer   Cancer	2	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Telepiter   Section   13   Submitted to biomedical journals	2 3 4	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EXHIBITS		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23-10 Schinasi and Leon article,   Non-Hodgkin Lymphoma and   Occupational Exposure to   Agricultural Pesticide Chemical   Groups and Active Ingredients	2 3 4 5	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical 10 Groups and Active Ingredients	2 3 4 5 6	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EXHIBITS NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
9	2 3 4 5 6	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
10   Groups and Active Ingredients	2 3 4 5 6	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
10   Groups and Active Ingredents	2 3 4 5 6 7 8	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
12   23-12   5/24/17 Exponent paper,   Meta-Analysis of Glyphosate Use   and Risk of Non-Hodgkin Lymphoma	2 3 4 5 6 7 8	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma 144   12   23-33   Buckley, et al article, Pesticide   Exposures in Children with   Non-Hodgkin Lymphoma	2 3 4 5 6 7 8 9	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
13	2 3 4 5 6 7 8 9	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Exposures in Children with   Non-Hodgkin Lymphoma	2 3 4 5 6 7 8 9	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Participants	2 3 4 5 6 7 8 9 10 11 12	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23-15   Document from Harvard T.H. Chan   23-15   Document from Harvard T.H. Chan   15   23-35   Wilson, et al study, Vasectomy and Risk of Aggressive Prostate   Cancer: A 24-Year Follow-Up Study 259   17   23-36   Sigurdardottir, et al manuscript, Sleep Disruption Among Older Men   18   and Risk of Prostate Cancer 264   23-17   PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot Camp, 1/4/12	2 3 4 5 6 7 8 9 10 11 12	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23-15   Document from Harvard T.H. Chan   website titled Research Roundup	2 3 4 5 6 7 8 9 10 11 12	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
17	2 3 4 5 6 7 8 9 10 11 12 13 14 15	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29   Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Participants	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
19   23-17   PowerPoint titled Lung Cancer,   18   and Risk of Prostate Cancer	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23-17   PowerPoint titled Lung Cancer,   19   23-37   Exhibit B to expert report,   Materials Considered List	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Camp, 1/4/12	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
21   23-18   Report from School of Public   21   Rider, Sch. 7/31/17	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23-18 Report from School of Public 21 Rider, ScD, 7/31/17	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
22 Health website, Report links welding fumes with risk of cancer 169  23 23-19 Publication titled Global Cervical 24 Cancer: HPV Vaccination and  22 23-39 Supplemental Materials Considered List	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23 23-4 Chang and Delzell article, 23-19 Publication titled Global Cervical 24 Cancer: HPV Vaccination and 25 23-4 Chang and Delzell article, Systematic review and 26 meta-analysis of glyphosate	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  E X H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23-19 Publication titled Global Cervical Systematic review and 24 Cancer: HPV Vaccination and 24 meta-analysis of glyphosate	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
24 Cancer: HPV Vaccination and 24 meta-analysis of glyphosate	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29   Draft Lymphoma risk and pesticide use in the Agricultural Health Study
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29   Draft Lymphoma risk and pesticide use in the Agricultural Health Study
Diagnostics	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study
23 symphonemanopoieuc canceis 49	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	EXAMINATION PAGE JENNIFER R. RIDER, ScD BY MR. MILLER 8 BY MR. COPLE 272  EX H I B I T S NO. DESCRIPTION PAGE 23-1 Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer		23-29 Draft Lymphoma risk and pesticide use in the Agricultural Health Study

2 (Pages 2 to 5)

# Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 4 of 114

	Page 6		Page 8
1		1	MR. COPLE: Anyone else?
2	23-40 Draft, Lymphoma risk and pesticide	2	THE VIDEOGRAPHER: The court reporter
2	use in the Agricultural Health Study, 12/5/16	3	is Maureen O'Connor, and she will now swear in
3	·	4	the witness.
4	23-5 McDuffie, et al article, Non-Hodgkin's Lymphoma and	5	ale waters.
4	Specific Pesticide Exposures in	6	JENNIFER R. RIDER, ScD,
5	Men 64	7	having been first duly identified and sworn, was
6	23-6 Hardell, et al article, Exposure to Pesticides as Risk Factor for	8	examined and testified as follows:
7	Non-Hodgkin's Lymphoma and Hairy		
	Cell Leukemia	9	EXAMINATION
8	23-7 De Roos, et al article,	10	BY MR. MILLER:
9	Integrative assessment of multiple	11	Q. Good morning.
	pesticides as risk factors for	12	A. Good morning.
10 11	non-Hodgkin's lymphoma among men 85 23-8 Eriksson, et al article, Pesticide	13	MR. COPLE: Excuse me for a moment,
	exposure as risk factor for	14	Mike. I just have a brief comment for the
12	non-Hodgkin lymphoma including	15	record.
13	histopathological subgroup analysis	16	On behalf of Monsanto, we are
14	23-9 Cocco, et al article, Lymphoma	17	producing Dr. Rider as a general causation
1-	risk and occupational exposure to	18	expert pursuant to Pretrial Order No. 7 of the
15 16	pesticides 110	19	deposition protocol. Monsanto provisionally
17		20	designates as confidential in its entirety the
18		21	transcript, videography, and exhibits used in
19 20		22	this deposition.
21		23	BY MR. MILLER:
22			
23 24		24	Q. How are you doing today?
25		25	A. Good. Thank you.
	Page 7		Page 9
1	PROCEEDINGS	1	Q. Excellent.
2		2	What's your name?
3	THE VIDEOGRAPHER: We are now on the	3	A. Jennifer Rider.
4	record. My name is Chris Coughlin. I'm a	4	Q. And Dr. Rider would be appropriate?
5	videographer for Golkow Technologies. Today's	5	A. Sure.
6	date is September 21, 2017, and the time is	6	
			Q. Okay. And, Dr. Rider, have you been
7	9:01 a.m.	7	deposed before?
8	This video deposition is being held in	8	A. Never.
9	Boston, Massachusetts, In Re: Roundup Products	9	Q. Okay. I'm going to ask some
10	Liability Litigation, MDL No. 2741, Case Number	10	questions. I'm sure these lawyers have had an
11	16-md-02741-VC, for the United States District	11	opportunity to explain that concept to you.
12	Court, Northern District of California.	12	A. Yes.
13	The deponent is Dr. Jennifer Rider.	13	Q. So if at any time you do not
14	Will counsel please identify	14	understand my questions, will you let me know?
15	yourselves and state whom you represent.	15	A. Absolutely.
16	MR. MILLER: Good morning, this is	16	Q. Okay. So if you answer, I'll assume
17	Michael Miller and Nancy Miller on behalf of	17	you answered truthfully, fully, and as fair as
⊥ /		18	you would in front of a jury. Okay?
	plaintiffs.	1 -0	* * * * *
18	plaintiffs.  MR COPLE: Good morning. This is	1 9	
18 19	MR. COPLE: Good morning. This is	19	A. Okay.
18 19 20	MR. COPLE: Good morning. This is William Cople and Grant Hollingsworth, both of	20	Q. Great.
18 19 20 21	MR. COPLE: Good morning. This is William Cople and Grant Hollingsworth, both of Hollingsworth LLP, for Monsanto.	20 21	Q. Great. I see your CV, and we'll talk about it
18 19 20 21 22	MR. COPLE: Good morning. This is William Cople and Grant Hollingsworth, both of Hollingsworth LLP, for Monsanto. THE VIDEOGRAPHER: The court reporter	20 21 22	Q. Great. I see your CV, and we'll talk about it a little bit, but it kind of speaks for itself.
18 19 20 21 22 23	MR. COPLE: Good morning. This is William Cople and Grant Hollingsworth, both of Hollingsworth LLP, for Monsanto. THE VIDEOGRAPHER: The court reporter is Maureen	20 21 22 23	Q. Great. I see your CV, and we'll talk about it a little bit, but it kind of speaks for itself. I just want you to know up front, no matter what
18 19 20 21 22	MR. COPLE: Good morning. This is William Cople and Grant Hollingsworth, both of Hollingsworth LLP, for Monsanto. THE VIDEOGRAPHER: The court reporter	20 21 22	Q. Great. I see your CV, and we'll talk about it a little bit, but it kind of speaks for itself.

	Page 10		Page 12
1	in my questions, and I know you'll do the same	1	BY MR. MILLER:
2	and try to be intellectually honest in your	2	Q. You can answer.
3	answers, and we'll extend each other that	3	A. Okay. So I believe you're referring
4	courtesy. Okay?	4	to one of my recent publications.
5	A. Sounds good.	5	Q. I am, ma'am.
6	Q. Great.	6	A. "Ejaculation Frequency and Prostate
7	And you have the same sort of knack I	7	Cancer."
8	do, I like to nod at people, but she can't type	8	Q. Yes, ma'am.
9	that down. You have to verbalize an answer.	9	A. And could you just restate the actual
10	A. Okay.	10	question?
11	Q. Okay. Good. All right. As I	11	Q. Sure. I just want to know, it's the
12	understand, and I got your report that was sent	12	same question, that is there a body of evidence
13	on this case, and I assume that you prepared	13	using population-based research and
14	this?	14	epidemiologic methods that demonstrate a
15	A. I did.	15	negative causation between high ejaculators and
16	Q. Okay. And I just want to ask you	16	prostate cancer?
17	I'm not going to go through it page-by-page,	17	A. So that paper reflects one study on
18	line-by-line or anything, but I did want to ask	18	that topic, and, you know, while I think it's a
19	you about this. The scope of the report, and	19	strong study, I would not determine from that
20	I'm going to quote this and see if we can kind	20	single study that ejaculation frequency is a
21	of do this shorthand, but "Hollingsworth LLP"	21	causal factor in prostate cancer.
22	of course, that's the law firm that represents	22	Q. But you would agree from that one
23	Monsanto. You understand that?	23	study you saw strong evidence of a negative
24	A. I do.	24	causation between high ejaculators and prostate
25	Q. Okay.	25	cancer; true?
	Page 11		D 12
	3		Page 13
1	"has requested that I evaluate from	1	MR. COPLE: Objection to form.
1 2	"has requested that I evaluate from my perspective as an expert in the field of	1 2	
	"has requested that I evaluate from		MR. COPLE: Objection to form.
2	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and	2	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.
2	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate	2 3	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:
2 3 4	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the	2 3 4	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong
2 3 4 5	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's	2 3 4 5	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:
2 3 4 5 6	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the	2 3 4 5 6	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're
2 3 4 5 6 7	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.	2 3 4 5 6 7	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as
2 3 4 5 6 7 8	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.	2 3 4 5 6 7 8	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?
2 3 4 5 6 7 8	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail	2 3 4 5 6 7 8	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.
2 3 4 5 6 7 8 9	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions	2 3 4 5 6 7 8 9 10 11	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as
2 3 4 5 6 7 8 9 10	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is	2 3 4 5 6 7 8 9 10	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.
2 3 4 5 6 7 8 9 10 11	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is	2 3 4 5 6 7 8 9 10 11 12 13	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider,
2 3 4 5 6 7 8 9 10 11 12 13	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?	2 3 4 5 6 7 8 9 10 11 12 13 14	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency
2 3 4 5 6 7 8 9 10 11 12 13 14	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated	2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was
2 3 4 5 6 7 8 9 10 11 12 13 14 15	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct. Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient	2 3 4 5 6 7 8 9 10 11 12 13 14	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a	2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.  Q. Yes, ma'am. So let me ask you this.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:  Q. And this is 23-1. And here's a copy
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.  Q. Yes, ma'am. So let me ask you this.  Is there a body of evidence that shows that men who have high ejaculation rates have a	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:  Q. And this is 23-1. And here's a copy (handing).
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.  Q. Yes, ma'am. So let me ask you this.  Is there a body of evidence that shows	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:  Q. And this is 23-1. And here's a copy (handing).  Would you identify what that is,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.  Q. Yes, ma'am. So let me ask you this.  Is there a body of evidence that shows that men who have high ejaculation rates have a	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:  Q. And this is 23-1. And here's a copy (handing).  Would you identify what that is, ma'am?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	"has requested that I evaluate from my perspective as an expert in the field of cancer epidemiology whether there is a body of evidence using population-based research and epidemiologic methods that could demonstrate that glyphosate is a causal factor in the development of non-Hodgkin's lymphoma." That's what they asked you to do?  A. That is correct.  Q. Yes, ma'am.  And we're going to go into more detail over the next seven hours what your opinions are, but generally speaking, your opinion is that there is not such a body of evidence; is that fair?  A. I reached the conclusion, as I stated in my report, that there is not sufficient evidence to determine that glyphosate is a causal factor in any child development.  Q. Yes, ma'am. So let me ask you this.  Is there a body of evidence that shows that men who have high ejaculation rates have a lower risk of prostate cancer?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: Objection to form.  A. We found a strong inverse association between frequency of ejaculation and subsequent development of prostate cancer.  BY MR. MILLER:  Q. And you characterized that as strong evidence in your report?  A. Sir, I don't know what you're referring to. Where do I characterize it as strong?  Q. That's fair. I'll show it to you.  MR. MILLER: Let's mark this as  Exhibit 1.  (Whereupon, Rider Exhibit 23-1, Rider, et al article, Ejaculation Frequency and Risk of Prostate Cancer, was marked for identification.)  BY MR. MILLER:  Q. And this is 23-1. And here's a copy (handing).  Would you identify what that is, ma'am?  A. This is an article for which I was the

	Page 14		Page 16
1	follow-up study cohort.	1	question.
2	Q. Also authored by Lorelei Mucci?	2	BY MR. MILLER:
3	A. That's correct.	3	Q. Well, I think you said that the
4	Q. I didn't mean to interrupt you. I'm	4	Bradford-Hill criteria was not the be-all
5	sorry.	5	end-all of causation, and I guess my question
6	A. Yes. Dr. Mucci was also a co-author.	6	is, what is the be-all end-all I mean, in
7	Correct.	7	science is anything the be-all end-all?
8	Q. I wanted to make sure I was	8	MR. COPLE: Objection. Vague.
9	pronouncing that right.	9	A. So I can speak for epidemiologic
10	Let's go, if we can, to the	10	research, and there, before one would even go
11	Conclusion. And you say in that first sentence	11	down the road of evaluating the Bradford-Hill
12	that the study "provides the strongest evidence	12	criteria, you would first want to be certain
13	to date of a beneficial role of ejaculation in	13	that all of the studies that had been conducted
14	the prevention of PCa." Right?	14	and that you were attempting to synthesize had a
15	A. That is what it says, yes.	15	reasonable degree of internal validity. So in
16	Q. So in so you and I agree that one	16	many cases we wouldn't even get to the point
17	study can provide strong evidence of an	17	where the Bradford-Hill criteria were useful.
18	association between an event and exposure and a	18	BY MR. MILLER:
19	cause; right?	19	Q. And in this case you decided to not
20	MR. COPLE: Objection to form. Vague.	20	implement the Bradford-Hill criteria because you
21	A. It really depends on the quality of	21	felt there were internal problems with these
22	the study.	22	studies; fair?
23	BY MR. MILLER:	23	MR. COPLE: Objection to form.
24	Q. I understand that. But one study, if	24	A. Particularly in the case control
25	it's of good quality, can; right?	25	studies, I thought that the limitations of those
-	Page 15		Page 17
1	A. As I said before, even though I think	1	studies were sufficient enough where, you know,
2	A. As I said before, even though I think that the study we conducted here was a very	2	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill
2	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our	2	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.
2 3 4	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do	2 3 4	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:
2 3 4 5	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the	2 3 4 5	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER: Q. Yes, ma'am.
2 3 4 5 6	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.	2 3 4 5 6	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER: Q. Yes, ma'am. So let's go back to your study of
2 3 4 5 6 7	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for	2 3 4 5 6 7	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong
2 3 4 5 6 7 8	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for	2 3 4 5 6 7 8	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings
2 3 4 5 6 7 8 9	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill	2 3 4 5 6 7 8	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?
2 3 4 5 6 7 8 9	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?	2 3 4 5 6 7 8 9	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER: Q. Yes, ma'am. So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right? A. That's incorrect.
2 3 4 5 6 7 8 9 10	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague.	2 3 4 5 6 7 8 9 10	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the
2 3 4 5 6 7 8 9 10 11	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.	2 3 4 5 6 7 8 9 10 11	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?
2 3 4 5 6 7 8 9 10 11 12 13	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria	2 3 4 5 6 7 8 9 10 11 12	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number
2 3 4 5 6 7 8 9 10 11 12 13 14	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize	2 3 4 5 6 7 8 9 10 11 12 13 14	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this
2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and	2 3 4 5 6 7 8 9 10 11 12 13 14 15	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:  Q. Well, I guess in science is anything	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1. Okay. I'm at Table 2. Yes, ma'am.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no.  BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1. Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I mean, honestly?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1. Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of the results in this table. We can look, say, at
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I mean, honestly?  MR. COPLE: Objection. Argumentative.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1. Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of the results in this table. We can look, say, at the p for trend for men, frequency of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I mean, honestly?  MR. COPLE: Objection. Argumentative. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1. Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of the results in this table. We can look, say, at the p for trend for men, frequency of ejaculation during ages 20 to 29 years or 40 to
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I mean, honestly?  MR. COPLE: Objection. Argumentative. BY MR. MILLER: Q. I'm just asking.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1.  Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of the results in this table. We can look, say, at the p for trend for men, frequency of ejaculation during ages 20 to 29 years or 40 to 49 years or in the year before the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague.  Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no.  BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I mean, honestly?  MR. COPLE: Objection. Argumentative.  BY MR. MILLER:  Q. I'm just asking.  MR. COPLE: Same objection.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1. Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of the results in this table. We can look, say, at the p for trend for men, frequency of ejaculation during ages 20 to 29 years or 40 to 49 years or in the year before the questionnaire, and both the age-adjusted hazard
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. As I said before, even though I think that the study we conducted here was a very strong study, I would not make the leap that our findings are indicative of causation. I do believe it provides strong evidence of the association.  Q. Sure. It would be irresponsible for any epidemiologist to make the leap for causation without using the Bradford-Hill criteria; right?  MR. COPLE: Objection, vague. Objection to form.  A. I think the Bradford-Hill criteria provide one means by which to synthesize evidence, but it certainly isn't the be-all and end-all of determining causation, no. BY MR. MILLER:  Q. Well, I guess in science is anything the be-all and end-all of anything really, I mean, honestly?  MR. COPLE: Objection. Argumentative. BY MR. MILLER: Q. I'm just asking.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	studies were sufficient enough where, you know, trying to synthesize them with the Bradford-Hill criteria was not a useful exercise.  BY MR. MILLER:  Q. Yes, ma'am.  So let's go back to your study of ejaculation frequency that showed strong evidence of association. It your findings did not have statistical significance; right?  A. That's incorrect.  Q. Explain to me, you're the epidemiologist, why is that incorrect?  A. If you look at there are a number of statistically significant results in this paper. Perhaps the main finding we could look at, let's say, in Table 2.  Q. Give me one second. I'm at Figure 1.  Okay. I'm at Table 2. Yes, ma'am.  A. Okay. So we can look really at any of the results in this table. We can look, say, at the p for trend for men, frequency of ejaculation during ages 20 to 29 years or 40 to 49 years or in the year before the

Page 18 Page 20 1 ratios are statistically significant. 1 results, information that isn't necessarily 2 Q. You're one of the few people that 2 captured all the time in the p-value. 3 actually talk faster than me. So you're going 3 Q. Are there other causes for reduced to have to slow down a little bit or she's going 4 4 risk of prostate cancer --5 5 MR. COPLE: Objection. to get exhausted. 6 6 A. Sorry. BY MR. MILLER: 7 Q. So you pointed out, and probably very 7 Q. -- other than high ejaculation? 8 correctly, that in Table 2 there are some 8 MR. COPLE: Objection to form. Vague. 9 statistically significant findings. 9 A. So, I mean, part of the reason why 10 A. That is correct. 10 these results are interesting is we actually 11 11 know very little about risk factors. For Q. Yes, ma'am. 12 And what do we mean by "statistically 12 prostate cancer, I think most experts would 13 significant findings"? How would you explain 13 agree that the established risk factors for 14 14 that to a jury? prostate cancer are race, age, family history, 15 MR. COPLE: Objection. Vague. 15 and there have been a number of genetic 16 A. So I can tell you what we meant by 16 determinants of prostate cancer. But yes, we -it's a disease for which we know relatively 17 them in this particular paper. So let's take 17 18 the example of the multivariate adjusted hazard 18 little about the risk factors. 19 ratio for frequency at ages 40 to 49. Here the 19 BY MR. MILLER: 20 test that we're performing is looking at a trend 20 Q. How would you account for those risk 21 across those categories of ejaculation, and we 21 factors -- how did you account for those risk 22 find that compared to men with a frequency of 4 22 factors when you did your ejaculation frequency 23 23 study? to 7 ejaculations per month, men in the -- as 24 the categories of ejaculation increase, the 24 A. So because this is a very large study, 25 hazard ratio for prostate cancer decreases in a 25 so, you know, close to 32,000 men answered the Page 19 Page 21 1 1 monotonic way, so that we get a p-value of less questions on ejaculation frequency, and we had 2 than .0001, and that is consistent with saying 2 nearly 4,000 prostate cancer cases that were 3 that, you know, the probability of observing 3 included, we were able to control for a number 4 that result under the null hypothesis would 4 of different variables in our multivariable 5 5 be -- that result or a result more extreme would analysis. 6 6 be less than .0001. So you can see in the footnote of 7 7 Q. Which makes it a statistically Table 2 all of the variables that were 8 8 significant finding? controlled for in that analysis. Those were 9 A. That is correct. 9 selected because they have either been 10 Q. Which means it's unlikely to be by 10 associated with prostate cancer in other 11 11 studies, or were specifically associated with chance? 12 A. The purpose of hypothesis testing and 12 prostate cancer in this particular cohort. 13 of estimating p-values is to be able to evaluate 13 Q. And this article that we are 14 the role of chance. 14 discussing, it was published in a peer-reviewed 15 Q. And by having the statistically 15 journal? 16 significant result, we reduce the possibility of 16 A. That is correct, European Urology. 17 chance low enough to where we call it 17 Q. And what do we mean when we say 18 statistically significant? 18 "peer-reviewed journal"? 19 19 A. So, again, you know, I think, as I A. Well, I think what you mean is a said, the p-value is one way in which we 20 20 journal that subscribes to a peer review process 21 21 evaluate the role of chance in our findings. by which the -- a publication that's being -- a manuscript that's being considered for 22 But, you know, I think it's important to point 22 23 out that, you know, the confidence intervals 23 publication would be sent out to one or more 24 here are also giving us really important 24 scientists, peer reviewers, to evaluate that 25 25 information about the precision of those publication so that the journal can decide

	Page 22		Page 24
1	whether to accept, reject, or invite the authors	1	Q. And how many people would review a
2	to respond to comments.	2	typical article before it would be put in the
3	Q. Would it be fair to say that	3	European Association of Urology?
4	scientists look more seriously on peer-reviewed	4	A. In the European Urology journal, it
5	journals than non-peer-reviewed journals?	5	varies. So from my experience in being a peer
6	MR. COPLE: Objection. Vague.	6	reviewer, sometimes I am one of two peer
7	A. I couldn't I couldn't speak for	7	reviewers reviewing an article. Other times I
8	scientists, generally, and certainly not people	8	have had papers that have been reviewed by six
9	outside of my own field.	9	reviewers. It varies from situation to
10	BY MR. MILLER:	10	situation.
11	Q. All right. Well, let's narrow it.	11	Q. Yes, ma'am.
12	Do you, Dr. Rider, do you put more	12	The more important the article,
13	weight or importance in peer-reviewed journals	13	perhaps the more reviewers?
14	over a non-peer-reviewed journal?	14	MR. COPLE: Objection, vague.
15	A. I think, you know, most of my all	15	Objection to form.
16	of my original scientific articles have been	16	A. Yeah, I'm I am unaware that that's
17	published in journals that have some form	17	how it happens. I think it has a lot to do with
18	of peer review. I think those journals are more	18	how many reviewers agree to review the article.
19	commonplace in my field.	19	BY MR. MILLER:
20	Q. Are you a peer reviewer?	20	Q. Fair enough.
21	A. I am.	21	And the reviewers are contacted and
22	Q. And when you peer review, you look at	22	selected by the editors of the article?
23	it and scrutinize it to make sure the article is	23	A. So, again, I can speak to the process
24	worthy of being published; fair?	24	for this particular journal. There is an
25	A. I don't really see that as my role. I	25	associate editor who is assigned an article to
	71. I don't really see that as my role. I		associate editor who is assigned an article to
	Page 23		Page 25
1	Page 23 think that I review the paper to, you know,	1	Page 25 be sent out for peer review. The associate
1 2		1 2	
	think that I review the paper to, you know,		be sent out for peer review. The associate
2	think that I review the paper to, you know, certainly determine whether I agree with the	2	be sent out for peer review. The associate editor would then contact potential peer
2	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most	2	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the
2 3 4	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a	2 3 4	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.
2 3 4 5	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the	2 3 4 5	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly
2 3 4 5 6	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's	2 3 4 5 6	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can
2 3 4 5 6 7	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of	2 3 4 5 6 7	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the
2 3 4 5 6 7 8	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.	2 3 4 5 6 7 8	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.
2 3 4 5 6 7 8	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes	2 3 4 5 6 7 8	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?
2 3 4 5 6 7 8 9	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want	2 3 4 5 6 7 8 9	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.
2 3 4 5 6 7 8 9 10	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know	2 3 4 5 6 7 8 9 10	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular
2 3 4 5 6 7 8 9 10 11	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind	2 3 4 5 6 7 8 9 10 11	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to
2 3 4 5 6 7 8 9 10 11 12	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?	2 3 4 5 6 7 8 9 10 11 12 13	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow
2 3 4 5 6 7 8 9 10 11 12 13 14	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.	2 3 4 5 6 7 8 9 10 11 12 13 14	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether there should be a major revision or a minor
2 3 4 5 6 7 8 9 10 11 12 13 14 15	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to	2 3 4 5 6 7 8 9 10 11 12 13 14 15	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether there should be a major revision or a minor
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer review process where you do	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether there should be a major revision or a minor revision. But it is up to the associate editor
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer reviewer.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be a major revision or a minor revision. But it is up to the associate editor to ultimately make that decision. The AE
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer reviewer. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be a ccepted, rejected, whether there should be a major revision or a minor revision. But it is up to the associate editor to ultimately make that decision. The AE doesn't need to take into account the reviewer's
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer review process where you do sign your name as a reviewer.  BY MR. MILLER:  Q. Was this article on ejaculation	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be a cacepted, rejected, whether there should be a major revision or a minor revision. But it is up to the associate editor to ultimately make that decision. The AE doesn't need to take into account the reviewer's recommendation.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer review process where you do sign your name as a reviewer.  BY MR. MILLER:  Q. Was this article on ejaculation frequency, was that under an open review process	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether there should be a major revision or a minor revision. But it is up to the associate editor to ultimately make that decision. The AE doesn't need to take into account the reviewer's recommendation.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer reviewer.  BY MR. MILLER:  Q. Was this article on ejaculation frequency, was that under an open review process or a blind review process?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether there should be a major revision or a minor revision. But it is up to the associate editor to ultimately make that decision. The AE doesn't need to take into account the reviewer's recommendation.  BY MR. MILLER:  Q. Yes, ma'am.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	think that I review the paper to, you know, certainly determine whether I agree with the methods that were used in the paper. But most of the time the comments that I provide are a peer as a peer reviewer deal with sort of the clarity of the data presentation or the author's interpretations of the findings based on sort of the quality of the study.  Q. And as a peer reviewer, oftentimes you'll so to be clear, the authors that want to get the article published, they don't know who the peer reviewers are? That's a blind process; is that fair?  MR. COPLE: Objection to form. Vague.  A. It really depends on journal to journal. So more and more journals are actually having an open peer reviewer.  BY MR. MILLER:  Q. Was this article on ejaculation frequency, was that under an open review process or a blind review process?  A. I can I review articles frequently	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	be sent out for peer review. The associate editor would then contact potential peer reviewers and invite them to review the manuscript.  Q. And it's your understanding, certainly with this journal, that the reviewers then can make comments, and they can either recommend the journal publish the article or not; is that fair?  MR. COPLE: Objection to form.  A. So, again, for this particular journal, and it does vary from journal to journal, but this particular journal does allow the reviewers to weigh in on whether or not the article should be accepted, rejected, whether there should be a major revision or a minor revision. But it is up to the associate editor to ultimately make that decision. The AE doesn't need to take into account the reviewer's recommendation.  BY MR. MILLER:  Q. Yes, ma'am.  And so articles can be revised on the

	Page 26		Page 28
1	MR. COPLE: Objection. Vague.	1	objection to that, no.
2	A. It is common for an article that's	2	Q. What's a forest plot?
3	been reviewed to go back to the authors for	3	A. So when I think of a forest plot, I
4	revisions, yeah, that is common.	4	think of a plot that is used to visually depict
5	BY MR. MILLER:	5	the results of different studies, the point
6	Q. And with most journals, the lead	6	estimates, along with their confidence
7	author is the first author that is mentioned on	7	intervals.
8	the article; is that true?	8	Q. Do you use forest plots in the
9	MR. COPLE: Objection. Vague, lacks	9	practice of epidemiology?
10	foundation.	10	A. I have never used a forest plot in my
11	A. So in this case I was the first	11	own work, no.
12	article because I drafted the manuscript, but I	12	Q. And speaking of your own work, it's
13	think the order of authors and how that's	13	fair to say it's primarily cancer, and it's
14	decided probably varies a lot from group to	14	primarily the cancer in the context of urology;
15	group, and certainly across disciplines.	15	is that fair?
16	BY MR. MILLER:	16	A. I would describe myself as a cancer
17	Q. Would it be fair to say on this	17	epidemiologist. Most of my own research has
18	article you would be the lead author?	18	been in the area of prostate cancer.
19	A. I am the first author on this	19	Q. Would it be fair to say you've done
20	publication. I don't really know what you mean	20	any or one article on non-Hodgkin's lymphoma
21	by "the lead author."	21	cancer?
22	Q. You don't use the phrase "lead	22	A. I have one published study on
23	author"?	23	Hodgkin's lymphoma that's listed on my CV. I
24	A. Well, I don't to me, someone is a	24	have no publications related to non-Hodgkin's
25	first author or a co-author or a last author.	25	lymphoma. But, again, that reflects my own sort
	Page 27		Page 29
1	Those are the sort of positions of authorship	1	of research interest and not, you know, what I
2	that I would use.	2	feel qualified to evaluate as a cancer
3	<ul> <li>Q. Okay. Was this article rejected or</li> </ul>	3	epidemiologist.
4	requested to be revised?	4	Q. Are you currently working on any
5	A. It went through a couple of rounds of	5	non-Hodgkin's lymphoma research?
6	revisions, yes.	6	MR. COPLE: Objection. Vague.
7	Q. And when you put the phrase in your	7	A. No, I'm not.
8	conclusion that this study was strong evidence,	8	BY MR. MILLER:
9	we looked at earlier, it's the first sentence of	9	Q. Okay. Now, you and I were discussing
10	your conclusion, did anyone object to you	10	Bradford-Hill earlier, and I think you said
11	calling this strong evidence?	11	something generally to the effect I'm not
12	MR. COPLE: Objection. Vague.	12	trying to quote you it's not the end-all
13	BY MR. MILLER:	13	be-all.
14	Q. Any of the reviewers?	14	But here's my question now. It is an
15	A. So	15	accepted methodology in epidemiology to
16	MR. COPLE: Objection. Vague.	16	determine causality; true?
4	A to be clear, what it says in the	17	MR. COPLE: Objection to form. Lacks
17	and a live in the interest of the street and area	18	foundation.
17 18	conclusions is "provides the strongest evidence		A CONTRACTOR OF THE PARTY OF TH
	to date." And I really don't recall whether	19	A. So it's interesting, actually, what I
18		19 20	A. So it's interesting, actually, what I teach my students is that there's actually only
18 19	to date." And I really don't recall whether anyone commented on that, but I don't think so. BY MR. MILLER:	1	
18 19 20	to date." And I really don't recall whether anyone commented on that, but I don't think so.	20	teach my students is that there's actually only
18 19 20 21	to date." And I really don't recall whether anyone commented on that, but I don't think so. BY MR. MILLER:	20 21 22 23	teach my students is that there's actually only one Bradford-Hill criterion that's actually
18 19 20 21 22	to date." And I really don't recall whether anyone commented on that, but I don't think so. BY MR. MILLER:  Q. Did any of your co-authors object to	20 21 22	teach my students is that there's actually only one Bradford-Hill criterion that's actually required for causality. That would be

that an exposure was a causal factor in the disease. But in terms of all of the other factors, they are – they're not required for causality.  BY MR. MILLER:  Q. Yes, ma'am.  And so you do teach epidemiology to medical students?  A. Primarily to students who – graduate students in public health in epidemiology.  Q. Which is the track to become an epidemiologist?  A. A flay students are getting their master's in public health. They can go not to do a variety of things in the public health field, not just epidemiology.  Q. And you teach them in that class about the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology.  A. For which class?  Q. For either — or any of these classes that you're referring to.  A. For which class?  Q. For either — or any of these classes that you're referring to.  A. The let would have been last fall.  So a year ago now was the last time I taught that course.  Q. Wat a you are personnelly under the proposition of the form of the form of the		Page 30		Page 32
disease. But in terms of all of the other factors, they are – they're not required for causality.  BY MR. MILLER:  Q. Yes, ma'm. And so you do teach epidemiology to medical students?  A. Primarily to students who – graduate students in public health in epidemiology.  Q. Which is the track to become an epidemiology?  A. Amany students are getting their master's in public health. They can go on to do a variety of things in the public health field, no rijust epidemiology.  A. I have mentioned the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria?  A. Thave mentioned the Bradford-Hill criteria?  A. Thave mentioned the Bradford-Hill criteria?  A. Thave mentioned the students use a textbook in that class?  Page 31  A. For which class?  Q. Yes.  BY MR. MILLER:  MR. COPLE: Objection to the form of the question.  A. So I'm a cancer epidemiology and also in my work in teaching cancer epidemiology.  A. Thave mentioned the students use a textbook in that class?  Page 31  A. For which class?  Q. For either – or any of these classes that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or –  A. The – it would have been last fall.  So a year ago now was the last time I taught that course.  Q. What is your definition of causation?  MR. COPLE: Objection, Vague.  A. Their the development of those everything the same about that person's cause, that three could be several different causes.  MR. COPLE: Objection, Vague.  A. Their the development of those everything the same about that person's cause, that three could be several different causes.  MR. COPLE: Objection, Vague.  A. Their two development of those everything the same about that person's cause, that three could be several differ	1	_	1	
4 for causality. 5 BY MR, MILLER: 6 Q. Yes, ma'm. 7 And so you do teach epidemiology to medical students? 9 A. Primarily to students who graduate 10 students in public health in epidemiology. 11 q. Which is the track to become an 12 epidemiology in master's in public health. They can go on to do 13 a variety of things in the public health field, 15 a variety of things in the public health field, 16 not just epidemiology. 17 Q. And you teach them in that class about the Bradford-Hill criteria? 18 A. Have mentioned the Bradford-Hill criteria? 19 A. I have mentioned the Bradford-Hill criteria? 20 criteria both in methods courses of 21 epidemiology, and also in my work in teaching 22 cancer epidemiology. 21 Q. Yes. 22 Do you have the students use a 24 textbook in that class? 23 Q. Yes. 24 Do you have the students use a 25 textbook in that class? 25 textbook in that class? 26 Q. For either or any of these classes 3 that you're referring to. 4 A. The last time I taught an epi methods 5 class there was, I believe, a recommended but 6 not required textbook by Kenneth Rohman. 27 Q. And what year was that? Was that this 6 last senester or 9 A. The it would have been last fall. 10 So a year ago now was the last time I taught 1 that course. 28 Q. What is your definition of causation? 29 Q. What is your definition of causation? 30 MR. COPLE: Objection, Vague. 31 MR. COPLE: Objection, Vague. 32 MR. COPLE: Objection, Vague. 33 MR. COPLE: Objection, Vague. 34 A. The it would have been last fall. 50 opinion. 45 A. So as an epidemiologist, I think it's most convenient to think of causatiny in terms 16 most convenient to think of causatiny in terms 17 personation to the extent it calls for a legal opinion. 46 A. So as an epidemiologist, I think it's most convenient to think of causatiny in terms 18 of the counterfactual. So you have a person who 18 is exposed to something. If you were to keep everything the same about that person's 20 person have the same would the same outcome 20 occur. 47 Copletion Lacks				
for causality.  BYMR MILLER: Q. Yes, ma'am. And so you do teach epidemiology to medical students? Q. Which is the track to become an epidemiologist? Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. Which is the track to become an epidemiology. Q. And you teach them in that class about the fired, not just epidemiology. Q. And you teach them in that class about the fired from the preadford-Hill criteria? Q. Yes, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching epidemiology, and also in my work in teaching epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching epidemiology.  Page 31  Page 31  A. For which class?  Q. For either—or any of these classes that you're referring to.  A. For which class?  Q. For either—or any of these classes that you're referring to.  A. The lest time I taught an epimethods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. Q. And what year				
5 BYMR MILLER: 6 Q. Yes, ma'am. 7 And so you do teach epidemiology to medical students? 9 A. Primarily to students who graduate students in public health in epidemiology. 10 Q. Which is the track to become an 12 epidemiologist? 11 A. Many students are getting their mot just epidemiologis in the public health field, not just epidemiology. 12 A. Many students are getting their mot just epidemiology. 13 A. Many students are getting their mot just epidemiology. 14 master's in public health. They can go on to do 15 a variety of things in the public health field, not just epidemiology. 16 not just epidemiology. 17 Q. And you teach them in that class about the Bradford-Hill criteria? 18 A. Thave mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching 2 cancer epidemiology. 23 Q. Yes. 24 Do you have the students use a textbook in that class? 25 textbook in that class? 26 Q. For either or any of these classes that you're referring to. 37 A. The last time I taught an epi methods 1 class there was, I believe, a recommended but no required textbook by Kenneth Rothman. 38 Page 31 39 A. The it would have been last fall. 30 So a year ago now was the last time I taught that course. 31 Q. What is your definition of causation? 32 MR. COPLE: Objection, Vague. 33 MR. COPLE: Objection, Vague. 34 A. The last time I taught an epi methods 1 class there was, I believe, a recommended but no required textbook by Kenneth Rothman. 31 MR. COPLE: Objection, Vague. 32 Q. Yes, mam. I'm not challenging that. 33 Last semester or - 34 A. The it would have been last fall. 35 G. Q. And what year was that? Was that this last semester or remove exposure, would the answer be? 36 MR. COPLE: Objection, Vague. 37 A. The last time I taught an epi methods 1 class fall. 38 Coprementation of causation? 39 A. The it would have been last fall. 40 So, a was an epidemiologis, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed t				-
6 Q. Yes, ma'am. 7 And so you do teach epidemiology to 8 medical students? 9 A. Primarily to students who — graduate students in public health in epidemiology. 11 Q. Which is the track to become an epidemiologist? 12 epidemiologist? 13 A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, 16 not just epidemiology. 17 Q. And you teach them in that class about the Bradford-Hill criteria? 18 A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching 22 cancer epidemiology. 20 Q. Yes. 21 Do you have the students use a 25 textbook in that class? 22 Q. For either — or any of these classes 14 that you're referring to. 23 A. The last time I taught an epi methods class there was, I believe, a recommended but 6 not required textbook by Kenneth Rothman. 22 Q. And walt year was that? Was that this last semester or — 9 A. The — it would have been last fall. 24 Q. What is your definition of causation? 15 MR. COPLE: Objection to the form of the question. 25 A. Yes. And I would say that, you know, are have estimated to be somewhere in the area of those cancers. 26 Q. What is your definition of causation? 16 A. So as an epidemiologis, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's everything the same about that person who is exposed to something. If you were to keep everything the same about that person's everything t				
And so you do teach epidemiology to medical students?  A. Primarity to students who graduate students in public health in epidemiology, and policy health in epidemiology.  A. Which is the track to become an epidemiologist?  A. Many students are getting their amount of a variety of things in the public health field, not just epidemiology.  A. Than students are getting their arrived in the Bradford-Hill criteria?  A. A have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Do you have the students use a textbook in that class?  Page 31  A. For which class?  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  A. The it would have been last fall.  So a year ago now was the last time I taught that course.  MR. COPLE: Objection Vague, and shout the proof the pidemiology, and shout the proof the pidemiology. The pidemiology and a proper proof the pidemiology and a proof the pidemiology. The pidemiology and shout the proof the pidemiology and also in my work in teaching are pidemiology. The pidemiology and also in my work in teaching are pidemiology. The pidemiology and also in my work in teaching are pidemiology. The pidemiology and also in my work in teaching are pidemiology. The pidemiology and shout the proof the pidemiology and also in my work in teaching are pidemiology. The pidemiology and a proof the pidemiology and proof and proof the pidemiology and proof the pidemiology and proof and proof the pidemiology and proof and				
medical students?  A. Primarily to students who graduate students in public health in epidemiology.  A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health filed, not just epidemiology.  A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, not just epidemiology.  A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, not just epidemiology.  A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, not just epidemiology.  Q. And you teach them in that class about the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Q. Yes.  Do you have the students use a textbook in that class?  Page 31  A. For which class?  Page 31  A. For which class?  Page 31  A. For which class?  Q. For either or any of these classes at textbook in that class?  Page 31  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or		-		
9 A. Primarily to students who – graduate students in public health in epidemiology. 1 1 Q. Which is the track to become an epidemiologist? 13 A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, not just epidemiology. 1 16 not just epidemiology. Q. And you teach them in that class about the Bradford-Hill criteria? 19 A. I have mentioned the Bradford-Hill criteria? 19 A. I have mentioned the Bradford-Hill criteria? 20 cancer epidemiology, and also in my work in teaching care repidemiology. 22 a Q. Yes. 23 Q. Yes. 24 Do you have the students use a textbook in that class? 25 textbook in that class? 26 Q. For either – or any of these classes that you're referring to. 27 A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. Q. And what year was that? Was that this last semester or – 29 A. The – it would have been last fall. So o ayear ago now was the last time I taught that course. 29 Q. What is your definition of causation? 30 MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion. 31 A. So in terms of cancer epidemiology, I think we have established that many cancers have many different causes. 31 BY MR. MILLER: 32 Q. Yes. BY MR. MILLER: 33 MR. COPLE: Objection to the form of the question. 44 A. For which class? 45 W K. MILLER: 46 Q. Yes. ma'am, I'm not challenging that. 47 Q. And what year was that? 48 Last sime I taught an epi methods of the extent of MIL. And so, you know, we talk about this it's most convenient to think of causality in terms of cancer. 49 Q. Dr. Rider, does smoking cause lung cancer. 40 P. Dr. Rider, does smoking cause lung cancer. 40 P. Dr. Rider, does smoking cause lung cancer. 41 So, you know, we talk about this in 12 W. Cople: Objection. Lacks 12 MR. COPLE: Objection. Lacks 13 MR. COPLE: Objection. Lacks 14 MR. COPLE: Objection. Lacks 15 MR. COPLE: Objection. Lacks 15 MR. COPLE: Objection. Lacks 15 MR. COPL	8		8	
students in public health in epidemiology.  Q. Which is the track to become an epidemiologist?'  A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, not just epidemiology.  Q. And you teach them in that class about the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology, and also in my work in teaching cancer epidemiology.  Page 31  A. For which class?  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  A. The last time I faught an epi methods of a say are ago now was the last time I taught that course.  A. The last in vould have been last fall.  MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  MR. COPLE: Objection, vague.  A. The last time I taught that course.  MR. COPLE: Objection, vague.  A. I believe we have established that many cancer doesn't pot was a person who is exposed to something. If you were to keep everything the same about t			9	
2. Which is the track to become an epidemiology: I 2. epidemiologist? 3. A. Many students are getting their master's in public health. They can go on to do a variety of things in the public health field, not just epidemiology. 4. A ly you teach them in that class about the Bradford-Hill criteria? 5. A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology and also in my work in teaching cancer epidemiology. 2. Q. Yes. 2. Do you have the students use a textbook in that class? 2. Page 31 2. A. For which class? 2. Q. For either — or any of these classes attat you're referring to. 4. A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. 3. Q. And what year was that? Was that this last semester or — 3. A. The — it would have been last fall. 3. So a year ago now was the last time I taught that course. 3. MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion. 4. A. So as an epidemiologist, I think it's most convenient to think of causality in terms of ancere pidemiology, at think we have extablished that many cancers have many different causes. 4. BY MR. MILLER: 4. Q. And although you don't hold yourself out as an expert in non-Hodgkin's lymphoma personally, there's no reason to believe that doesn't apply to that type of cancer as well; true?  MR. COPLE: Objection to the form of the equestion.  A. So I'm a cancer epidemiology, at the equestion.  A. So I'm a cancer epidemiologist and —  BY MR. MILLER:  A. So I'm a cancer epidemiologist and —  BY MR. MILLER:  A. So I'm a cancer epidemiologist and —  BY MR. MILLER:  A. So I'm a cancer epidemiologist and —  BY MR. MILLER:  A. So I'm a cancer epidemiologist and —  BY MR. MILLER:  A. So I'm a cancer epidemiologist and —  BY MR. MILLER:  BY MR. MILLER:  BY MR. MILLER:  A. So I'm a cancer epidemiologist and —  BY MR. would certainly be oposible that the unknown causes, many and and a series of the equestion.  BY MR. OPLE: Objection to the e	10		10	
think we have established that many cancers have many different causes.  By MR. MILLER:  Q. And you teach them in that class about the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria in that class about the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria in that class about the Bradford-Hill criteria in that many cancers have many different causes.  By MR. MILLER:  Q. And although you don't hold yourself out as an expert in on-Hodgkin's lymphoma personally, there's no reason to believe that doesn't apply to that type of cancer as well; true?  MR. COPLE: Objection to the form of the question.  A. So I'm a cancer epidemiologist and	11		11	
A. Many students are getting their master's in public health. They can go on to do to avariety of things in the public health field, not just epidemiology.  Q. And you teach them in that class about the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria both in methods courses of elegitemiology, and also in my work in teaching cancer epidemiology.  Q. Yes. Do you have the students use a textbook in that class?  Page 31  A. For which class?  Q. For either - or any of these classes that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or -  A. The it would have been last fall. So a year ago now was the last time I taught that course.  Q. What is your definition of causation? MR. COPLE: Objection, vague. Also opinion.  A. So a an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's everything the same about that person's everything the same about that person's everything the same about that is in  A. So, you know, we talk about this in	12	epidemiologist?	12	
a variety of things in the public health field, not just epidemiology.  Q. And you teach them in that class about the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Q. Yes.  Do you have the students use a textbook in that class?  Page 31  A. For which class?  A. To regired textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or  A. The -it would have been last fall.  So a year ago now was the last time I taught that course.  Q. What is your definition of causation?  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of currence except for remove exposure, would the person have the same would the same outcome of causation?  A. Cop Lie: Objection, Lacks  Q. And although you don't hold yourself out as an expert in non-Hodgkin's lymphoma personally, there's no reacopter that doesn't apply to that type of cancer as well; true?  MR. COPLE: Objection to the form of the question.  A. So I'm a cancer epidemiologist and  BYMR. MILLER:  Q. Yes, ma'am, I'm not challenging that.  A. Yes. And I would say that, you know, as that you're referring to.  3 know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL. is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer.  Q. Dr. Rider, does smoking cause lung cancer.  Q. And we use epidemiology studies were critecal in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill to a person have the same would the same outcome occur.  A. I think the epidemiology studies were critecal in determining that smoking was a causal ford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks  MR. COPLE: Objecti	13		13	many different causes.
16 not just epidemiology. 17 Q. And you teach them in that class about the Bradford-Hill criteria? 18 the Bradford-Hill criteria? 19 A. I have mentioned the Bradford-Hill criteria? 20 criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology. 21 quantity of the question. 22 cancer epidemiology. 23 Q. Yes. 24 Do you have the students use a textbook in that class? 25 textbook in that class? 26 Page 31 27 A. For which class? 28 Page 31 29 Q. For either or any of these classes that you're referring to. 30 A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. 20 And what year was that? Was that this last semester or 21 Q. What is your definition of causation? 21 Q. What is your definition of causation? 22 Q. What is your definition of causation? 23 MR. COPLE: Objection. Vague. 24 A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the aperson have the same would the same outcome occur. 24 So, you know, we talk about this in 26 Out as an expert in non-Hodgkin's lymphoma doesn't apply to that type of cancer as well; true? 20 MR. COPLE: Objection to the form of the question. 21 A. So I'm a cancer epidemiologist and 22 BY MR. MILLER: 23 BY MR. MILLER: 24 Q. Yes, ma'am, I'm not challenging that. 25 A. Yes. And I would say that, you know, we know very little about we have very few established risk factors for NHL. And so, you know, now, now, now, now, now, now, now,	14	master's in public health. They can go on to do	14	BY MR. MILLER:
the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Q. Yes.  Do you have the students use a textbook in that class?  Page 31  A. For which class?  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or  A. Theit would have been last fall. So a year ago now was the last time I taught that course.  MR. COPLE: Objection to the form of the question.  A. Yes, Mal LLER:  we know very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of sopercent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  MR. COPLE: Objection to the form of the question.  A. Yes, and I would say that, you know,  We know very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer development.  BYMR. MILLER:  A. Yes, and I would say that, you know,  we know very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause,	15	a variety of things in the public health field,	15	Q. And although you don't hold yourself
the Bradford-Hill criteria?  A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Q. Yes.  Do you have the students use a textbook in that class?  Page 31  A. For which class?  Q. For either - or any of these classes that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or  A. The - it would have been last fall.  So a year ago now was the last time I taught that course.  MR. COPLE: Objection to the form of the question.  A. So a methods courses of the question.  A. So I'm a cancer epidemiologist and  BY MR. MILLER:  A. Yes. And I would say that, you know, as the we know very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewher in the area of So percent of NHL is you know, has an unknown cause, which I think, you know, are have estimated to be somewher in the area of So percent of NHL is you know, has an unknown cause, which I think, you know, are have estimated to be somewher in the area of So percent of NHL is you know, has an unknown cause, which I think, you know, are have estimated to be somewher in the area of So percent of NHL is you know, has an unknown cause, which I think, our know, are have estimated to be somewher in the area of So percent of NHL is you know, has an unknown cause, which I think, our know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewher in the area of So percent of NHL is you know, has an unknown cause, which I think, our know, has an unknown cause, which I think, our know, has an unknown cause, which I think, our know, has an unknown cause, which I think is a cause, that there could be seve	16	not just epidemiology.	16	out as an expert in non-Hodgkin's lymphoma
A. I have mentioned the Bradford-Hill criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Q. Yes. Do you have the students use a textbook in that class?  Page 31  A. For which class?  Page 31  A. For which class?  Q. For either — or any of these classes that you're referring to. A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  A. The	17	Q. And you teach them in that class about	17	· ·
criteria both in methods courses of epidemiology, and also in my work in teaching cancer epidemiology.  Q. Yes.  Do you have the students use a textbook in that class?  Page 31  A. For which class?  Q. For either—or any of these classes that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or— A. The—it would have been last fall. So a year ago now was the last time I taught that course.  Q. What is your definition of causation? A. So I'm a cancer epidemiologist and— BY MR. MILLER:  A. So I'm a cancer epidemiologist and— BY MR. MILLER:  Q. Yes, ma'am, I'm not challenging that. A. Yes. And I would say that, you know, know, it would certainly be possible that the unknown causes, which I think, you know, are— be a transported by the commended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or— BY A. The—it would have been last fall. D. So a year ago now was the last time I taught that course.  Q. What is your definition of causation? A. So I'm a cancer epidemiologist and—  Page 31  Page 33  We know very little about—we have very few established risk factors for NHL. And so, you know, it an unknown causes, which I think, you know, are— be a transported by the cestimated to be somewhere in the area of 50 percent of NHL is—you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers?  Q. Dr. Rider, does smoking cause lung cancer?  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER:  Q. And we use epidemiology in part to do that?  Q. And we use epidemiology in part to do that?  Q. And we use epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair t	18	the Bradford-Hill criteria?	18	doesn't apply to that type of cancer as well;
21 epidemiology, and also in my work in teaching 22 cancer epidemiology. 23 Q. Yes. 24 Do you have the students use a 25 textbook in that class?  26 Page 31  1 A. For which class? 27 Page 31  28 We know very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of so percent of NHL is you know, has an unknown causes, that the causation? 29 A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. 40 A. The last time I taught and the very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown causes, that there could be several different exposures that are related to the development of those cancers. 40 What is your definition of causation? 41 A. To Pile the counter factual. So a san epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur. 4 So, you know, we talk about this in  2 mark COPLE: Objection. Lacks  2 mark m. ILL And so, You know, we talk about this in  2 mark not cancer pidemiologyst and  2				
22 cancer epidemiology. 23 Q. Yes. 24 Do you have the students use a 25 textbook in that class?  26 Page 31  27 Page 31  28 Page 31  29 Page 31  20 Page 31  21 A. For which class?  22 Page 33  23 A. Yes. And I would say that, you know,  25 Page 33  26 Page 33  27 Page 33  28 Page 34  29 Page 35  20 Page 36  20 Page 36  21 Page 37  22 Page 38  23 Page 38  24 Page 38  25 Page 38  26 Page 38  27 Page 38  28 Page 38  29 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  20 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  20 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  20 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  20 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  29 Page 39  20 Page 39  21 Page 39  22 Page 39  23 Page 39  24 Page 39  25 Page 39  26 Page 39  27 Page 39  28 Page 39  29 Page 39  20 Page 3	20		20	
23 Q. Yes. 24 Do you have the students use a 25 textbook in that class?  26 Page 31  27 Page 31  28 Page 31  29 Page 31  20 For either or any of these classes 30 that you're referring to. 40 A. The last time I taught an epi methods 51 class there was, I believe, a recommended but 62 not required textbook by Kenneth Rothman. 63 Ro a year ago now was that? 64 A. The it would have been last fall. 65 So a year ago now was the last time I taught 65 that course. 66 A. So as an epidemiologist, I think it's 67 most convenient to think of causality in terms 68 of the counterfactual. So you have a person who 79 the convenient to think of causality in terms 70 that course is exposed to something. If you were to keep 70 everything the same about that person's 71 experience except for remove exposure, would the 22 person have the same would the same outcome 23 occur. 71 Oxo Hamiltonian A. So, you know, we talk about this in 72 A. The it would have been last fall. 73 BYMR. MILLER: 74 We know very little about we have very few established risk factors for NHL. And so, you we know, it would certainly be possible that the unknown causes, which I think, you know, are have established risk factors for NHL. And so, you we know, it would certainly be possible that the unknown causes, which I think, you know, are have established risk factors for NHL. And so, you whow, are have established is the durknown causes, which I think, you know, are have established to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, which I think, you know, are have established to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, which I think, you know, are have established to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, which I think, you know, are have established to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, which I think, you know, are have established to be somewher				-
Do you have the students use a textbook in that class?  Page 31  A. For which class?  A. For which class?  Degree 31  A. For which class?  A. For which class?  Degree 31  A. For which class?  A. For which class?  Degree 31  A. For which class?  Degree 32  A. For which class?  Degree 33  A. For which class?  Degree 33  A. For which class?  Degree 34  A. For which class?  Degree 35  A. For which class?  Degree 36  A. For which class?  Degree 37  A. For which class?  Degree 38  Degree 38  Degree 39  Degree 30  Degree 4  Degree 4  Degree 30  Degree 4  Degree 30  Degree 4  Degree 4  Degree 4  Degree 30  Degree 4  Degree 4  Degree 4  Degree 4  Degree 4  Degree 30  Degree 4  Degree 5  Degree 4  Degree 5  Degree 6  D	22			
Page 31  A. For which class?  Q. For either or any of these classes that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. Q. And what year was that? Was that this last semester or A. The it would have been last fall. So a year ago now was the last time I taught that course. Q. What is your definition of causation? MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion. A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  Page 31  Re A. Yes. And I would say that, you know, we know very little about we have very few established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER:  Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks				
Page 31  A. For which class?  Q. For either or any of these classes that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or A. The it would have been last fall. So a year ago now was the last time I taught that course.  Q. What is your definition of causation? MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague. A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER: Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the exposures in the area of So pou know, we talk about this in  MR. COPLE: Objection. Lacks				
A. For which class? Q. For either or any of these classes that you're referring to. A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. Q. And what year was that? Was that this last semester or A. The it would have been last fall. So a year ago now was the last time I taught that course. Q. What is your definition of causation? A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  A. For which class? A. The and to you destablished risk factors for NHL. And so, you established risk factors for NHL. And so, you established risk factors for NHL. And so, you extablished risk factors for NHL. A know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung 20 MR. COPLE: Objection. Vague. A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER: Q. And we use epidemiology in part to do that? A. I think the epidemiology studies vere critical in determining that smoking was a cause, that there could be several different exposures that are related to the development of those cancers.  Q. And we use epidemiology in part to do that? A. I think the epidemiology studies vere critical in determining that smoking was a causal	25	textbook in that class?	25	A. Yes. And I would say that, you know,
2 Q. For either or any of these classes 3 that you're referring to. 4 A. The last time I taught an epi methods 5 class there was, I believe, a recommended but 6 not required textbook by Kenneth Rothman. 7 Q. And what year was that? Was that this 8 last semester or 9 A. The it would have been last fall. 10 So a year ago now was the last time I taught 11 that course. 12 Q. What is your definition of causation? 13 MR. COPLE: Objection, vague. Also 14 objection to the extent it calls for a legal 15 opinion. 16 A. So as an epidemiologist, I think it's 17 most convenient to think of causality in terms 18 of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the person have the same would the same outcome 22 Octur. 24 So, you know, we talk about this in 2 established risk factors for NHL. And so, you know, it would certainly be possible that the 2 unknown causes, which I think, you know, are have estimated to be somewhere in the area of 5 Dercent of NHL is you know, has an unknown causes, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  10 Q. Dr. Rider, does smoking cause lung 11 that course. 12 MR. COPLE: Objection. Vague. 13 A. I believe we have established, yes, 14 that smoking is a causal factor in lung cancer 15 development. 16 BY MR. MILLER: 17 Q. And we use epidemiology in part to do 18 that? 29 Use of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the same outcome 22 Q. And fair to say we use the 23 occur. 24 So, you know, we talk about this in 25 development. 26 Evelopment. 27 Q. And fair to say we use the 28 Bradford-Hill criteria in that		Page 31		Page 33
2 Q. For either or any of these classes 3 that you're referring to. 4 A. The last time I taught an epi methods 5 class there was, I believe, a recommended but 6 not required textbook by Kenneth Rothman. 7 Q. And what year was that? Was that this 8 last semester or 9 A. The it would have been last fall. 10 So a year ago now was the last time I taught 11 that course. 12 Q. What is your definition of causation? 13 MR. COPLE: Objection, vague. Also 14 objection to the extent it calls for a legal 15 opinion. 16 A. So as an epidemiologist, I think it's 17 most convenient to think of causality in terms 18 of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the person have the same would the same outcome 22 occur. 24 So, you know, we talk about this in 2 established risk factors for NHL. And so, you know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 5 barcow, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown causes, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown causes, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown causes, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown causes, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown cause, which I think, you know, are have estimated to be somewhere in the area of 6 50 percent of NHL is you know, has an unknown causes, which I think for ausching the ware of the unknown causes.  6 50 perc	1	A. For which class?	1	we know very little about we have very few
that you're referring to.  A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or A. The -i t would have been last fall.  So a year ago now was the last time I taught that course.  Q. What is your definition of causation?  MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  3 know, it would certainly be possible that the unknown causes, which I think, you know, are have estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER:  Q. And we use epidemiology in part to do that?  Q. And we use epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks		O. For either or any of these classes		
A. The last time I taught an epi methods class there was, I believe, a recommended but not required textbook by Kenneth Rothman. Q. And what year was that? Was that this last semester or A. The it would have been last fall. So a year ago now was the last time I taught that course. Q. What is your definition of causation? MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion. A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who si exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  A. The last time I taught bave estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER: Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks	3		3	· · · · · · · · · · · · · · · · · · ·
class there was, I believe, a recommended but not required textbook by Kenneth Rothman.  Q. And what year was that? Was that this last semester or A. The it would have been last fall.  So a year ago now was the last time I taught that course.  Q. What is your definition of causation?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, objection to the extent it calls for a legal opinion.  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome So, you know, we talk about this in  bave estimated to be somewhere in the area of 50 percent of NHL is you know, has an unknown cause, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, that there could be several different exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  BWR. COPLE: Objection. Vague.  A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER:  Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks	4		4	
Q. And what year was that? Was that this last semester or A. The it would have been last fall.  So a year ago now was the last time I taught that course.  Q. What is your definition of causation? MR. COPLE: Objection, vague. Also objection to the extent it calls for a legal opinion.  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who si exposed to something. If you were to keep everything the same about that person's exposures that are related to the development of those cancers.  Q. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague. A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER: Q. And we use epidemiology in part to do that?  Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks	5		5	have estimated to be somewhere in the area of
8 last semester or 9 A. The it would have been last fall. 10 So a year ago now was the last time I taught 11 that course. 12 Q. What is your definition of causation? 13 MR. COPLE: Objection, vague. Also 14 objection to the extent it calls for a legal 15 opinion. 16 A. So as an epidemiologist, I think it's 17 most convenient to think of causality in terms 18 of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the 22 person have the same would the same outcome 23 occur. 24 So, you know, we talk about this in 24 exposures that are related to the development of those cancers. 20 Q. Dr. Rider, does smoking cause lung 21 cancer? 21 MR. COPLE: Objection. Vague. 22 hand R. COPLE: Objection of the development of those cancers. 23 exposures that are related to the development of those cancers. 24 Psoposures that are related to the development of those cancers. 26 exposures that are related to the development of those cancers. 26 exposures that are related to the development of those cancers. 26 Ps. Rider, does smoking cause lung 27 Cancer? 28 PMR. COPLE: Objection of the exposure in the development of the tose cancers. 29 Parallel of those cancers. 20 P. And we use established, yes, that smoking is a causal factor in lung cancer opinion. 29 Parallel of those cancers. 20 Parallel of those cancers. 20 Parallel of those cancers. 20 Parallel of those cancers. 21 Parallel of those cancers. 22 Parallel of those cancers. 23 Parallel of those cancers. 24 Parallel of those cancers. 25 Parallel of those cancers. 26 Parallel of those cancers. 27 Parallel of those cancers. 28 Parallel of those cancers. 29 Parallel of those cancers. 29 Parallel of those cancers. 20 Parallel of those cancers. 20 Parallel of those cancers. 21 Parallel of those cancers. 22 Parallel of those cancers. 23 Parallel of those cancers. 24 Parallel of those cancers. 29 Parallel of those cancers. 20 Parallel of those can	6	not required textbook by Kenneth Rothman.	6	50 percent of NHL is you know, has an unknown
9 A. The it would have been last fall. 10 So a year ago now was the last time I taught 11 that course. 12 Q. What is your definition of causation? 13 MR. COPLE: Objection, vague. Also 14 objection to the extent it calls for a legal 15 opinion. 16 A. So as an epidemiologist, I think it's 17 most convenient to think of causality in terms 18 of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the 22 person have the same would the same outcome 23 occur. 24 So, you know, we talk about this in 29 those cancers. 10 Q. Dr. Rider, does smoking cause lung 11 cancer? 12 MR. COPLE: Objection. Vague. 13 A. I believe we have established, yes, 14 that smoking is a causal factor in lung cancer development. 15 BY MR. MILLER: 17 Q. And we use epidemiology in part to do that? 18 A. I think the epidemiology studies 19 A. I think the epidemiology studies 20 were critical in determining that smoking was a causal factor in lung cancer. 21 Q. And fair to say we use the 22 Bradford-Hill criteria in that regard as well? 23 MR. COPLE: Objection. Lacks	7	Q. And what year was that? Was that this	7	cause, that there could be several different
So a year ago now was the last time I taught that course.  Q. What is your definition of causation? MR. COPLE: Objection, vague. Also MR. COPLE: Objection, vague. Also Objection to the extent it calls for a legal opinion.  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who of the counterfactual. So you have a person who si s exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  So, you know, we talk about this in  O. Dr. Rider, does smoking cause lung cancer?  MR. COPLE: Objection. Vague.  A. I believe we have established, yes, that smoking is a causal factor in lung cancer development.  BY MR. MILLER:  Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks	8	last semester or	8	exposures that are related to the development of
that course.  Q. What is your definition of causation?  MR. COPLE: Objection, vague. Also  MR. COPLE: Objection, vague. Also  MR. COPLE: Objection, vague. Also  A. I believe we have established, yes,  that smoking is a causal factor in lung cancer  development.  A. So as an epidemiologist, I think it's  most convenient to think of causality in terms  of the counterfactual. So you have a person who  sexposed to something. If you were to keep  everything the same about that person's  experience except for remove exposure, would the  person have the same would the same outcome  cocur.  So, you know, we talk about this in  11 cancer?  MR. COPLE: Objection. Vague.  MR. COPLE: Objection. Va	9	A. The it would have been last fall.	9	those cancers.
12 MR. COPLE: Objection. Vague.  13 MR. COPLE: Objection, vague. Also 14 objection to the extent it calls for a legal 15 opinion. 16 A. So as an epidemiologist, I think it's 17 most convenient to think of causality in terms 18 of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the 22 person have the same would the same outcome 23 occur. 24 So, you know, we talk about this in 26 MR. COPLE: Objection. Vague. 27 A. I believe we have established, yes, 28 A. I believe we have established, yes, 29 A. I that smoking is a causal factor in lung cancer development. 29 A. I think the epidemiology in part to do 20 that? 21 causal factor in lung cancer. 22 Q. And fair to say we use the 23 Bradford-Hill criteria in that regard as well? 24 MR. COPLE: Objection. Lacks	10	So a year ago now was the last time I taught	10	Q. Dr. Rider, does smoking cause lung
MR. COPLE: Objection, vague. Also  13 A. I believe we have established, yes, 14 objection to the extent it calls for a legal 15 opinion.  16 A. So as an epidemiologist, I think it's 17 most convenient to think of causality in terms 18 of the counterfactual. So you have a person who 19 is exposed to something. If you were to keep 20 everything the same about that person's 21 experience except for remove exposure, would the 22 person have the same would the same outcome 23 occur. 24 So, you know, we talk about this in 26 that smoking is a causal factor in lung cancer development. 27 Q. And we use epidemiology in part to do 28 that? 29 A. I think the epidemiology studies 20 were critical in determining that smoking was a 21 causal factor in lung cancer. 22 Q. And fair to say we use the 23 Bradford-Hill criteria in that regard as well? 24 MR. COPLE: Objection. Lacks				
objection to the extent it calls for a legal opinion.  A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  So, you know, we talk about this in  14 that smoking is a causal factor in lung cancer development.  BY MR. MILLER:  Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer.  Q. And fair to say we use the Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks				
opinion.  15 development.  16 A. So as an epidemiologist, I think it's  17 most convenient to think of causality in terms  18 of the counterfactual. So you have a person who  19 is exposed to something. If you were to keep  20 everything the same about that person's  21 experience except for remove exposure, would the  22 person have the same would the same outcome  23 occur.  24 So, you know, we talk about this in  15 development.  16 BY MR. MILLER:  17 Q. And we use epidemiology in part to do  18 that?  19 A. I think the epidemiology studies  20 were critical in determining that smoking was a  21 causal factor in lung cancer.  22 Q. And fair to say we use the  23 Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks		· · · · · · · · · · · · · · · · · · ·		
A. So as an epidemiologist, I think it's most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  So, you know, we talk about this in  16 BY MR. MILLER:  Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer. Q. And fair to say we use the Bradford-Hill criteria in that regard as well? MR. COPLE: Objection. Lacks		•		
most convenient to think of causality in terms of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  So, you know, we talk about this in  17 Q. And we use epidemiology in part to do that?  A. I think the epidemiology studies were critical in determining that smoking was a causal factor in lung cancer. Q. And fair to say we use the Bradford-Hill criteria in that regard as well? MR. COPLE: Objection. Lacks		-		
of the counterfactual. So you have a person who is exposed to something. If you were to keep everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  20				
is exposed to something. If you were to keep  everything the same about that person's  experience except for remove exposure, would the  person have the same would the same outcome  occur.  So, you know, we talk about this in  19  A. I think the epidemiology studies  were critical in determining that smoking was a  causal factor in lung cancer.  Q. And fair to say we use the  Bradford-Hill criteria in that regard as well?  MR. COPLE: Objection. Lacks		•		
everything the same about that person's experience except for remove exposure, would the person have the same would the same outcome occur.  So, you know, we talk about this in  20 were critical in determining that smoking was a causal factor in lung cancer. Q. And fair to say we use the Bradford-Hill criteria in that regard as well? MR. COPLE: Objection. Lacks				
21 experience except for remove exposure, would the 22 person have the same would the same outcome 23 occur. 24 So, you know, we talk about this in 21 causal factor in lung cancer. 22 Q. And fair to say we use the 23 Bradford-Hill criteria in that regard as well? 24 MR. COPLE: Objection. Lacks				
person have the same would the same outcome 2 Q. And fair to say we use the 2 occur. 2 Bradford-Hill criteria in that regard as well? 2 So, you know, we talk about this in 2 MR. COPLE: Objection. Lacks				
23 occur. 23 Bradford-Hill criteria in that regard as well? 24 So, you know, we talk about this in 24 MR. COPLE: Objection. Lacks				
So, you know, we talk about this in 24 MR. COPLE: Objection. Lacks		_		•
·				
25 Chasses as, you know, putting people in time 25 foundation, vague.				•
I I	23	crasses as, you know, putting people in time	-	Touridation, vague.

Page 34 Page 36 1 A. I have no idea how the Bradford-Hill 1 A. So we found about a 20 percent 2 criteria factored into determining causation 2 decrease in risk comparing the highest category 3 in smoking and lung cancer, but that is a 3 of ejaculation frequency to four to seven times 4 4 disease for which, when we did the epidemiologic per month. 5 studies, we were seeing adjusted relative risks, 5 Q. Yes, ma'am. 6 you know, on the order of 20. So very, very 6 And you felt that was important enough 7 strong associations between the exposure and the 7 to be put in the medical literature; true? 8 MR. COPLE: Objection. Vague. outcome. 8 9 BY MR. MILLER: 9 A. I certainly felt that it was important 10 Q. You certainly don't think that one has 10 to publish the study, because it tells us 11 to have odds ratios of 20 in order to find 11 something potentially about the etiology of 12 causality, do you? 12 prostate cancer. But nowhere in this article MR. COPLE: Objection to the form of 13 13 will you find me suggesting that we should make 14 the question. Vague. 14 public health recommendations based on the 15 A. So I think that when we're talking 15 16 about risk factors that have only, you know, 16 BY MR. MILLER: very modest associations with the outcome, it Q. And the publisher of the articles felt 17 17 18 becomes much harder to ensure that the 18 it was important enough to publish it; true? 19 MR. COPLE: Objection. Lacks 19 association that we're seeing is actually a 20 causal association. 20 foundation. 21 So going back to the lung cancer 21 A. I think science advances because 22 example, when you see a relative risk on the 22 articles are published, the scientific community 23 order of 20, it's very difficult to come up with 23 gets an opportunity to discuss those results to a potential confounding factor that could 24 24 formulate additional studies that can follow up 25 25 explain all of that association that we see, on those results. But, you know, the reason for Page 35 Page 37 1 because that factor would have to be incredibly 1 publishing an article is not because you've 2 tightly related to the exposure and also a very, 2 established causation. 3 very strong risk factor for the outcome. But 3 BY MR. MILLER: when you're looking at a relative risk of, you 4 Q. Nor did I suggest that. 4 5 5 know, 1.2, even a relatively weak confounder You did say in your article that 6 you've established strong evidence of a --6 could be responsible for that entire association 7 7 A. Sorry. we see. 8 8 Q. Strong evidence to date of a So, no, while theoretically it's 9 9 possible to find causes of the outcome that are beneficial role of ejaculation to prevent 10 small, it's very difficult to do that in an 10 prostate cancer; right? 11 MR. COPLE: Objection. Asked and 11 epidemiologic study. 12 12 BY MR. MILLER: answered. 13 A. It says in the conclusions that this 13 Q. Sure. 14 study "provides the strongest evidence to date 14 But when there are associations of 15 of a beneficial role of ejaculation in 15 20 percent, public policy decisions are often 16 made on those associations, aren't they? 16 prevention of prostate cancer." 17 MR. COPLE: Objection. Lacks 17 BY MR. MILLER: 18 O. Sure. 18 foundation, vague. 19 And you know that articles like this 19 A. Yeah, I have no idea. I would need a 20 are read by urologists who actually see and 20 specific example. 21 treat patients in an office setting; true? 21 BY MR. MILLER: 22 A. Yes, I imagine the primary audience 22 Q. Well, let's use yours. Exhibit 1, 23 for this particular journal is -- are 23 your ejaculation frequency, what's the 24 percentage of reduced risk of prostate cancer 24 urologists. 25 Q. Sure. 25 from your study?

	Page 38		Page 40
1	So it would you would not be	1	Q. As we sit here today, we can both
2	surprised to learn that urologists are making	2	agree, I think, that there have been people out
3	decisions with real patients based upon these	3	there who have gotten oropharyngeal cancer as a
4	kinds of articles that they read from experts in	4	result of smoking; true?
5	the field; right?	5	MR. COPLE: Objection. Lacks
6	MR. COPLE: Objection, vague. Object	6	foundation, vague, form of the question.
7	to the form of the question.	7	A. Again, I would say that oropharyngeal
8	BY MR. MILLER:	8	cancer, one risk factor for that cancer is
9	Q. You can answer.	9	smoking. But we can never know on an individual
10	A. I think that urologists are interested	10	level, of course, what caused someone's cancer.
11	in research surrounding prostate cancer, even	11	BY MR. MILLER:
12	when the point of that research isn't to make	12	Q. So we never know what causes someone's
13	public health or clinical recommendations. So,	13	cancer?
14	you know, nowhere in this article did we	14	A. Not an individual, I'm afraid, no,
15	instruct the clinical community to advise their	15	because we don't have the time machine.
16	patients to change their behavior based on our	16	Q. Very good. All right.
17	results.	17	Is Roundup a risk factor for
18	Q. What is the level of certainty that an	18	non-Hodgkin's lymphoma?
19	expert needs before they can say there is	19	MR. COPLE: Objection. Vague.
20	causation?	20	A. In my review of the epidemiologic
21	MR. COPLE: Objection. Vague.	21	literature, I would say there is no evidence
22	A. It varies very much from situation to	22	that Roundup is a risk factor for NHL.
23	situation.	23	BY MR. MILLER:
24	BY MR. MILLER:	24	Q. And in your review of the literature,
25	Q. How many epidemiological studies were	25	did you review the IARC report on the issue?
	Page 39		Page 41
1	available to scientists before they concluded	1	A. I did read through the IARC report,
2	smoking causes lung cancer?	2	yes.
3	MR. COPLE: Objection. Lacks	3	Q. You said you read through it. Did you
4	foundation.	4	read the whole thing?
5	A. I don't recall. It's been a long time	5	A. I definitely skimmed over the entire
6	since I've reviewed all of the specific studies.	6	thing, but the IARC report wasn't critical to me
7	BY MR. MILLER:	7	coming to my own independent expert opinion
8	Q. Sure.	8	because I thought it was important to go back to
9	Does smoking cause oral cancers?	9	the primary studies.
10	MR. COPLE: Objection. Vague.	10	MR. MILLER: Take a break and walk my
11	A. So smoking is a risk factor for	11	knee like we talked about. I appreciate your
12	oropharyngeal cancers, say.	12	indulgence.
13	BY MR. MILLER:	13	THE VIDEOGRAPHER: Going off the
14	Q. When we say "risk factor for	14	record. The time is 9:37.
15	oropharyngeal cancer," if a student were to	15	(Whereupon, a recess was taken.)
16	raise their hand and say, Dr. Rider, my uncle	16	THE VIDEOGRAPHER: Back on the record.
17	smokes tobacco, is he at increased risk of	17	The time is 9:41.
18	oropharyngeal cancer, what would the answer be?	18	MR. COPLE: Confirm who is on the line
19	MR. COPLE: Objection. Vague,	19	again, Mike. We're on the record.
20	incomplete hypothetical.	20	MR. MILLER: We're back on the record,
21	BY MR. MILLER:	21	and it's just Mr. Traverse on the phone, right?
22	Q. You can answer.	22	All right. Hearing no one argue with me, I
		. 22	assume it's just Mr. Traverse on the phone
23	A. So I would say that smoking is one	23	assume it's just Mr. Traverse on the phone.
	A. So I would say that smoking is one established risk factor for oropharyngeal cancer.	24 25	MR. COPLE: Mr. Traverse, are you still with us now?

	Page 42		Page 44
1	MR. TRAVERSE: Yes. I'll be on the	1	A. I did read it, yes, but I did not rely
2	whole time.	2	on any other meta-analysis in coming up with my
3	BY MR. MILLER:	3	own expert opinion.
4	Q. Dr. Rider, let's get back to work.	4	Q. So you did not rely upon the Chang
5	Do any other pesticides cause	5	meta-analysis; is that right? I just want to
6	non-Hodgkin's lymphoma?	6	make sure.
7	MR. COPLE: Objection. Vague.	7	A. That is correct. I thought it was
8	BY MR. MILLER:	8	important to evaluate all of the primary
9	Q. Or herbicides?	9	studies, so that's how I approached my own
10	MR. COPLE: Objection. Vague.	10	review of the literature.
11	A. I have not reviewed all of the	11	Q. Do you know Dr. Chang?
12	evidence for all other pesticides.	12	A. We both are graduates of the Harvard
13	BY MR. MILLER:	13	School of Public Health. We may or may not have
14	Q. So it's fair to say, as we sit here	14	overlapped for a year. So I certainly know of
15	today, you do not hold an opinion to a	15	her, but we don't know each other well.
16	reasonable degree of scientific certainty that	16	Q. Are you Facebook friends?
17	other herbicides or pesticides, other than	17	A. No, we are not Facebook friends.
18	glyphosate, cause non-Hodgkin's lymphoma; true?	18	Q. That's the rage these days, isn't it?
19	MR. COPLE: Objection. Argumentative.	19	What I have, and I'll mark it as 23-3,
20	A. My role was to evaluate all of the	20	this is the forest plots from Dr. Chang's
21	epidemiologic studies on glyphosate and NHL, so	21	meta-analysis, see if you've seen this before.
22	that's what I have reviewed.	22	(Whereupon, Rider Exhibit 23-3, Forest
23	BY MR. MILLER:	23	plots from Dr. Chang's meta-analysis,
24	Q. Yes, ma'am.	24	was marked for identification.)
25	Is there a difference between a human	25	MR. COPLE: Is there a question
	Page 43		Page 45
1	health risk and a human health hazard?	,	
	neutin fisk and a naman neutin nazara.	1	pending?
2		2	pending? MR. MILLER: Yes.
2	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you		
	MR. COPLE: Objection. Vague.	2	MR. MILLER: Yes.
3	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you	2	MR. MILLER: Yes. BY MR. MILLER:
3 4	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you mean by that.	2 3 4	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before?
3 4 5	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER:	2 3 4 5	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is
3 4 5 6	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay.	2 3 4 5 6	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right
3 4 5 6 7	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2,	2 3 4 5 6 7	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came
3 4 5 6 7 8	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational	2 3 4 5 6 7 8	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from.
3 4 5 6 7 8 9	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you mean by that.  BY MR. MILLER:  Q. Me either. Okay.  (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide	2 3 4 5 6 7 8 9	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER:
3 4 5 6 7 8 9	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you mean by that.  BY MR. MILLER:  Q. Me either. Okay.  (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active	2 3 4 5 6 7 8 9	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer.
3 4 5 6 7 8 9 10	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and	2 3 4 5 6 7 8 9 10	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean,
3 4 5 6 7 8 9 10 11	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for	2 3 4 5 6 7 8 9 10 11	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some
3 4 5 6 7 8 9 10 11 12	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.)	2 3 4 5 6 7 8 9 10 11 12 13	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is
3 4 5 6 7 8 9 10 11 12 13	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether
3 4 5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you mean by that.  BY MR. MILLER:  Q. Me either. Okay.  (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.)  BY MR. MILLER:  Q. I show you what we've marked as	2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper.
3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. COPLE: Objection. Vague.  A. Yeah, I really have no idea what you mean by that.  BY MR. MILLER:  Q. Me either. Okay.  (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.)  BY MR. MILLER:  Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER: Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this for me, ma'am.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest of the paper is missing. Let's mark the rest of
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER: Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this for me, ma'am. A. I actually can't identify this. It	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest of the paper is missing. Let's mark the rest of the paper. We'll mark it as 23-4.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER: Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this for me, ma'am. A. I actually can't identify this. It just says that it's supplementary information,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest of the paper is missing. Let's mark the rest of the paper. We'll mark it as 23-4. Before I do, I want to go back to an
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER: Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this for me, ma'am. A. I actually can't identify this. It just says that it's supplementary information, but there are no authors listed. I'm not	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest of the paper is missing. Let's mark the rest of the paper. We'll mark it as 23-4. Before I do, I want to go back to an answer you just gave. Did you say you performed
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER: Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this for me, ma'am. A. I actually can't identify this. It just says that it's supplementary information, but there are no authors listed. I'm not exactly sure what this is.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest of the paper is missing. Let's mark the rest of the paper. We'll mark it as 23-4. Before I do, I want to go back to an answer you just gave. Did you say you performed your own meta-analysis?
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: Objection. Vague. A. Yeah, I really have no idea what you mean by that. BY MR. MILLER: Q. Me either. Okay. (Whereupon, Rider Exhibit 23-2, Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis, was marked for identification.) BY MR. MILLER: Q. I show you what we've marked as Exhibit 23-2, and ask if you can identify this for me, ma'am. A. I actually can't identify this. It just says that it's supplementary information, but there are no authors listed. I'm not exactly sure what this is. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. MILLER: Yes. BY MR. MILLER: Q. Have you seen this before? A. So I mean, this is MR. COPLE: I'm going to object right now. We don't know which document this came from. BY MR. MILLER: Q. You can answer. A. Yeah, I am afraid I agree. I mean, this is just the forest plot from some meta-analysis, but the rest of the paper is missing, so it's hard for me to confirm whether or not it's from that paper. Q. Sure. And I agree with you the rest of the paper is missing. Let's mark the rest of the paper. We'll mark it as 23-4. Before I do, I want to go back to an answer you just gave. Did you say you performed your own meta-analysis? A. I did not say I performed a

1 did not do a meta-analysis? 2 A. I did not complete a meta-analysis as part of my review, no. 4 Q. Did you start one? 5 A. I actually think that meta-analyses 6 have limited value when the studies that you would include in them have problems with their internal validity, because those problems would then carry through to the results of the meta-analysis, and think it's much more useful to individually analyze the individual studies. 2 Q. I remember that from your report. But did you start a meta-analysis. 3 day out start a meta-analysis. 4 MR. COPLE: Objection. Asked and 5 sawered. 5 A. I did not start a meta-analysis? 6 A. So I did not do a pooled analysis? 7 BY MR. MILLER: 8 because. again, what I felt was important were the independent were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Page 47  1 Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope. 2 The work of the guestion.  Page 47  1 Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  Page 47  1 Q. The going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  Page 47  1 Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  Page 47  1 Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  Page 49  1 Q. Yes. A. So I mean, for one, the number of cases of NHL that had developed by the publication of the curb during in drafting of the 2013 manuscript dat tripled, so the first thing would just the publication of the up-with think it would be valuable in the individual studies.  10 WR II that that that was that the additional case numbers and the longer follow-up in me would have been the two issues.  10 We'll go back to that later, but thank you.  11 Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  12 Q. I'm going to find that page		Page 46		Page 48
2 2005 version? 3 part of my review, no. 4 Q. Did you start one? 5 A. I actually think that meta-analyses 6 have limited value when the studies that you 7 would include in them have problems with their 8 internal validity, because those problems would 9 then carry through to the results of the 10 meta-analysis, so I think it's much more useful 11 to individually analyze the individual studies. 12 Q. I remember that from your report. But 13 did you start a meta-analysis? 14 MR. COPLE: Objection, Asked and 15 answered. 16 A. I did not start a meta-analysis 17 because I didn't think it would be valuable in 18 synthesizing this particular literature. 19 BY MR. MILLER: 20 Q. Did you do a pooled analysis? 21 A. So I did not do a pooled analysis? 22 because, again, what I felt was important were 23 the independent - were the primary studies in 24 evaluating all of the strengths and limitations 25 of those individual studies.  Page 47  Q. I'm going to find that page so we can 1 te them up, and then we'll sort of move on 2 here, I hope. 3 A. That the updated analysis addressed? 4 Q. Yes. 4 A. So I mean, for one, the number of 2 cases of MIH. that had developed by the 2 publication - by the time the publication of 3 the - or the time of the drafting of the 2013 3 manuscript had tripled, so the first thing would 3 manuscript had tripled, so the first thing would 4 publication - by the time the publication of 4 the - or the time of the drafting of the 2013 4 MR. OPLE: Objection to the valuable in 5 work have now go 22-33, which is the forest plot 4 and pour concern that you didn't - you weren't 5 we have now go 22-33, which is the forest plot 6 and your concern that you didn't - you weren't 6 review on the Agricultural Health Study?  MR. COPLE: Do you have a copy for us?  Page 49  A. For me, I think that that was — that 6 the advantage the move the published 5 that your of the developed by the 6 meta-analysis, which is the forest plot 6 and your concern that you didn't - you weren't 9 and pour concern that you didn't - you	1		1	
3 part of my review, no. 4 Q. Did you start one? 5 A. I actually think that meta-analyses have limited value when the studies that you would include in them have problems with their internal validity, because those problems would then carry through to the results of the meta-analysis, so I think it's much more useful to individually analyze the individual studies. 2 Q. I remember that from your report. But did you start a meta-analysis' and the control of the question. 3 A. That the updated analysis and control of the cases of NHL that had developed by the publication of the control of the question. 4 Q. I remember that from your report. But did you start a meta-analysis of the control o				
4 Q. Yes.  5 A. I actually think that meta-analyses 6 have limited value when the studies that you 7 would include in them have problems with their 8 internal validity, because those problems with their 10 meta-analysis, so I think it's much more useful 11 to individually analyze the individual studies. 12 Q. I remember that from your report. But 13 did you start a meta-analysis? 14 MR. COPLE: Objection. Asked and 15 answered. 16 A. I did not start a meta-analysis 17 because I didn't think it would be valuable in 18 synthesizing this particular literature. 19 BY MR. MILLER: 20 Did you do a pooled analysis. 21 A. So I did not do a pooled analysis. 22 because, again, what I felt was important were 23 the independent - were the primary studies in 24 evaluating all of the strengths and limitations of those individual studies.  Page 47  Q. I'm going to find that page so we can 15 the them up, and then we'll sort of move on 25 for love won the Agricultural Health 26 Study offered the strongest level of evidence 27 for a variety of reasons that I outline in my 28 report. 29 query of reasons that I outline in my 29 report. 20 Q. Yes, ma'am. 21 Q. Yes ma'am. 22 report. 23 BY MR. MILLER: 24 Q. Yes ma'am. 25 MR. COPLE: Objection to the form of 26 the question. 27 A. Tell that the Agricultural Health 28 Study offered the strongest level of evidence 29 for a variety of reasons that I outline in my 20 report. 21 Q. Yes, ma'am. 22 proport. 23 BY MR. MILLER: 24 Q. Yes, ma'am. 25 G. Okay. And what that is is a forest 26 plocked and are analysis? 27 MR. COPLE: Objection to the form of 28 the question. 29 A. I felt that the Agricultural Health 20 Study offered the strongest level of evidence 21 for a variety of reasons that I outline in my 22 report. 23 BY MR. MILLER: 34 Q. Yes, ma'am. 35 A. To the independent - were the primary studies in 36 A. To the drafting of the 2013 37 manuscript had tripled, so the first thing would just be an increase in case numbers. 30 A. So I mean, for one, the tublication of the 2013 31 manuscript ha		- · · · · · · · · · · · · · · · · · · ·	3	A. That the updated analysis addressed?
5 A. I actually think that meta-analyses 6 have limited value when the studies that you 7 would include in them have problems with their internal validity, because those problems would the carry through to the results of the 10 meta-analysis, so I think it's much more useful 11 to individually analyze the individual studies.  12 Q. I remember that from your report. But 12 did you start a meta-analysis? 14 MR. COPLE: Objection. Asked and 2 answered. 25 MR. MILLER: 20 Q. Did you do a pooled analysis, 21 because I didn't think it would be valuable in 3 synthesizing this particular literature. 23 A. So I did not do a pooled analysis, 22 because, again, what I felt was important were the independent — were the primary studies in evaluating all of the strengths and limitations of those individual studies. 24 While we're waiting for that, fair to 3 say you put the most emphasis in your expert review on the Agricultural Health 5 And not just the published one; right? 4 A. Well, I had come to my opinion 1 gearding the epidemiologic literature before 1 had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscripts didn't change my — alter my expert opinion, I did think it provided confirmatory 24 evidence and addressed some of the susues that I outline in my regarding the epidemiologic literature before 1 had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my — alter my expert opinion, I did think it provided confirmatory 24 evidence and addressed some of the susues that I outline in woll and the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscripts didn't change my — alter my expert opinion, I did think it provided confirmatory 24 evidence and addressed some of the such substant and the opportunity to see the draft manuscripts and the longer right? A men of the time of the time draft manuscript didn't change my — alter my expert opinion, I did think it provided conf			4	
bave limited value when the studies that you would include in them have problems with their internal validity, because those problems would then carry through to the results of the meta-analysis, so I think it's much more useful to individually analyze the individual studies.  Q. I remember that from your report. But did you start a meta-analysis of MR. COPLE: Objection. Asked and answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  BY MR. MILLER:  Q. Did you do a pooled analysis?  A. So I did not do a pooled analysis, because, again, what I felt was important were the evaluating all of the strengths and limitations of those individual studies.  Page 47  Q. I'm going to find that page so we can tie them up, and then well sort of move on heary on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  BY MR. MILLER:  Q. Yes, ma'am.  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscript shad the opportunity to see the draft manuscript shad for identification.)  BY MR. MILLER:  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscript and the longer follow-up time would have been the two issues.  Q. Anything else?  A. For me, I think that that at wa — that the addictional case in case numbers and the longer follow-up time would have been the two issues.  Q. We'll go back to that later, but thank you.  Okay, Let's look, if we could, then, we have now go 23-3, which is the fould Change my was now go 23-3, which is the forest plot and your concern that you didn't — you weren't sure where it came from so, we marked 23-4, which is the full Chang article.  If you'd be kind enough to turn to peage 404 in that article, I believe you'll see that — The work of the sure was a	5		5	
would include in them have problems with their internal validity, because those problems would the then carry through to the results of the meta-analysis, so I think it's much more useful to individually analyze the individual studies.  10	6	· · · · · · · · · · · · · · · · · · ·	6	
because, again, what I felt was important were the independent were the primary studies of those individual studies.  Page 47  Q. I'm going to find that page so we can the them up, and then we'll sort of the strengths and limitations of those individual studies.  Page 47  Q. I'm going to find that page so we can the them up, and then be greatened the them up, and then be greatened to greatened the state one of the them up, and then be greatened to greatened the treview on the Agricultural Health Study?  MR. COPLE: Objection to the form of the greating the review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the greating the review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the greating the review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the greating the regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that tripled, so the first thing would just be an increase in case numbers.  Q. Anything else?  Q. We'll go back to that later, but thank you.  Okay. Let's look, if we could, then, we have now got 23-3, which is the forest plot and your concern that you didn't — you weren't sure where it came from, so we marked 23-4, which is the full Chang article. If you'd be kind enough to turn to page 404 in that article, I believe you'll see that —  MR. COPLE: Do you have a copy for us?  Page 47  Page 47  MR. COPLE: Objection to the form of the full that page so we can the tenth of the strengths and limitations of the tenth of the strengths and limitations of the tenth of the strengths and limitations of the strength of the strengths and limitations of the strengths and limi	7		7	* *
then carry through to the results of the meta-analysis, so I think it's much more useful to individually analyze the individual studies.  Q. I remember that from your report. But did you start a meta-analysis?  MR. COPLE: Objection. Asked and answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  By MR. MILLER:  Q. Did you do a pooled analysis?  A. So I did not do a pooled analysis.  because, again, what I felt was important were the independent were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here. I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  A. Tell that the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. CO	8	internal validity, because those problems would	8	
to individually analyze the individual studies.  Q. I remember that from your report. But did you start a meta-analysis?  MR. COPLE: Objection. Asked and answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  By MR. MILLER:  Q. Did you do a pooled analysis?  A. So I did not do a pooled analysis.  Decause, again, what I felt was important were the independent — were the primary studies in evidence individual studies.  Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  MR. COPLE: Objection. Asked and answered.  A. I felt that the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Do you have a copy for us?  MR. COPLE: Do you have a copy for us?  Page 49  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  MR. COPLE: Objection to the form of the question.  M	9		9	
did you start a meta-analysis?  MR. COPLE: Objection. Asked and answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  BYMR. MILLER:  O. Did you do a pooled analysis.  because, again, what I felt was important were the independent — were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Dage 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study?  A. I for me, I think that that was — that the additional case numbers and the longer follow-up time would have been the two issues.  Q. We'll go back to that later, but thank you.  Okay. Let's look, if we could, then, we have now got 23-3, which is the forest plot and your concern that you din'th — you weren't sure where it came from, so we marked 23-4, which is the full Chang article.  If you'd be kind enough to turn to Page 404 in that article, I believe you'll see that —  MR. COPLE: Do you have a copy for us?  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibiti 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  MR. MILLER:  Q. Yes, ma'am.  And not just the published one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts in the propertion of the issues that the additional case numbers and because in the world in that is is a forest plot.  Q. Yes, it is a forest plot.  Q. Okay. And what that is i	10	meta-analysis, so I think it's much more useful	10	just be an increase in case numbers.
did you start a meta-analysis?  MR. COPLE: Objection. Asked and answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  BY MR. MILLER:  O. Did you do a pooled analysis?  C. Did you do a pooled analysis.  Decause, again, what I felt was important were evaluating all of the strengths and limitations of those individual studies.  Page 47  O. I'm going to find that page so we can tie them up, and then we'll sort of move on say you put the most emphasis in your expert review on the Agricultural Health Study.  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health  Study offered the strongest level of evidence on regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory and the most emphasis of the sisues that or coloned and the surplex and the solone individual studies.  because, again, what I felt was important were the independent were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Page 47  Page 47  Page 47  Page 49  MR. COPLE: Do you have a copy for us?  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLER: Op you have a copy for us?  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the	11	to individually analyze the individual studies.	11	Q. Anything else?
MR. COPLE: Objection. Asked and answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  By MR. MILLER: Degree of the independent were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope. While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study? MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts at a winch is the full change when the two issues. Q. We'll go back to that later, but hank you. Okay. Let's look, if we could, then, we have now got 23-3, which is the forest plot and your concern that you didn't - you weren't sure where it came from, so we marked 23-4, which is the full Chang article.  If you'd be kind enough to turn to Page 404 in that article, I believe you'll see that MR. COPLE: Do you have a copy for us?  Page 404 in that article, I believe you'll see that MR. COPLE: Do you have a copy for us?  MR. MILLER:  MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one:  THE WITNESS: I don't have one.  MR. MILLER: Q. Yes, ma'am.  A. Q. Yes, ma'am.  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my - alter my expert opinion, I did think it provided confirmatory  evidence and addr	12	Q. I remember that from your report. But	12	A. For me, I think that that was that
answered.  A. I did not start a meta-analysis because I didn't think it would be valuable in synthesizing this particular literature.  BY MR. MILLER:  Q. Did you do a pooled analysis, A. So I did not do a pooled analysis, A. So I did not do a pooled analysis, A. So I did not do a pooled analysis, because, again, what I felt was important were the independent were the primary studies in devaluating all of the strengths and limitations of those individual studies.  Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on her, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  And not just the published Agricultural Health Study, but the unpublished one: right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft annuscript didn't change my alter my expert opinion, I did think it provided confirmatory  Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Well, I had come to form for so while that draft annuscript didn't change my alter my expert opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that  15 Okay. Let's look, if we could, then, we have now got 23-3, which is the forest plot and your concern that you didn't you weren't sure where it came from, so we marked 23-4, which is the full Chang art you're here it came from, so we marked 23-4, which is the forly oble kind enough to be kind enough to tun to the table sure where it came from, so we marked 23-4.  If you'd be kind enough to be kind enough to lith MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic	13	did you start a meta-analysis?	13	the additional case numbers and the longer
16 A. I did not start a meta-analysis 17 because I didn't think it would be valuable in 18 synthesizing this particular literature. 19 BY MR. MILLER: 20 Q. Did you do a pooled analysis, 21 A. So I did not do a pooled analysis, 22 because, again, what I felt was important were 23 the independent were the primary studies in 24 evaluating all of the strengths and limitations 25 of those individual studies.  Page 47  Page 49  1 Q. I'm going to find that page so we can 22 tie them up, and then we'll sort of move on 3 here, I hope. 3 here, I hope. 4 While we're waiting for that, fair to 4 say you put the most emphasis in your expert 5 review on the Agricultural Health 10 Study offered the strongest level of evidence 11 for a variety of reasons that I outline in my 12 report. 13 BY MR. MILLER: 14 Q. Yes, ma'am. 15 And not just the published 16 Agricultural Health Study, but the unpublished 17 one; right? 18 You'd be kind enough to turn to 29 Use where it came from, so we marked 23-4, which is the forest plot and your concern that you didn't you weren't we have now got 23-3, which is the forest plot and your concern that you didn't you weren't we have now got 23-3, which is the forest plot and your concern that you didn't you weren't we have now got 23-3, which is the forest plot and your concern that you didn't you weren't we have now got 23-3, which is the forest plot which is the full Chang article.  17 If you'd be kind enough to turn to 29 Page 404 in that article, I believe you'll see that 20 MR. COPLE: Do you have a copy for us?  Page 49  Page 49  Page 49  Page 49  Page 49  MR. MILLER: Sure (handing). ((Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes, and the forest plot.  A. Wes, i	14	MR. COPLE: Objection. Asked and	14	follow-up time would have been the two issues.
17    because I didn't think it would be valuable in synthesizing this particular literature.   18    we have now got 23-3, which is the forest plot and your concern that you didn't you weren't came from, so we marked 23-4, which is the full Chang article.   19    and your concern that you didn't you weren't came from, so we marked 23-4, which is the full Chang article.   22    If you'd be kind enough to turn to   Page 404 in that article, I believe you'll see   that   25    MR. COPLE: Do you have a copy for us?   26    MR. MILLER: Sure (handing).   Whereupon, Rider Exhibit 23-4, Chang   and Delzell article, Systematic review and meta-analysis of glyphosate   exposure and risk of   lymphohematopoietic cancers, was marked for identification.)   MR. HOLLINGSWORTH: Does the witness have one?   12    MR. MILLER:   13    MR. MILLER:   14    Q. Yes, ma'am.   15    And not just the published   Agricultural Health Study, but the unpublished   7    One; right?   17    A. Yes.   18    A. Well, I had come to my opinion   19    regarding the epidemiologic literature before I   had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory   24    evidence and addressed some of the issues that   24    Q. Io means no effect; right?   24    Q. Io means no effect; right?   25    A. Meh-mm.   26    D. Io means no effect; right?   26    D. Io means no effect; right?   27    D. Io means no effect; right?   28    D. Io means no effect; right?   29    D. Io means no effect; right?   29    D. Io means no effect; right?   29    D. Io means no effect; right?   20	15	answered.	15	Q. We'll go back to that later, but thank
synthesizing this particular literature.  18		•		
19 BY MR. MILLER: 20 Q. Did you do a pooled analysis? 21 A. So I did not do a pooled analysis, 22 because, again, what I felt was important were 23 the independent — were the primary studies in 24 evaluating all of the strengths and limitations 25 of those individual studies.  Page 47  1 Q. I'm going to find that page so we can 25 tite them up, and then we'll sort of move on 3 here, I hope.  While we're waiting for that, fair to 5 say you put the most emphasis in your expert 6 review on the Agricultural Health Study? 7 MR. COPLE: Objection to the form of 8 the question. 9 A. I felt that the Agricultural Health 10 Study offered the strongest level of evidence 11 for a variety of reasons that I outline in my 12 report. 13 BY MR. MILLER: 14 Q. Yes, ma'am. 15 And not just the published 16 Agricultural Health Study, but the unpublished 17 one; right? 18 A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I one; right? 20 and your concern that you didn't — you weren't sure tame from, so we marked 23-4, which is the full Chang article. 12 which is the full Chang article. 12 which is the full Chang article. 14 which is the full Chang article. 16 If you'd be kind enough to turn to 22 Page 404 in that article, I believe you'll see 23 which is the full Chang article. 24 which is the full Chang article. 25 Which is the full Chang article. 26 Which is the full Chang article. 27 Which is the full Chang article. 28 which is the full Chang article. 29 MR. COPLE: Do you have a copy for us?  Page 404 in that article, I believe you'll see 4 that — 4 that— 4 th				· · · · · · · · · · · · · · · · · · ·
20 Q. Did you do a pooled analysis? 21 A. So I did not do a pooled analysis, 22 because, again, what I felt was important were 23 the independent were the primary studies in 24 evaluating all of the strengths and limitations 25 of those individual studies.  Page 47  Page 47  Page 49  Page 49  Page 49  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope. While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study? MR. COPLE: Objection to the form of the question. A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER: And not just the published Agricultural Health Study, but the unpublished one; right? A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that  sure where it came from, so we marked 23-4, which is the full Chang article. If you'd be kind enough to turn to Page 404 in that article, I believe you'll see that Which is the full Chang article. If you'd be kind enough to turn to Page 404 in that article, I believe you'll see that MR. COPLE: Obyou have a copy for us?  MR. COPLE: Obyou have a copy for us?  MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Detzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematonpoietic cancers, was marked for identification.)  MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Detzell article, I believe you'll see that  Exposure and risk of lymphohematonpoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER: Q. Yes, ma'am.  A. Yes. Q.			1	
21 A. So I did not do a pooled analysis, 22 because, again, what I felt was important were 23 the independent were the primary studies in 24 evaluating all of the strengths and limitations 25 of those individual studies.  Page 47  1 Q. I'm going to find that page so we can 2 tie them up, and then we'll sort of move on 3 here, I hope.  While we're waiting for that, fair to 5 say you put the most emphasis in your expert 6 review on the Agricultural Health Study? 7 MR. COPLE: Objection to the form of 8 the question. 9 A. I felt that the Agricultural Health 10 Study offered the strongest level of evidence 11 fy ou'd be kind enough to turn to 22 that 25 MR. COPLE: Do you have a copy for us?  Page 49  MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 25 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 26 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 27 MR. COPLE: Objection of 28 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 28 MR. COPLE: Objection of 29 (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 29 MR. COPLE: Objection of 4 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 29 MR. COPLE: Objection of 4 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 20 In MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 20 In MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 21 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, I believe you'll see that 21 MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, C				
because, again, what I felt was important were the independent — were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Page 47  Page 47  Q. I'm going to find that page so we can the them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health for a variety of reasons that I outline in my report.  BY MR. MILLER:  And not just the published Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft over the draft manuscript staty opinion, I did think it provided confirmatory evidence and addressed some of the issues that  Page 404 in that article, I believe you'll see that  Page 405 maye deld in that article, I believe you'll see that  MR. COPLE: Do you have a copy for us?  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?	20		1	
the independent were the primary studies in evaluating all of the strengths and limitations of those individual studies.  Page 47  Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study?  Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  And not just the published Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft opinion, I did think it provided confirmatory evidence and addressed some of the issues that that reference in the review of the issues that that revaluations and initiations of that  Page 404 in that article, I believe you'll see that  MR. COPLE: Do you have a copy for us?  MR. MILLER: und MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4. Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohametopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot. Q. So where we have a long vertical line down the middle, it has 1.0; right?	21			
24 evaluating all of the strengths and limitations of those individual studies.  Page 47  Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health sudy?  Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  By MR. MILLER:  Q. Yes, ma'am.  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that I was a limitations of the question.  Page 47  MR. COPLE: Do you have a copy for us?  MR. MILLER: Sure (handing).  MR. HOLLINGSWORTH: Does the witness have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?		· · · · · · · · · · · · · · · · · · ·		
Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health study for a variety of reasons that I outline in my report.  By MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one.  By MR. MILLER:  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft popinion, I did think it provided confirmatory evidence and addressed some of the issues that  Page 49  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one.  BY MR. MILLER:  Page 49  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one.  BY MR. MILLER:  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?				•
Page 47  Q. I'm going to find that page so we can tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health for a variety of reasons that I outline in my report.  BY MR. MILLER:  Page 49  MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that to manuscripts?  A. Mm-hmm.  Q. 10 means no effect; right?				
1 Q. I'm going to find that page so we can 2 tie them up, and then we'll sort of move on 3 here, I hope. 3 and Delzell article, Systematic review 4 While we're waiting for that, fair to 5 say you put the most emphasis in your expert 6 review on the Agricultural Health Study? 7 MR. COPLE: Objection to the form of 8 the question. 8 MR. HOLLINGSWORTH: Does the witness 9 A. I felt that the Agricultural Health 10 Study offered the strongest level of evidence 11 for a variety of reasons that I outline in my 12 report. 13 BY MR. MILLER: 14 Q. Yes, ma'am. 15 And not just the published 16 Agricultural Health Study, but the unpublished 17 one; right? 18 A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I 20 had the opportunity to see the draft manuscripts 21 that you're referring to. So while that draft 22 manuscript didn't change my—alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that	25	of those individual studies.	25	MR. COPLE: Do you have a copy for us?
tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft approximate of the strongest point on the form of the question.  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there. So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that  24 (D. I.0 means no effect; right?)		Page 47		Page 49
tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft approximate of the strongest point on the form of the question.  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there. So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that  24 (D. I.0 means no effect; right?)				5
here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  And not just the published Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts opinion, I did think it provided confirmatory evidence and addressed some of the issues that  and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER: Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there. So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot. Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	1	Q. I'm going to find that page so we can	1	
say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published Agricultural Health Study, but the unpublished rone; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I that you're referring to. So while that draft opinion, I did think it provided confirmatory evidence and addressed some of the issues that  Exposure and risk of lymphohematopoietic cancers, was marked for identification.) MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER: Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there. So can we agree now that 23-3 is a blow-up of what is found at Page 404? A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right? A. Yes, it is a forest plot. Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm. Q. 1.0 means no effect; right?				MR. MILLER: Sure (handing).
fereview on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  MR. HOLLINGSWORTH: Does the witness  MR. HOLLINGSWORTH: Does the	2	tie them up, and then we'll sort of move on	2	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang
MR. COPLE: Objection to the form of the question.  MR. HOLLINGSWORTH: Does the witness MR. HOLLINGSWORTH: Does the witness MR. HOLLINGSWORTH: Does the witness have one?  In the question.  A. I felt that the Agricultural Health  Study offered the strongest level of evidence  In the witness Have one.  In the WITNESS: I don't have one.  BY MR. MILLER:  In the WITNESS: I don't have one.	2	tie them up, and then we'll sort of move on here, I hope.	2 3	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review
MR. COPLE: Objection to the form of the question.  MR. HOLLINGSWORTH: Does the witness MR. HOLLINGSWORTH: Does the witness MR. HOLLINGSWORTH: Does the witness have one?  In the question.  A. I felt that the Agricultural Health  Study offered the strongest level of evidence  In the witness one in the question.  It is study offered the strongest level of evidence  In the witness one.  In the Witness: I don't have one.  BY MR. MILLER:  In the witness one.  In the Witness: I don't have one.  In the Witnes	2 3 4	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to	2 3 4	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate
9 A. I felt that the Agricultural Health 10 Study offered the strongest level of evidence 11 for a variety of reasons that I outline in my 12 report. 13 BY MR. MILLER: 14 Q. Yes, ma'am. 15 And not just the published 16 Agricultural Health Study, but the unpublished 17 one; right? 18 A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I 20 Pokay. And what that is is a forest 21 plot, we can agree; right? 22 manuscript didn't change my alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that  10 THE WITNESS: I don't have one. 10 THE WITNESS: I don't have one. 11 BY MR. MILLER: 12 Q. I apologize. I kept the original. My 13 fault. I'll even turn it over to the right 14 page, but it's on Page 404 there. 15 So can we agree now that 23-3 is a 16 blow-up of what is found at Page 404? 17 A. Yes. 18 Q. Okay. And what that is is a forest 19 plot, we can agree; right? 20 A. Yes, it is a forest plot. 21 Q. So where we have a long vertical line 22 down the middle, it has 1.0; right? 23 Opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that 25 A. Mm-hmm. 26 Landing My 27 A. Yes, it is a forest plot. 28 A. Mm-hmm. 29 Opinion, I did think it provided confirmatory 29 Opinion, I did think it provided confirmatory 20 Opinion, I did think it provided confirmatory 20 Opinion, I did think it provided confirmatory 21 Opinion, I did think it provided confirmatory 22 Opinion, I did think it provided confirmatory 23 Opinion, I did think it provided confirmatory 24 Opinion opi	2 3 4 5	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert	2 3 4 5	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of
Study offered the strongest level of evidence  1 for a variety of reasons that I outline in my  1 page, but it's on Page 404 there.  1 And not just the published  1 page, but it's on Page 404 there.  1 page, but it's on Page 404?  2 page, but it's on Page 404 there.  2 page, but it's on Page 404 there.  3 page, but it's on Page 404 there.  4 page, but it's on Page 404 there.  5 page, but it's on Page 404 there.  5 page, but it's on Page 404 there.  6 page, but it's on Page 404 there.  7 page, but it's on Page 404 there.  8 page, but it's on Page 404 there.  9 page, but it's on Page 404?  1 page, but it's on Page 404?	2 3 4 5 6	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?	2 3 4 5 6	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)
for a variety of reasons that I outline in my report.  BY MR. MILLER: Q. I apologize. I kept the original. My fault. I'll even turn it over to the right Q. Yes, ma'am. And not just the published Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft copinion, I did think it provided confirmatory evidence and addressed some of the issues that  BY MR. MILLER: Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there. So can we agree now that 23-3 is a blow-up of what is found at Page 404? A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right? A. Yes, it is a forest plot. Q. So where we have a long vertical line down the middle, it has 1.0; right? A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of	2 3 4 5 6 7	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)
report.  12 Q. I apologize. I kept the original. My  13 BY MR. MILLER:  14 Q. Yes, ma'am.  15 And not just the published  16 Agricultural Health Study, but the unpublished  17 one; right?  18 A. Well, I had come to my opinion  19 regarding the epidemiologic literature before I  20 had the opportunity to see the draft manuscripts  21 that you're referring to. So while that draft  22 manuscript didn't change my alter my expert  23 opinion, I did think it provided confirmatory  24 evidence and addressed some of the issues that  12 Q. I apologize. I kept the original. My  13 fault. I'll even turn it over to the right  14 page, but it's on Page 404 there.  15 So can we agree now that 23-3 is a  16 blow-up of what is found at Page 404?  17 A. Yes.  Q. Okay. And what that is is a forest  19 plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line  down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7 8	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.	2 3 4 5 6 7 8	MR. MILLER: Sure (handing). (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.) MR. HOLLINGSWORTH: Does the witness
BY MR. MILLER:  13 fault. I'll even turn it over to the right  Q. Yes, ma'am.  14 page, but it's on Page 404 there.  15 So can we agree now that 23-3 is a  16 Agricultural Health Study, but the unpublished  16 one; right?  17 A. Yes.  18 A. Well, I had come to my opinion  19 regarding the epidemiologic literature before I  20 had the opportunity to see the draft manuscripts  21 that you're referring to. So while that draft  22 manuscript didn't change my alter my expert  23 opinion, I did think it provided confirmatory  24 evidence and addressed some of the issues that  13 fault. I'll even turn it over to the right  page, but it's on Page 404 there.  So can we agree now that 23-3 is a  blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7 8	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence	2 3 4 5 6 7 8 9	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?
14 Q. Yes, ma'am.  15 And not just the published 16 Agricultural Health Study, but the unpublished 17 one; right? 18 A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I 20 had the opportunity to see the draft manuscripts 21 that you're referring to. So while that draft 22 manuscript didn't change my alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that  14 page, but it's on Page 404 there.  15 So can we agree now that 23-3 is a  16 blow-up of what is found at Page 404?  17 A. Yes.  18 Q. Okay. And what that is is a forest plot, we can agree; right?  20 A. Yes, it is a forest plot.  21 Q. So where we have a long vertical line down the middle, it has 1.0; right?  22 A. Mm-hmm.  23 A. Mm-hmm.  24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence	2 3 4 5 6 7 8 9 10	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:
And not just the published  Agricultural Health Study, but the unpublished  16 Agricultural Health Study, but the unpublished  17 one; right?  18 A. Well, I had come to my opinion  19 regarding the epidemiologic literature before I  20 had the opportunity to see the draft manuscripts  21 that you're referring to. So while that draft  22 manuscript didn't change my alter my expert  23 opinion, I did think it provided confirmatory  24 evidence and addressed some of the issues that  15 So can we agree now that 23-3 is a  16 blow-up of what is found at Page 404?  17 A. Yes.  18 Q. Okay. And what that is is a forest  19 plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line  down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.	2 3 4 5 6 7 8 9 10 11	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My
Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I 20 had the opportunity to see the draft manuscripts 21 that you're referring to. So while that draft 22 manuscript didn't change my alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that  16 blow-up of what is found at Page 404?  A. Yes.  19 plot, we can agree; right?  20 A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right
one; right?  17 A. Yes.  18 A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I 20 had the opportunity to see the draft manuscripts 21 that you're referring to. So while that draft 22 manuscript didn't change my alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that  17 A. Yes. 18 Q. Okay. And what that is is a forest 19 plot, we can agree; right? 20 A. Yes, it is a forest plot. 21 Q. So where we have a long vertical line 22 down the middle, it has 1.0; right? 23 A. Mm-hmm. 24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.	2 3 4 5 6 7 8 9 10 11 12 13 14	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.
A. Well, I had come to my opinion 19 regarding the epidemiologic literature before I 20 had the opportunity to see the draft manuscripts 21 that you're referring to. So while that draft 22 manuscript didn't change my alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that  18 Q. Okay. And what that is is a forest 19 plot, we can agree; right?  20 A. Yes, it is a forest plot. 21 Q. So where we have a long vertical line 22 down the middle, it has 1.0; right? 23 A. Mm-hmm. 24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published	2 3 4 5 6 7 8 9 10 11 12 13 14	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a
regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that  19 plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published Agricultural Health Study, but the unpublished	2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?
had the opportunity to see the draft manuscripts  that you're referring to. So while that draft  manuscript didn't change my alter my expert  opinion, I did think it provided confirmatory  evidence and addressed some of the issues that  20  A. Yes, it is a forest plot.  Q. So where we have a long vertical line  down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published Agricultural Health Study, but the unpublished one; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.
that you're referring to. So while that draft 21 Q. So where we have a long vertical line 22 manuscript didn't change my alter my expert 23 opinion, I did think it provided confirmatory 24 evidence and addressed some of the issues that 21 Q. So where we have a long vertical line 22 down the middle, it has 1.0; right? 23 A. Mm-hmm. 24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest
22 manuscript didn't change my alter my expert 22 down the middle, it has 1.0; right? 23 opinion, I did think it provided confirmatory 23 A. Mm-hmm. 24 evidence and addressed some of the issues that 24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?
23 opinion, I did think it provided confirmatory 23 A. Mm-hmm. 24 evidence and addressed some of the issues that 24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.
24 evidence and addressed some of the issues that 24 Q. 1.0 means no effect; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?
45   Were in the published 2005 version.   45   A. That is correct. When you're dealing	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm.
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	tie them up, and then we'll sort of move on here, I hope.  While we're waiting for that, fair to say you put the most emphasis in your expert review on the Agricultural Health Study?  MR. COPLE: Objection to the form of the question.  A. I felt that the Agricultural Health Study offered the strongest level of evidence for a variety of reasons that I outline in my report.  BY MR. MILLER:  Q. Yes, ma'am.  And not just the published  Agricultural Health Study, but the unpublished one; right?  A. Well, I had come to my opinion regarding the epidemiologic literature before I had the opportunity to see the draft manuscripts that you're referring to. So while that draft manuscript didn't change my alter my expert opinion, I did think it provided confirmatory evidence and addressed some of the issues that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MR. MILLER: Sure (handing).  (Whereupon, Rider Exhibit 23-4, Chang and Delzell article, Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers, was marked for identification.)  MR. HOLLINGSWORTH: Does the witness have one?  THE WITNESS: I don't have one.  BY MR. MILLER:  Q. I apologize. I kept the original. My fault. I'll even turn it over to the right page, but it's on Page 404 there.  So can we agree now that 23-3 is a blow-up of what is found at Page 404?  A. Yes.  Q. Okay. And what that is is a forest plot, we can agree; right?  A. Yes, it is a forest plot.  Q. So where we have a long vertical line down the middle, it has 1.0; right?  A. Mm-hmm.  Q. 1.0 means no effect; right?

with relative risk measures, that would be no association.  Q. And so everything to the left of 1.0 in that vertical line would be a study that indicated a protective effect; right?  A. So relative risks of less. I indicate that the exposure that the outcome is less common among those who are exposed.  Q. Yes, ma am.  And a result to the right of 1.0 means it's more common in those that are exposed; right?  A. That is correct.  And so in this forest plot, it talks about the De Roos 2003 study. You read that one common in the De Roos 2005 study which, I believe, is the AHS study; right?  A. That is correct.  And mm-hmm.  Page 51  Q. And you read the Hardell study 2008? A. I did.  Q. And you read the Hardell study 2008? A. I did.  Page 51  Q. And who whether it's son study 2008? A. I did.  Q. And who whether problems with combining studies that lack internal validity.  Page 51  Q. And who read the Priksson study 2008? A. I did.  Page 51  Q. And who read the Hardell study 2002? A. Mm-hmm.  Q. And the McDuffic, right? A. A min-hmm.  Q. And the McDuffic, right? A. A min-hmm. A. A correct. Q. And who read the Priksson study 2008? A. That is correct.  Q. And the meta-analysis RR, that's from a Dr. Chang's study here that we're looking at; right?  A. That is correct.  Q. And the meta-analysis that an exposence of the control of the company.  Page 51  A. That is correct.  Q. And the meta-analysis is that an exposence of the control of the company.  Page 52  A. A min-hmm.  A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal validity.  Q. G. Fi it's a bad study, then you can't rely on it?  A. And you understand that Dr. Chang, and this is Exhibit 23-4, she found an increased		Page 50		Page 52
4 in that vertical line would be a study that indicated a protective effect; right?  6 A. So relative risks of less. I indicate that the exposure – that the outcome is less common among those who are exposed.  9 Q. Yes, ma'am.  And a result to the right of 1.0 means it's more common in those that are exposed; right?  13 A. That is correct.  14 Q. Sure.  And so in this forest plot, it talks about the De Roos 2003 study. You read that one or right, ma'am?  18 A. I did.  9 Q. And the De Roos 2005 study which, I believe, is the AHS study; right?  21 A. That is correct.  22 Q. And you read that?  23 A. Mm-hmm.  24 Q. And you read the Eriksson study 2008?  25 A. I did.  Page 51  1 Q. And you read the Eriksson study 2008?  A. Mm-hmm.  9 Q. And when the McDuffic, right?  1 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; right?  1 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; right?  1 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; right?  1 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; right?  1 Q. And the meta-analysis RR, that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  2 Q. And wou understand that Dr. Chang, and	1	with relative risk measures, that would be no	1	risk of 30 percent between glyphosate Roundup
4 in that vertical line would be a study that 5 indicated a protective effect; right? 6 A. So relative risks of less. I indicate 7 that the exposure that the outcome is less 8 common among those who are exposed. 9 Q. Yes, ma'am. 10 And a result to the right of 1.0 means 11 it's more common in those that are exposed; 12 right? 13 A. That is correct. 14 Q. Sure. 15 And so in this forest plot, it talks 16 about the De Roos 2003 study. You read that 17 one, right, ma'am? 18 A. I did. 19 Q. And the De Roos 2005 study which, I 10 believe, is the AHS study; right? 21 A. That is correct. 22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eiriksson study 2008? 25 A. I did. 26 And whether it's valid or whether you should rely on it on the right? 27 A. Mm-hmm. 28 Q. And you read the Hardell study 2008? 29 A. Mm-hmm. 20 Q. And down the Hardell study 2002? 20 And whether it's valid or whether you should rely on it on the right? 20 And down the Hardell study 2002? 21 A. Mm-hmm. 22 Q. And you read the Hardell study 2002? 23 A. Mm-hmm. 3 Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? 3 A. That is correct. 4 Q. And down read the tare exposed; 12 pipel. 5 Q. And down read the tare exposed; 13 pipel. 6 A. Correct. 7 Q. And alte meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? 10 A. That is correct. 11 Q. And alte meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? 12 side of 1; right? 13 A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. 19 Q. If it's a bad study, then you can't rely on it? 20 Q. Unif's a bad study, then you can't rely on it? 21 rely on it? 22 A. Exactly. 23 A. Mny our derestand that Dr. Chang, and	2	association.	2	
5 indicated a protective effect, right? 6 A. So relative risks of less .1 indicate 7 that the exposure that the outcome is less 8 common among those who are exposed. 9 Q. Yes, ma'm. 10 And a result to the right of 1.0 means 11 it's more common in those that are exposed; 12 right? 13 A. That is correct. 14 Q. Sure. 15 And so in this forest plot, it talks 16 about the De Roos 2003 study. You read that 17 one, right, ma'am? 18 A. I did. 19 Q. And the De Roos 2005 study which, 1 19 believe, is the AHS study; right? 21 A. That is correct. 22 Q. And you read the Eriksson study 2008? 23 A. Mm-hmm. 24 Q. And you read the Hardell study 2002? 24 A. Mm-hmm. 25 Q. And Own read the Hardell study 2002? 25 A. I did. 26 A. Mm-hmm. 27 Q. And the McDuffie, right? 28 Dr. Chang's study here that we're looking at; right? 29 right? 20 A. That is correct. 21 Q. And bunderstand that that's your opinion. But she that's what she found. 25 MR. COPLE: Objection. Asked and answered. 26 A. That is correct. 27 A. That is correct. 28 A. I did. 29 A. And you read the Eriksson study 2008? 20 A. And whenham. 21 Q. And you read the Hardell study 2002? 22 A. Mm-hmm. 23 Q. And the McDuffie, right? 24 Q. And whenham. 25 Q. And Orsi? 26 A. Correct. 27 Q. And the McDuffie, right? 28 Dr. Chang's study here that we're looking at; right? 29 G. And of them come in on the right is ide of 1: right? 20 Q. And if them come in on the right is wind the moment of the results of the meta-analysis is read to a meta-analysis. 27 MR. COPLE: Objection. Vague. 28 MR. COPLE: Objection. Vague. 29 MR. COPLE: Objection. Vague. 29 MR. COPLE: Objection. Vague. 20 MR. COPLE: Objection. Vague. 20 MR. COPLE: Objection. Vague. 21 BY MR. MILLER: 22 Q. And it is mportant to evaluate these studies individually, and not just to look at the results of the meta-analysis is that an association above I means absolutely nothing if you haven't evaluated that study's internal association above I means absolutely nothing if you haven't evaluated that study's internal association abov	3		3	MR. COPLE: Objection. Lacks
6 A. So relative risks of less. I indicate that the exposure that the outcome is less 8 common among those who are exposed. 9 Q. Yes, ma'am. 10 And a result to the right of 1.0 means 11 it's more common in those that are exposed; right? 12 right? 13 A. That is correct. 14 Q. Sure. 15 And so in this forest plot, it talks 16 about the De Roos 2003 study. You read that 17 one, right, ma'am? 18 A. I did. 19 Q. And the De Roos 2005 study which, I 20 believe, is the AHS study; right? 20 believe, is the AHS study; right? 21 A. That is correct. 22 Q. And you read that Eriksson study 2008? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did. 26 A. Correct. 27 Q. And you read the Hardell study 2002? 28 A. Mm-hmm. 29 Q. And the McDuffie, right? 20 And Orsi? 30 Q. And the McDuffie, right? 41 A. Mm-hmm. 52 Q. And of sight? 42 A. Mm-hmm. 53 Q. And the McDuffie, right? 44 A. Mm-hmm. 55 Q. And of sight? 56 A. Correct. 77 Q. And dall of them come in on the right 2 side of 1; right? 10 A. That is correct. 11 Q. And all of them come in on the right 2 side of 1; right? 12 is de of 1; right? 13 A. That is correct. 14 Q. Miller and the Eriksson study 2008? 26 A. Correct. 27 Q. And of the means and solve I means also-lutely nothing if you haven't evaluated thas tandly's internal 2 validity, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal 2 validity, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal 2 validity, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal 2 validity, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal 2 validity, and not just to look at the results of the m	4	in that vertical line would be a study that	4	foundation.
me, that result has very little meaning because you need to take into account the quality of the individual studies that are included in that meta-analysis.  The state of the study of the individual studies that are included in that meta-analysis.  The state of the study of the individual studies that are included in that meta-analysis.  The state of the	5		5	
se common among those who are exposed. 9 Q. Yes, ma'am. And a result to the right of 1.0 means it's more common in those that are exposed; right? 12 right? 13 A. That is correct. 14 Q. Sure. 15 And so in this forest plot, it talks about the De Roos 2003 study. You read that one, right, ma'am? 16 A. I did. 17 one, right, ma'am? 18 A. I did. 19 Q. And the De Roos 2005 study which, I believe, is the AHS study; right? 21 A. That is correct. 22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did.  Page 51  1 Q. And you read the Hardell study 2002? 2 A. Mm-hmm. 2 Q. And the McDuffie, right? 3 Q. And the McDuffie, right? 4 A. Mm-hmm. 5 Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? 9 Tight? 10 A. That is correct. 11 Q. And all of them come in on the right it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if validity. 20 Q. If it's a bad study, then you can't rely on it? 21 rely on it? 22 A. And you understand that that's your opinion. But she are included in that meta-analysis. 3 Dr. Chang's study here that we're looking at; right? 4 A. Amh-hmm. 4 D. And all of them come in on the right it was important to evaluate these studies in individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if yalidity. 20 Q. If it's a bad study, then you can't rely on it? 21 Rely on it? 22 A. Exactly. 23 A. And you nuderstand that that syour opinion. But sted in that meta-analysis is of the meta-analysis is dia an association above I means absolutely nothing if yalidity. 21 Rely on it? 22 A. Exactly. 23 A. I did. 24 And you nuderstand that Dr. Chang, and opinion. But sted in that meta-analysis is dia first it or not we can debate, but she did find a 30 percent increased risk; right? 22 A. Exactly. 23 B. Y. MR. MILLER: 24 And you nuderstand that but study's intern	6		6	
9 Q. Yes, ma'am. 10 And a result to the right of 1.0 means 11 it's more common in those that are exposed; 12 right? 13 A. That is correct. 14 Q. Sure. 15 And so in this forest plot, it talks 16 about the De Roos 2003 study. You read that 17 one, right, ma'am? 18 A. I did. 19 Q. And the De Roos 2005 study which, I 19 believe, is the AHS study; right? 21 A. That is correct. 22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did. 26 And you read the Eriksson study 2008? 27 A. Mm-hmm. 28 Q. And the McDuffie, right? 29 A. Mm-hmm. 20 And the McDuffie, right? 21 Q. And do you know who Exponent is? 22 Q. And Ovoir ead the Hardell study 2002? 23 A. Mm-hmm. 24 Q. And who we can debate, but she did find a answered. 27 A. I did. 28 BY MR. MILLER: 29 A. I did. 20 And you read that? 21 A. That is correct. 21 Q. And you read the Eriksson study 2008? 22 A. Mm-hmm. 3 Q. And the McDuffie, right? 4 A. Mm-hmm. 4 A. Mm-hmm. 5 Q. And the meta-analysis RR, that's from B. Dr. Chang's study here that we're looking at; right? 4 A. That is correct. 5 Q. And all of them come in on the right is side of 1; right? 5 Q. And all of them come in on the right is wide of 1; right? 4 A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal pounderstand that Dr. Chang, and the proposed; 24 A. Exactly. 25 A. I think the purpose of the disclosure statement as well; right? 26 A. Exactly. 27 A. Exactly. 28 And you understand that Dr. Chang, and the proposed; 29 A. I think the purpose of the disclosure statement is so that any sort of percived conflicts can be evaluated by people who read co	7		7	
And a result to the right of 1.0 means it's more common in those that are exposed; right?  A. That is correct.  A. That is correct.  And so in this forest plot, it talks about the De Roos 2003 study. You read that one, right, ma'am?  A. I did.  A. I did.  Page 51  Q. And Jou read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. Q. And the McDuffie, right? A. A. Mm-hmm. Q. And the McDuffie, right? A. A. Mm-hmm. A. A	8	common among those who are exposed.	8	you need to take into account the quality of the
11 it's more common in those that are exposed; 12 right? 13 A. That is correct. 14 Q. Sure. 15 And so in this forest plot, it talks 16 about the De Roos 2003 study. You read that 17 one, right, ma'am? 18 A. I did. 19 Q. And the De Roos 2005 study which, I 19 believe, is the AHS study; right? 20 L. A. That is correct. 21 A. That is correct. 22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did. 26 A. Mm-hmm. 27 A. Mm-hmm. 28 Q. And the McDuffie, right? 29 A. Mm-hmm. 20 And the McDuffie, right? 20 And Orsi? 21 A. Mm-hmm. 22 A. Mm-hmm. 23 Q. And the McDuffie, right? 24 A. Mm-hmm. 25 Q. And Orsi? 26 A. Correct. 27 Q. And Orsi? 28 A. That is correct. 29 Q. And all of them come in on the right is idio fil; right? 30 percent increased risk; right? 31 MR. COPLE: Objection. Asked and answered. 31 A. That is correct. 31 A. Min-hmm. 42 Sample of the meta-analysis Ref. that's from B. Dr. Chang's study here that we're looking at; right? 31 A. Again, so the reason why I felt that it was important to evaluate these studies in dividually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal validity. 31 A. Exactly. 32 A. My understand that that's your opinion. But she — that's what she found. 32 Whether it's valid or whether you should frely on it or not we can debate, but she did find a 30 percent increased risk; right?  MR. COPLE: Objection. Asked and answered. A. She found a meta-analysis relative risk of 1.3. But, again, there are problems walidity.  BYMR. MILLER: Q. Do you know whote Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BYMR. MILLER: Q. If it's a bad study, then you can't rely on it?  A. Correct. Q. Do you see the Acknowledgments section there, ma'am? A. I do. Q. Do you see the Acknowledgments section there, ma'am? A. I do. Q. Do you see the Acknowledgments section there, ma'am? A. I	9		9	individual studies that are included in that
right?  A. That is correct.  And so in this forest plot, it talks about the De Roos 2003 study. You read that or, right, maan?  B. A. I did.  Q. And the De Roos 2005 study which, I believe, is the AHS study; right?  A. That is correct.  Q. And you read that?  A. Mm-hmm.  A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2008? A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Beriksson study 2008? A. I did.  Page 51  Q. And you read the Beriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm.  Q. And do you know who Exponent is? A. I have become familiar with who  Page 51  Q. And do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Asked and answered.  A. She found a meta-analysis relative risk of I.3. But, again, there are problems with combining studies that lack internal validity.  A. I have become familiar with who  Page 51  Page 53  Exponent is. I know that Dr. Chang works for Exponent.  Q. And do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  By MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  By MR. MILLER:  Q. If it's a bad study, then you can't rely on it?  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement as well; right?  MR. COPLE: Objection opining it op pople who read conflicts can be evaluated by people who read conflicts can be evaluated by people who read		<del>-</del>	10	•
A. That is correct.  And so in this forest plot, it talks about the De Roos 2003 study. You read that one, right, ma'am?  A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm.  Q. And you read the Hardell study 2002? A. Mm-hmm.  Q. And when the Hardell study 2002? A. Mm-hmm.  Q. And the McDuffie, right? A. Mm-hmm.  Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right?  A. That is correct.  Q. And the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal validity.  Q. If it's a bad study, then you can't rely on it?  A. And you understand that Dr. Chang, and  A. And you understand that Dr. Chang, and  A. And you read the Eriksson study 2008?  A. I did.  Delieve, is the AHS study, right?  MR. COPLE: Objection. Asked and answered.  A. She found a meta-analysis relative risk of 1.3. But, again, there are problems with combining studies that lack internal validity.  A. I hat a lock in the reason study 2008?  A. I have become familiar with who  Page 51  Exponent is. I know that Dr. Chang works for Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  A. I have become familiar with who  Page 424.  A. Orrect.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  Page 53  Exponent is. I know that Dr. Chang works for Exponent is?  A. I really know nothing about the mission of the company.  MR. COPLE: Objection. Vague.  A. I have become familiar with who  Page 444.  A. Okay.  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. Do you see the Acknowledgments of there, ma'am?  MR. COPLE: Objection. Vague.  A. I do.  Q. Do you see the Acknowledgments of there, ma'am?  MR. COPLE: Objection. Vagu		·		
And so in this forest plot, it talks about the De Roos 2003 study. You read that an one, right, ma'am?  A. I did.  Q. And the De Roos 2005 study which, I abelieve, is the AHS study; right?  A. That is correct.  Q. And you read that?  A. I did.  Page 51  Q. And you read the Eriksson study 2008?  A. I did.  Page 51  Q. And you read the Hardell study 2002?  A. Mm-hmm.  Q. And you read the Hardell study 2002?  A. Mm-hmm.  Q. And he McDuffie, right?  A. Mm-hmm.  Q. And Orsi?  A. Correct.  Q. And Orsi?  A. Correct.  Q. And the meta-analysis RR, that's from B. Dr. Chang's study here that we're looking at; right?  A. That is correct.  Q. And all of them come in on the right side of I; right?  A. A gain, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if validity.  Q. If it's a bad study, then you can't rely on it?  A. Dyou understand that Dr. Chang, and the statement as well; right?  A. Exactly.  A. Sure.  Whether it's valid or whether you should rely on it or not we can debate, but she did find a 30 percent in to we can debate, but she did find a 30 percent in tree are not we can debate, but she did find a 30 percent in the right?  MR. COPLE: Objection. Asked and answered.  A. She found a meta-analysis relative risk of I.3. But, again, there are problems with combining studies that lack internal validity.  BY MR. MILLER:  Q. And do you know who Exponent is?  A. I have become familiar with who  Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And dris' important for authors of peer-reviewed journasts to have a disclosure statement as well; right?  MR. COPLE: Objecti		<u> </u>		- · · · · · · · · · · · · · · · · · · ·
And so in this forest plot, it talks about the De Roos 2003 study. You read that rone, right, ma'am? A. I did. A. I did. Believe, is the AHS study; right? A. That is correct. A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. A. Mm-hmm. A. Mm-hmm. A. Morbinm. B. Dr. Chang's study here that we're looking at; right? A. That is correct. A. That is correct. A. Morbinm. B. Dr. Chang's study here that we're looking at; right? A. That is correct. A. That is correct. A. Morbinm. B. Dr. Chang's study here that we're looking at; right? A. That is correct. C. Q. And do'si? A. That is correct. C. Q. And do'si? A. That is correct. C. Q. Morbing studies that lack internal with combining studies that lack internal with who  Page 51  Page 53  Page 53  Page 53  Page 53  Page 54  A. I have become familiar with who  Page 53  Page 54  A. I have become familiar with who  Page 53  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 54  Page 54  A. I have become familiar with who  Page 55  Page 55  Page 55  A. I have become familiar with who  Page 54  Page 55  Page 55  Page 55  Page 55  Page 55  Page 56  Page 57  Page 57  Page 58  Page 59  Page 59  Page 59  Page 59  Page 59  Page 59  Page 50  Page 51  Page				
about the De Roos 2003 study. You read that one, right, malam?  R. A. I did.  A. I did.  9 Q. And the De Roos 2005 study which, I 19 believe, is the AHS study; right?  20 believe, is the AHS study; right?  21 A. That is correct.  22 Q. And you read that?  23 A. Mm-hmm.  24 Q. And you read the Eriksson study 2008?  25 A. I did.  Page 51  Page 51  Q. And you read the Hardell study 2002?  A. I did.  Page 51  Q. And you read the Hardell study 2002?  A. Mm-hmm.  Page 53  Exponent is. I know that Dr. Chang works for Exponent does studies for corporations?  A. Correct.  Q. And Orsi?  A. Correct.  Q. And do whet meta-analysis RR, that's from Br. Chang's study here that we're looking at; right?  A. That is correct.  A. That is correct.  A. That is correct.  D. And all of them come in on the right it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal rely a validity.  A. Exactly.  A. I think the purpose of the disclosure statement is so that any sort of percreviewed ournals to have a disclosure statement as well, right?  A. I thought answered.  A. She found a meta-analysis relative risk of I.3. But, again, there are problems with combining studies that lack internal validity.  A. That is correct.  D. And do you know who Exponent is?  A. I have become familiar with who Exponent does studies for corporations?  B. Exponent is. I know that Dr. Chang works for Exponent.  B. W. MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  B. W. MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of percreived journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I do.  A		•		
ne, right, ma'am?  A. I did.  Q. And the De Roos 2005 study which, I  Believe, is the AHS study; right?  A. That is correct.  Q. And you read that?  A. I did.  Page 51  Q. And you read the Eriksson study 2008?  A. I did.  Page 51  Q. And you read the Hardell study 2002?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  Deare 51  Q. And oyou know who Exponent is?  A. I have become familiar with who  Page 51  Page 53  Page 53  Page 53  Page 53  Page 54  A. I have become familiar with who  Page 51  Page 53  Page 53  Page 53  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 55  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 55  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 55  Page 53  Page 53  Page 53  Page 53  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 55  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 53  Page 53  Page 53  Page 53  Page 54  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 53  Page 53  Page 53  Page 53  Page 53  A. I have become familiar with who  Page 53  Page 53  A. I have become familiar with who  Page 53  Page 53  A. I have become familiar with who  Page 53  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 54  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 54  A				•
18 A. I did. 19 Q. And the De Roos 2005 study which, I 20 believe, is the AHS study; right? 21 A. That is correct. 22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did.  26 Page 51  1 Q. And you read the Hardell study 2002? 27 A. Mm-hmm. 28 Q. And you read the Hardell study 2002? 29 And the McDuffie, right? 20 And orsi? 21 Exponent is. I know that Dr. Chang works for Exponent does studies for corporations? 29 And the meta-analysis RR, that's from B. Dr. Chang's study here that we're looking at; right? 20 And all of them come in on the right it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if validity. 20 Q. If it's a bad study, then you can't rely on it? 21 And you understand that Dr. Chang, and A. She found a meta-analysis relative risk the combining studies that lack internal validity. 21 A. Mm-hmm. 22 Validity. 22 Validity. 23 BY MR. MILLER: 24 Q. And do you know who Exponent is? 25 A. I have become familiar with who  25 Exponent. 26 Exponent. 27 Q. Do you know whether Exponent does studies for corporations? 28 MR. COPLE: Objection. Vague. 29 A. I really know nothing about the mission of the company. 29 A. I really know nothing about the mission of the company. 20 Do you see the Acknowledgments section there, ma'n? 21 Rely on it? 22 A. Exactly. 23 Q. Sure. 24 And you understand that Dr. Chang, and 25 A. I hank the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read		· · · · · · · · · · · · · · · · · · ·		-
Delieve, is the AHS study; right?  A. That is correct.  Q. And you read that?  A. I did.  Page 51  Q. And you read the Eriksson study 2008?  A. I did.  Page 51  Q. And you read the Hardell study 2002?  A. Mm-hmm.  Q. And you read the Hardell study 2002?  A. Mm-hmm.  Q. And who we at the Hardell study 2002?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  A. Mm-hmm.  A. Correct.  Q. And Osi?  A. Correct.  Q. And the meta-analysis RR, that's from B. Dr. Chang's study here that we're looking at; right?  A. That is correct.  A. A gain, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above I means absolutely nothing if you haven't evaluated that study's internal validity.  Q. If it's a bad study, then you can't rely on it?  A. Exactly.  Q. Sure.  A. She found a meta-analysis relative risk of 1.3. But, again, there are problems with combining studies that lack internal validity.  Tisk of 1.3. But, again, there are problems with combining studies that lack internal validity.  Day with combining studies that lack internal validity.  D. A. I falo you know who Exponent is?  Exponent is. I know that Dr. Chang works for Exponent.  B. WR. COPLE: Objection. Vague.  B. YMR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  B. WR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  D. Okay.  A. I do.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people wh		_		-
believe, is the AHS study; right?  A. That is correct.  20. And you read that?  A. Mm-hmm.  21. Q. And you read the Eriksson study 2008?  A. I did.  22. Q. And you read the Eriksson study 2008?  A. I did.  23. BY MR. MILLER:  Q. And you know who Exponent is?  A. I have become familiar with who  24. Q. And do you know who Exponent is?  A. I have become familiar with who  25. A. I have become familiar with who  26. And the McDuffie, right?  A. Mm-hmm.  Q. And the McDuffie, right?  A. Mm-hmm.  Q. And orsi?  A. Correct.  Q. And orsi?  A. Correct.  Q. And the meta-analysis RR, that's from  B. Dr. Chang's study here that we're looking at; right?  A. That is correct.  Q. And all of them come in on the right  27. Side of 1; right?  A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. I fit's a bad study, then you can't rely on it?  A. Exactly.  Q. Sure.  And you read that?  20. And do you know who Exponent is?  A. I have become familiar with who  Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement as well; right?  MR. COPLE: Objection vague.  A. I think the purpose of the disclosure statement as well any sort of perceived conflicts can be evaluated by people who read				
21 A. That is correct. 22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did.  Page 51  Page 53  1 Q. And you read the Hardell study 2002? 2 A. Mm-hmm. 2 Q. And when the Hardell study 2002? 3 Q. And the McDuffie, right? 4 A. Mm-hmm. 5 Q. And the McDuffie, right? 6 A. Correct. 7 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; 9 right? 1 Q. And all of them come in on the right 1 Q. And all of them come in on the right 1 it was important to evaluate these studies 15 rightly, and not just to look at the results of the meta-analysis, is that an results important for authors of peer-reviewed journals to have a disclosure statement as well; right?  A.				
22 Q. And you read that? 23 A. Mm-hmm. 24 Q. And you read the Eriksson study 2008? 25 A. I did.  Page 51  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. 2 Exponent is. I know that Dr. Chang works for Exponent. 3 Q. And the McDuffie, right? 4 A. Mm-hmm. 4 Studies for corporations? 4 A. Mm-hmm. 5 Q. And Orsi? 6 A. Correct. 7 Q. And the meta-analysis RR, that's from B. Dr. Chang's study here that we're looking at; right? 9 right? 10 A. That is correct. 11 Q. And all of them come in on the right side of 1; right? 12 side of 1; right? 13 A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an sosciation above I means absolutely nothing if validity. 10 Q. If it's a bad study, then you can't rely on it? 21 Q. Sure. 22 And you understand that Dr. Chang, and 23 Ry MR. MILLER: 24 Q. And doy ou know who Exponent is? 25 A. I have become familiar with who 26 Exponent. 27 Q. And doy you know whether Exponent does studies for corporations? 28 MR. COPLE: Objection. Vague. 39 MR. COPLE: Objection. Vague. 40 A. I really know nothing about the mission of the company. 41 BY MR. MILLER: 42 Q. If you could turn with me, please, to Page 424. 43 A. Okay. 44 A. Okay. 45 Q. Do you see the Acknowledgments section there, ma'am? 46 A. Ido. 47 Q. And is important for authors of peer-reviewed journals to have a disclosure statement as well; right? 48 MR. COPLE: Objection. Vague. 49 A. I think the purpose of the disclosure statement as well; right? 40 Q. Sure. 41 And you understand that Dr. Chang, and 42 Conflicts can be evaluated by people who read			1	
A. Mm-hmm.  Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. Q. And you read the Hardell study 2002? A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Br. Chang's study here that we're looking at; right? Q. And all of them come in on the right it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an sociation above I means absolutely nothing if you haven't evaluated that study's internal validity. Q. G. If it's a bad study, then you can't rely on it? A. I did.  Page 53  BY MR. MILLER: Q. And do you know who Exponent is? A. I have become familiar with who  Page 53  Exponent. Q. Do you know whether Exponent does studies for corporations? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. That's what their job is? MR. COPLE: Objection. Vague. A. I really know nothing about the mission of the company.  BY MR. MILLER: Q. If you could turn with me, please, to Page 424. A. Okay. Q. Do you see the Acknowledgments section there, ma'am? A. I do. Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague. A. I think the purpose of the disclosure statement as well; right? MR. COPLE: Objection. Vague. A. I think the purpose of the disclosure statement as well and the purpose of the disclosure statement as that any sort of perceived conflicts can be evaluated by people who read				_
Q. And you read the Eriksson study 2008? A. I did.  Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that ti was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the read of the meta-analysis, is that an conditional or the results of the meta-analysis, is that an conditional or the read of the meta-analysis in the meta-analysis in the meta-analysis in the read of the meta-analysis in the read of the meta-analysis in the read of the meta-analysis in the meta-analysis i		•		•
Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an validity. Q. If it's a bad study, then you can't rely on it? A. Exactly. Q. Sire. A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I have become familiar with who  Page 53  A. I know that Dr. Chang works for Exponent. S. Iknow that Dr. Chang works for Exponent. A. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I That's what their job is?  MR. COPLE: Objection. Vague. A. I think the purpose of the disclosure statement as well; right?  MR. COPLE: Objection. Vague. A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read				
Page 51  Q. And you read the Hardell study 2002? A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an you haven't evaluated that study's internal you haven't evaluated that study's internal validity. Q. If it's a bad study, then you can't rely on it? A. Exactly. Q. Sure. A. Mm-hmm. A. Mem-hmm. A. Mem-hmm. A. Mem-hmm. A. Mem-hmm. A. Mem. COPLE: Objection. Vague. BY MR. MILLER: Q. If you could turn with me, please, to Page 424. A. Okay. Q. Do you see the Acknowledgments section there, ma'am? A. I do. Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right? A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read				
1 Q. And you read the Hardell study 2002? 2 A. Mm-hmm. 3 Q. And the McDuffie, right? 4 A. Mm-hmm. 5 Q. And Orsi? 6 A. Correct. 7 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; right? 9 right? 10 A. That is correct. 11 Q. And all of them come in on the right side of 1; right? 12 side of 1; right? 13 A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. 10 Q. If it's a bad study, then you can't rely on it? 11 Q. Sure. 12 A. Exactly. 24 And you understand that Dr. Chang, and validitys conflicts can be evaluated by people who read	25	A. I did.	25	A. I have become familiar with who
A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Br. Chang's study here that we're looking at; right? Q. And all of them come in on the right Q. And all of them come in on the right Q. And all of them come in on the right Q. And all of them come in on the right Q. And all, it was important to evaluate these studies Q. Do you see the Acknowledgments section Results of the meta-analysis, is that an Q. Do you see the Acknowledgments section Results of the meta-analysis, is that an Q. And it's important for authors of Peer-reviewed journals to have a disclosure Results of the meta-analysis, is then you haven't evaluated that study's internal Per yon it? Q. Sure. And you understand that Dr. Chang, and And wou understand that Dr. Chang, and And Wish MR. COPLE: Objection. Vague. BY MR. MILLER: Q. If you could turn with me, please, to Page 424. A. Okay. Q. Do you see the Acknowledgments section Results of the meta-analysis, is that an Results of the company. Results of the company. Results of the company. Results of the company. Results of the meta-analysis of the evaluate of the company. Results of the company. Resul		Page 51		Dage 53
A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Br. Chang's study here that we're looking at; right? Q. And all of them come in on the right Q. And all of them come in on the right Q. And all of them come in on the right Q. And all of them come in on the right Q. And all, it was important to evaluate these studies Q. Do you see the Acknowledgments section Results of the meta-analysis, is that an Q. Do you see the Acknowledgments section Results of the meta-analysis, is that an Q. And it's important for authors of Peer-reviewed journals to have a disclosure Results of the meta-analysis, is then you haven't evaluated that study's internal Per yon it? Q. Sure. And you understand that Dr. Chang, and And wou understand that Dr. Chang, and And Wish MR. COPLE: Objection. Vague. BY MR. MILLER: Q. If you could turn with me, please, to Page 424. A. Okay. Q. Do you see the Acknowledgments section Results of the meta-analysis, is that an Results of the company. Results of the company. Results of the company. Results of the company. Results of the meta-analysis of the evaluate of the company. Results of the company. Resul				rage 33
4 A. Mm-hmm. 5 Q. And Orsi? 6 A. Correct. 7 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; 9 right? 10 A. That is correct. 11 Q. And all of them come in on the right 12 side of 1; right? 13 A. Again, so the reason why I felt that 14 it was important to evaluate these studies 15 individually, and not just to look at the 16 results of the meta-analysis, is that an 17 association above I means absolutely nothing if 18 you haven't evaluated that study's internal 19 validity. 20 Q. If it's a bad study, then you can't 21 rely on it? 22 A. Exactly. 24 And you understand that Dr. Chang, and 25 MR. COPLE: Objection. Vague. 26 MR. COPLE: Objection. Vague. 27 MR. COPLE: Objection. Vague. 28 MR. COPLE: Objection. Vague. 29 MR. MILLER: 20 Q. If a studies for corporations? 30 MR. COPLE: Objection. Vague. 31 MR. COPLE: Objection. Vague. 31 MR. COPLE: Objection. Vague. 32 A. I think the purpose of the disclosure statement as well; right? 31 MR. COPLE: Objection. Vague. 32 A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read	1	Q. And you read the Hardell study 2002?	1	
4 A. Mm-hmm. 5 Q. And Orsi? 6 A. Correct. 7 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; 9 right? 10 A. That is correct. 11 Q. And all of them come in on the right 12 side of 1; right? 13 A. Again, so the reason why I felt that 14 it was important to evaluate these studies 15 individually, and not just to look at the 16 results of the meta-analysis, is that an 17 association above I means absolutely nothing if 18 you haven't evaluated that study's internal 19 validity. 20 Q. If it's a bad study, then you can't 21 rely on it? 22 A. Exactly. 24 And you understand that Dr. Chang, and 24 studies for corporations? MR. COPLE: Objection. Vague.  8 MR. COPLE: Objection. Vague.  9 A. I really know nothing about the mission of the company.  10 mission of the company.  11 BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  15 Q. Do you see the Acknowledgments section there, ma'am?  A. I do. Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read				Exponent is. I know that Dr. Chang works for
6 A. Correct. 7 Q. And the meta-analysis RR, that's from 8 Dr. Chang's study here that we're looking at; 9 right? 10 A. That is correct. 11 Q. And all of them come in on the right 12 side of 1; right? 13 A. Again, so the reason why I felt that 14 it was important to evaluate these studies 15 individually, and not just to look at the 16 results of the meta-analysis, is that an 17 association above 1 means absolutely nothing if 18 you haven't evaluated that study's internal 19 validity. 20 Q. If it's a bad study, then you can't 21 rely on it? 22 A. Exactly. 24 And you understand that Dr. Chang, and 26 BY MR. MILLER: 7 Q. That's what their job is? 8 MR. COPLE: Objection. Vague. 7 A. I really know nothing about the 8 mission of the company. 11 BY MR. MILLER: 12 Q. If you could turn with me, please, to 13 Page 424. 14 A. Okay. 15 Q. Do you see the Acknowledgments section there, ma'am? 16 A. I do. 17 Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right? 20 MR. COPLE: Objection. Vague. 21 A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read	2	A. Mm-hmm.	2	Exponent is. I know that Dr. Chang works for Exponent.
Q. And the meta-analysis RR, that's from Br. Chang's study here that we're looking at; right?  A. That is correct.  Q. And all of them come in on the right Q. And all of them come in on the right A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if validity.  Q. If it's a bad study, then you can't rely on it?  Q. That's what their job is? MR. COPLE: Objection. Vague. A. I really know nothing about the mission of the company. BY MR. MILLER: Q. If you could turn with me, please, to Page 424. A. Okay.  Do you see the Acknowledgments section there, ma'am? A. I do. Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague. A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read	2 3	<ul><li>A. Mm-hmm.</li><li>Q. And the McDuffie, right?</li></ul>	2 3	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does
Dr. Chang's study here that we're looking at; right?  A. That is correct.  Q. And all of them come in on the right  A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if validity.  Q. If it's a bad study, then you can't rely on it?  A. Exactly.  Dr. Chang's study here that we're looking at; right?  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read	2 3 4	<ul><li>A. Mm-hmm.</li><li>Q. And the McDuffie, right?</li><li>A. Mm-hmm.</li></ul>	2 3 4	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?
right?  A. That is correct.  Q. And all of them come in on the right  Q. And all of them come in on the right  A. Again, so the reason why I felt that  it was important to evaluate these studies  individually, and not just to look at the  results of the meta-analysis, is that an  results of the meta-analysis, is that an  you haven't evaluated that study's internal  validity.  Q. If it's a bad study, then you can't  rely on it?  A. I really know nothing about the  mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to  Page 424.  A. Okay.  15  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of  peer-reviewed journals to have a disclosure  statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure  statement is so that any sort of perceived  And you understand that Dr. Chang, and	2 3 4 5	<ul><li>A. Mm-hmm.</li><li>Q. And the McDuffie, right?</li><li>A. Mm-hmm.</li><li>Q. And Orsi?</li></ul>	2 3 4 5	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.
A. That is correct.  Q. And all of them come in on the right  Q. And all of them come in on the right  11 BY MR. MILLER:  12 side of 1; right?  13 A. Again, so the reason why I felt that  14 it was important to evaluate these studies  15 individually, and not just to look at the  16 results of the meta-analysis, is that an  17 association above 1 means absolutely nothing if  18 you haven't evaluated that study's internal  19 validity.  Q. If it's a bad study, then you can't  10 mission of the company.  11 BY MR. MILLER:  12 Q. If you could turn with me, please, to  13 Page 424.  A. Okay.  Q. Do you see the Acknowledgments section  16 there, ma'am?  A. I do.  Q. And it's important for authors of  19 validity.  19 peer-reviewed journals to have a disclosure  20 Q. If it's a bad study, then you can't  21 rely on it?  22 A. Exactly.  23 A. Exactly.  24 And you understand that Dr. Chang, and  24 conflicts can be evaluated by people who read	2 3 4 5 6	<ul><li>A. Mm-hmm.</li><li>Q. And the McDuffie, right?</li><li>A. Mm-hmm.</li><li>Q. And Orsi?</li><li>A. Correct.</li></ul>	2 3 4 5 6	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague. BY MR. MILLER:
11 Q. And all of them come in on the right 12 side of 1; right? 13 A. Again, so the reason why I felt that 14 it was important to evaluate these studies 15 individually, and not just to look at the 16 results of the meta-analysis, is that an 17 association above 1 means absolutely nothing if 18 you haven't evaluated that study's internal 19 validity. 20 Q. If it's a bad study, then you can't 21 rely on it? 22 A. Exactly. 23 Q. Sure. 24 And you understand that Dr. Chang, and 20 If you could turn with me, please, to 21 Page 424. 24 Page 424. 26 A. Okay. 27 Q. Do you see the Acknowledgments section there, ma'am? 28 Q. Do you see the Acknowledgments section there, ma'am? 29 Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right? 20 A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read	2 3 4 5 6 7	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from</li> </ul>	2 3 4 5 6 7	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague. BY MR. MILLER: Q. That's what their job is?
side of 1; right?  A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. If you could turn with me, please, to Page 424.  A. Okay.  Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  If where, ma'am?  A. I do.  Results of the meta-analysis, is that an peer-reviewed journals to have a disclosure statement as well; right?  A. I do.  A. I think to purpose of the disclosure statement is so that any sort of perceived And you understand that Dr. Chang, and A. I think the purpose of the disclosure conflicts can be evaluated by people who read	2 3 4 5 6 7 8	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from</li> <li>Dr. Chang's study here that we're looking at;</li> </ul>	2 3 4 5 6 7 8	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.
A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Real Page 424.  A. Okay.  A. I do.  Real Page 424.  A. I do.  A. I do.  Real Page 424.  A. I do.  A. I think the purpose of the disclosure  A. I do.  A. I do.  A. I think the purpose of the disclosure  A. I think the pur	2 3 4 5 6 7 8	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right?</li> </ul>	2 3 4 5 6 7 8	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the
it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  R. A. I	2 3 4 5 6 7 8 9	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right?</li> <li>A. That is correct.</li> <li>Q. And all of them come in on the right</li> </ul>	2 3 4 5 6 7 8 9 10	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:
individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do. Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  In think the purpose of the disclosure A. I think the purpose of the disclosure statement is so that any sort of perceived And you understand that Dr. Chang, and A. I do. A.	2 3 4 5 6 7 8 9 10 11	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right?</li> <li>A. That is correct.</li> <li>Q. And all of them come in on the right side of 1; right?</li> </ul>	2 3 4 5 6 7 8 9 10 11	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to
results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. And it's important for authors of peer-reviewed journals to have a disclosure attement as well; right?  In there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure attement as well; right?  In think the purpose of the disclosure A. I think the purpose of the disclosure attement is so that any sort of perceived And you understand that Dr. Chang, and A. I do.	2 3 4 5 6 7 8 9 10 11 12 13	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from</li> <li>Dr. Chang's study here that we're looking at; right?</li> <li>A. That is correct.</li> <li>Q. And all of them come in on the right side of 1; right?</li> <li>A. Again, so the reason why I felt that</li> </ul>	2 3 4 5 6 7 8 9 10 11 12	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.
association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.  Q. If it's a bad study, then you can't rely on it?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement is so that any sort of perceived And you understand that Dr. Chang, and  A. I do.  A. I think to purpose of the disclosure conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from</li> <li>Dr. Chang's study here that we're looking at; right?</li> <li>A. That is correct.</li> <li>Q. And all of them come in on the right side of 1; right?</li> <li>A. Again, so the reason why I felt that it was important to evaluate these studies</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.
you haven't evaluated that study's internal validity.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  I MR. COPLE: Objection. Vague. A. Exactly.  Q. Sure.  And you understand that Dr. Chang, and  24 conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from</li> <li>Dr. Chang's study here that we're looking at; right?</li> <li>A. That is correct.</li> <li>Q. And all of them come in on the right side of 1; right?</li> <li>A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section
19 validity. 20 Q. If it's a bad study, then you can't 21 rely on it? 22 A. Exactly. 23 Q. Sure. 24 And you understand that Dr. Chang, and 29 peer-reviewed journals to have a disclosure 20 statement as well; right? 21 MR. COPLE: Objection. Vague. 22 A. I think the purpose of the disclosure 23 statement is so that any sort of perceived 24 conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?
20 Q. If it's a bad study, then you can't 21 rely on it? 22 A. Exactly. 23 Q. Sure. 24 And you understand that Dr. Chang, and 20 statement as well; right? 21 MR. COPLE: Objection. Vague. 22 A. I think the purpose of the disclosure 23 statement is so that any sort of perceived 24 conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	<ul> <li>A. Mm-hmm.</li> <li>Q. And the McDuffie, right?</li> <li>A. Mm-hmm.</li> <li>Q. And Orsi?</li> <li>A. Correct.</li> <li>Q. And the meta-analysis RR, that's from</li> <li>Dr. Chang's study here that we're looking at; right?</li> <li>A. That is correct.</li> <li>Q. And all of them come in on the right side of 1; right?</li> <li>A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.
21rely on it?21MR. COPLE: Objection. Vague.22A. Exactly.22A. I think the purpose of the disclosure23Q. Sure.23statement is so that any sort of perceived24And you understand that Dr. Chang, and24conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of
A. Exactly.  Q. Sure.  And you understand that Dr. Chang, and  22  A. I think the purpose of the disclosure  23 statement is so that any sort of perceived  24 conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure
Q. Sure.  23 statement is so that any sort of perceived 24 And you understand that Dr. Chang, and 23 statement is so that any sort of perceived 24 conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. Q. If it's a bad study, then you can't	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?
And you understand that Dr. Chang, and 24 conflicts can be evaluated by people who read	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. Q. If it's a bad study, then you can't rely on it?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.
3,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. Q. If it's a bad study, then you can't rely on it? A. Exactly.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure
this is Exhibit 23-4, she found an increased 25 the paper.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. Q. If it's a bad study, then you can't rely on it? A. Exactly. Q. Sure.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement is so that any sort of perceived
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	A. Mm-hmm. Q. And the McDuffie, right? A. Mm-hmm. Q. And Orsi? A. Correct. Q. And the meta-analysis RR, that's from Dr. Chang's study here that we're looking at; right? A. That is correct. Q. And all of them come in on the right side of 1; right? A. Again, so the reason why I felt that it was important to evaluate these studies individually, and not just to look at the results of the meta-analysis, is that an association above 1 means absolutely nothing if you haven't evaluated that study's internal validity. Q. If it's a bad study, then you can't rely on it? A. Exactly. Q. Sure. And you understand that Dr. Chang, and	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Exponent is. I know that Dr. Chang works for Exponent.  Q. Do you know whether Exponent does studies for corporations?  MR. COPLE: Objection. Vague.  BY MR. MILLER:  Q. That's what their job is?  MR. COPLE: Objection. Vague.  A. I really know nothing about the mission of the company.  BY MR. MILLER:  Q. If you could turn with me, please, to Page 424.  A. Okay.  Q. Do you see the Acknowledgments section there, ma'am?  A. I do.  Q. And it's important for authors of peer-reviewed journals to have a disclosure statement as well; right?  MR. COPLE: Objection. Vague.  A. I think the purpose of the disclosure statement is so that any sort of perceived conflicts can be evaluated by people who read

	Page 54		Page 56
1	BY MR. MILLER:	1	risk between glyphosate and non-Hodgkin's
2	Q. Fair enough.	2	lymphoma, who was it funded by, ma'am?
3	Let's look at the acknowledgements.	3	MR. COPLE: Objection. Lacks
4	"The authors" which include Dr. Chang	4	foundation.
5	"wish to thank John Acquavella and Thomas	5	A. So first of all, I don't I don't
6	Sorahan for their thoughtful comments on earlier	6	think that the meta-analysis of 1.3 really tells
7	drafts of this manuscript."	7	us anything about the association between
8	Do you know who John Acquavella is?	8	glyphosate and NHL. But I can read the funding
9	A. I'm familiar with him only because I	9	statement in this paper.
10	read a couple of his papers.	10	BY MR. MILLER:
11	Q. Are you aware that he was a full-time	11	Q. Yes, if you would, please.
12	employee epidemiologist for Monsanto?	12	A. Okay. "This work was supported by
13	MR. COPLE: Objection. Lacks	13	Monsanto Company, the original producer and
14	foundation.	14	marketer of glyphosate formulations."
15	A. My only awareness of Dr. Acquavella is	15	Q. Do you know who Donna Farmer is?
16	in that he was an author of a couple of the	16	MR. COPLE: Objection. Lacks
17	papers that I read. I know nothing else about	17	foundation.
18	him.	18	A. I am not familiar with that name, no.
19	BY MR. MILLER:	19	BY MR. MILLER:
20	Q. I see.	20	Q. The people that comment and edit a
21	So, then, the answer to my question	21	particular paper, should their names be revealed
22	would be you did not know that he was a	22	in the paper?
23	full-time employee for Monsanto at one time?	23	MR. COPLE: Objection. Vague.
24	MR. COPLE: Objection. Lacks	24	A. I would say it really depends on
25	foundation, asked and answered.	25	specific context, the type of contribution
	Page 55		Page 57
1	A. I know nothing about his employment	1	someone is making. I couldn't generally say.
2	relationship, no.	2	someone is making. I couldn't generally say. BY MR. MILLER:
2	relationship, no. BY MR. MILLER:	2 3	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in
2 3 4	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was	2 3 4	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about
2 3 4 5	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for	2 3 4 5	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it
2 3 4 5 6	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto?	2 3 4 5 6	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague.
2 3 4 5 6 7	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for	2 3 4 5 6 7	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER:
2 3 4 5 6 7 8	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation.	2 3 4 5 6 7 8	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry.
2 3 4 5 6 7 8 9	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with	2 3 4 5 6 7 8	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague.
2 3 4 5 6 7 8 9	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the	2 3 4 5 6 7 8 9	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know,
2 3 4 5 6 7 8 9 10	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his	2 3 4 5 6 7 8 9 10	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided
2 3 4 5 6 7 8 9 10 11	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company.	2 3 4 5 6 7 8 9 10 11	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the
2 3 4 5 6 7 8 9 10 11 12	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly
2 3 4 5 6 7 8 9 10 11 12 13 14	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang	2 3 4 5 6 7 8 9 10 11 12 13 14	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that
2 3 4 5 6 7 8 9 10 11 12 13 14 15	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand?	2 3 4 5 6 7 8 9 10 11 12 13 14	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that fair?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the Chang paper before it was published?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that fair? A. I could only assume that this journal	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the Chang paper before it was published? MR. COPLE: Objection. Argumentative,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that fair? A. I could only assume that this journal is peer-reviewed. I've never published in this	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the Chang paper before it was published? MR. COPLE: Objection. Argumentative, lacks foundation, vague.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that fair? A. I could only assume that this journal is peer-reviewed. I've never published in this journal.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the Chang paper before it was published? MR. COPLE: Objection. Argumentative, lacks foundation, vague. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that fair? A. I could only assume that this journal is peer-reviewed. I've never published in this journal. Q. I see.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the Chang paper before it was published? MR. COPLE: Objection. Argumentative, lacks foundation, vague. BY MR. MILLER: Q. If you know. If you don't know
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	relationship, no. BY MR. MILLER: Q. And you know that Thomas Sorahan was an epidemiologist who did contract work for Monsanto? MR. COPLE: Objection. Lacks foundation. A. Again, Dr. Sorahan, I'm familiar with him only because, again, he authored some of the papers that I read. I know nothing about his specific relationship with any company. BY MR. MILLER: Q. So this may we call it the Chang meta-analysis for shorthand? A. Sure. Q. So the Chang meta-analysis was published in a peer-reviewed journal; is that fair? A. I could only assume that this journal is peer-reviewed. I've never published in this journal.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	someone is making. I couldn't generally say. BY MR. MILLER: Q. Did anyone who is not disclosed in your paper on ejaculation make comments about it MR. COPLE: Objection. Vague. BY MR. MILLER: Q and edit it? I'm sorry. MR. COPLE: Objection. Vague. A. I really don't recall, but, you know, it's possible that people could have provided editorial comments who weren't included on the manuscript. But I but I don't exactly remember all of the people who viewed that manuscript. BY MR. MILLER: Q. So you're not aware whether one of the lead toxicologists at Monsanto reviewed the Chang paper before it was published? MR. COPLE: Objection. Argumentative, lacks foundation, vague. BY MR. MILLER:

the significance of the forest plot, and I understand that, you would agree that it's been put together accurately as to what these studies represent? I mean what they found, whether they'e valid or not, that's - they're put in their correct place on the forest plot?  MR. COPLE: Objection. Lacks foundation, vague.  A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR. MILLER: Q. I understand that. I mutrying to get agreement on. MR. COPLE: Objection. BY MR. MILLER: Q. Very little MR. COPLE: Objection. Objection. Asked and answered.  BY MR. MILLER: Q. Very little MR. COPLE: Objection. Objection. Asked and answered.  I mutrying to get agreement on. MR. COPLE: Objection. Objection. Asked and answered.  I mutrying to get agreement on. MR. COPLE: Objection. Objection. Asked and answered.  I mutrying to get agreement on. MR. COPLE: Objection. Objection. Asked and answered.  I mutrying to get agreement on. MR. COPLE: Objection. Objection. Asked and answered.  I mutrying to get agreement on. MR. COPLE: Objection. Objection. Asked and answered.  I mutrying to get agreement on. MR. COPLE: Objection. Objection. Asked and answered.  A. I can't speak to Dr. Chang's, you And those studies on the forest plot, that sall block box on 23-3 down inaccurately, that is to say, she simply did not follow fundamental rules of epidemiology as to where to place the black boxes? That's all. MR. COPLE: Objection. Asked and answered.  A. Honestly we can - in order to tell you whether or not the black boxes were placed in the correct place, I would need to go back to another study on high ejaculation and get the same results; rac?  MR. COPLE: Objection. Counsel is testifying. Argumentative.  MR. COPLE: Objection. Speak and we can do this by taking each study out and we can do this by taking each		Page 58		Page 60
2 understand that, you would agree that it's been 3 put together accurately as to what these studies 4 represent? I mean what they found, whether 5 they're valid or not, that's - they're put in 6 their correct place on the forest plot? 7 MR. COPLE: Objection. Lacks 8 foundation, vague. 9 A. I would argue that a study that lacks 10 internal validity should never be included on 11 any forest plot. 12 BY MR. MILLER: 13 Q. I understand that. 14 But the numbers from the study were 15 accurately placed on the forest plot, that's all 16 I'm trying to get agreement on. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. Very little - 10 MR. COPLE: Objection. 21 Asked and answered. 22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to  Page 59 1 consider the internal validity of those studies. 10 And I understand they're meaningless 10 to you. They weren't meaningless to the World 11 Health Organization, but on - that's not my 12 question. I'm trying to get away from that 13 debate now. 14 MR. COPLE: Objection. Counsel is 15 testifying. Argumentative. 16 BY MR. MILLER: 17 MR. COPLE: Objection. Counsel is 18 MR. COPLE: Objection. Counsel is 19 WR. MR. MILLER: 20 Q. Kay. Here we go. In science, if 21 Someone does a study and shows an association 22 we can do this by taking each study out and we 23 can draw it on the forest plot, or we can sort 24 of agree that Dr. Chang, who is being funded by 25 MR. COPLE: Objection. Counsel is 26 mR. COPLE: Objection. Counsel is 27 mR. COPLE: Objection. Argumentative, 28 MR. COPLE: Objection. Argumentative, 29 asked and answered. 20 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 25 the first meta-analysis. It is, is in meta-analysis. 26 I'm just a meta-analysis. 27 It and the studes included a lack internal avalidity, and tacks it is in sort tell you that	1	the significance of the forest plot, and I	1	asked and answered
a put together accurately as to what these studies to they evalid or not, that's — they're put in their correct place on the forest plot?  MR. COPLE: Objection. Lacks foundation, vague.  A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR. MILLER:  A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR. MILLER:  A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR. MILLER:  A. I understand that.  But the numbers from the study were accurately placed on the forest plot, that's all for Irm trying to get agreement on.  MR. COPLE: Objection. Objection.  Asked and answered.  A. Honestly we can—in order to tell you that this is accurate because, in my view, it's not telling us anything.  Q. Very little—  A. I would argue that a study were accurately placed on the forest plot, that's all internal validity of those studies.  BY MR. MILLER:  Q. Very little—  A. The numbers are meaningless. So it's very easy to find an association between one thing and another thing. But if what you're interested in is in causality, you have to  Fage 59  Consider the internal validity of those studies.  BY MR. MILLER:  Q. And I understand they're meaningless to the World Health Organization, but on—that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Hars all I'm sking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do		•		
feptresent? I mean what they found, whether they're valid or not, that's they're put in they're valid or not, that's they're meaningless to they were and oth is by taking each study out and we can draw it on the forest plot, or we can sort of plot and answord of the she how we and draw it on the forest plot, or we can sort of plot and				
they're valid for not, that's - they're put in their correct place on the forest plot?  MR, COPLE: Objection. Lacks foundation, vague.  A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR, MILLER:  BY MR, MILLER:  MR, COPLE: Objection. Objection.  A. The numbers are meaningless. So it's very easy to find an association between one the thing. But if what you're interested in is in causality, you have to  Page 59  consider the internal validity of those studies. BY MR, MILLER:  A. And I understand they're meaningless to the World Health Organization, but on - that's not my question. In trying to get away from that debate now.  MR, COPLE: Objection. Counsel is testifying. Argumentative. BY MR, MILLER:  Q. Hard's and another that you're and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by a many to make the point estimates that were selected.  Shy MR, MILLER:  Page 59  Page 61  BY MR, MILLER:  Q. Okay. Here we go. In science, if someone does a study and shows an association, and grostation and grostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and grostate cancer, if that association and grostate cancer, if that association is a real association, and I don't quite know what you mean by that.  MR, COPLE: Objection. Argumentative, asked and answered.  Page 61  BY MR, MILLER:  Q. Hare is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by MR. COPLE: Objection. Argumentative, asked and answered.  Page 61  BY MR, MILLER:  Q. Oray we never used the phrase "a real associations, or ow variable. Offenti				
their correct place on the forest plot?  MR. COPLE: Objection. Lacks foundation, vague.  A. I would argue that a study that lacks initernal validity should never be included on any forest plot.  BY MR. MILLER: Q. I understand that.  But the numbers from the study were accurately placed on the forest plot, that's all I'm trying to get agreement on.  MR. COPLE: Objection. BBY MR. MILLER: Q. Very little —  MR. COPLE: Objection. Objection.  Asked and answered. A. The numbers are meaningless. So it's very easy to find an association between one thing and another thing. But if what you're interested in is in causality, you have to  Page 59  consider the internal validity of those studies. BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on — that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER: Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection. Argumentative, and the providence of the providence of the plot accurately.  MR. COPLE: Objection. Argumentative, asked and answered.  A. Honestly we can — in order to tell you whether or not the black boxes were placed where the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected.  BY MR. MILLER: Q. Way. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that a meta- provident providence of the place o				
MR. COPLE: Objection. Lacks foundation, vague.  A. I would argue that a study that lacks intermal validity should never be included on any forest plot.  BY MR. MILLER:  Q. I understand that.  But the numbers from the study were accurately placed on the forest plot, that's all life. I'm trying to get arguement on.  MR. COPLE: Objection.  BY MR. MILLER:  Q. Very little  MR. COPLE: Objection. Objection.  Asked and answered.  A. The numbers are meaningless. So it's very easy to find an association between one thing. But if what you're interested in is in causality, you have to  Page 59  consider the internal validity of those studies.  BY MR. MILLER:  Q. And I understand they're meaningless to to you. They weren't meaningless to the World Health Organization, but on that's not my question. Thr trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  MR. COPLE: Objection. Counsel is provided the point estimates that were selected.  Page 59  Page 61  BY MR. MILLER:  Q. Okay. Here we go. In science, if someone does a study and shows an association, is a real association, and I don't quite know what are also to you when the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Mn. MR. COPLE: Objection. Argumentative, asked and answered.  MR. COPLE: Objection.  MR. COPLE: Objection. Argumentative, asked and answered.  MR. COPLE: Objection. Argumentative, asked and answered.  MR. COPLE: Objection. Argumentative, asked and answered.  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  Developed the internal validity of those studies.  MR. COPLE: Objection. Argumentative, asked and answered.  Developed the internal validity of those studies.  MR. COPLE: Objection. Argumentative, asked and answered.  A. Thought stable and other the forest plot, or we can sort of agree that Dr. Chang, who is being f				
foundation, vague.  A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR. MILLER:  Q. I understand that.  But the numbers from the study were accurately placed on the forest plot, that's all l'm trying to get agreement on.  MR. COPLE: Objection.  Page 59  Consider the internal validity of those studies.  BY MR. MILLER:  Q. A. The numbers are meaningless. So it's vay, she simply did not follow fundamental rules of epidemiology as to where to place the black boxes. So That's all.  MR. COPLE: Objection. Objection.  Page 59  consider the internal validity of those studies.  BY MR. MILLER:  Q. And I understand they're meaningless to the World Health Organization, but on — that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. COPLE: Objection. Carp that of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot, or we can sort of the current of the pot accurately.  MR. COPLE: Objection.  MR. COPL				
A. I would argue that a study that lacks internal validity should never be included on any forest plot.  BY MR. MILLER:  Q. I understand that.  But the numbers from the study were accurately placed on the forest plot, that's all 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8	•	8	
10 internal validity should never be included on any forest plot.  11 any forest plot.  12 BY MR. MILLER: 13 Q. I understand that. 14 But the numbers from the study were in accurately placed on the forest plot, that's all in the numbers from the study were in accurately placed on the forest plot, that's all in the numbers are meaningles. So it's interested in is in causality, you have to  14 Asked and answered. 15 Asked and answered. 16 A. The numbers are meaningless. So it's interested in is in causality, you have to  17 Asked and answered. 18 BY MR. MILLER: 19 Q. Very little— 20 A. The numbers are meaningless. So it's interested in is in causality, you have to  21 Asked and answered. 22 A. The numbers are meaningless. So it's interested in is in causality, you have to  23 very easy to find an association between one in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected.  24 Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 2 BY MR. MILLER: 3 Q. And I understand they're meaningless to the World Health Organization, but on—that's not my question. I'm trying to get away from that debate now.  3 MR. COPLE: Objection. Counsel is testifying. Argumentative. 3 Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Mnsanto, put these blots down on the forest plot accurately.  3 MR. COPLE: Objection. Counsel is testifying. Argumentative. 3 Q. That's all I'm asking. 4 Q. That's all I'm asking. 5 MR. COPLE: Objection. Incomplete hypothetical, vague. 5 MR. COPLE: Objection. Argumentative, asked and answered. 6 MR. COPLE: Objection. Argumentative, asked and answered. 7 A. No, I wouldn't use that, because associations. 8 WR. COPLE: Objection. Argumentative, asked and answered. 8 WR. COPLE: Objection. Argumentative, asked and answered. 9 Q. Or do you think Dr. Chang messed it up? 9 Q. Or do you thi	9		9	
any forest plot BY MR. MILLER: Q. I understand that. But the numbers from the study were accurately placed on the forest plot, that's all form trying to get agreement on. MR. COPLE: Objection. BY MR. MILLER: Q. Very little MR. COPLE: Objection. Objection. Asked and answered. A. The numbers are meaningless. So it's very easy to find an association between one thing and another thing. But if what you're tinterested in is in causality, you have to  Page 59  consider the internal validity of those studies. BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. Thi trying to get away from that debate now. MR. COPLE: Objection. Counsel is testifying. Argumentative. MR. COPLE: Objection. Counsel is more making the plot accurately. MR. MILLER: Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by MR. MR. COPLE: Objection. Counsel is plot accurately. MR. COPLE: Objection. BY MR. MILLER: Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by MR. COPLE: Objection. Counsel is plot accurately.  MR. COPLE: Objection. BY MR. MILLER: Q. Here we go. In science, if someone does a study and shows an association, and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. BY MR. MILLER: Q. That's all I'm asking.  MR. COPLE: Objection. PAGE OF A COPLE: Objection. BY MR. MILLER: Q. You've never used the phrase "a real association"? A. No, I wouldn't use that, because associations. Q. As a scientist, is it more important tyo unify orive able to repeat the association	10		10	
12 BY MR. MILLER: 13 Q. I understand that. 14 But the numbers from the study were 15 accurately placed on the forest plot, that's all 16 I'm trying to get agreement on. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. Very little - 20 MR. COPLE: Objection. Objection. 21 Asked and answered. 22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to  Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 3 Q. And I understand they're meaningless to the World Health Organization, but on that's not my question. Tm trying to get agreement on. 3 Q. Are and of this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being indeed by MR. MILLER: 10 Q. Here is what I'm trying to ask. And we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being indeed by MR. COPLE: Objection. 2 BY MR. MILLER: 3 Q. That's all Tm asking. 4 MR. COPLE: Objection. 5 MR. COPLE: Objection. Counsel is testfying. Argumentative. 5 MR. COPLE: Objection. Counsel is plot accurately. 6 MR. COPLE: Objection. 7 MR. COPLE: Objection. 8 MR. COPLE: Objection. 8 MR. COPLE: Objection. Counsel is testfying. Argumentative. 9 MR. COPLE: Objection. 10 Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being that is to say, she simply did not follow fundented black boxes on 23-3 down inaccurately. 14 MR. COPLE: Objection. 25 MR. COPLE: Objection. 26 MR. COPLE: Objection. 27 MR. COPLE: Objection. 28 MR. MILLER: 29 Q. That's all Tm asking. 30 MR. COPLE: Objection. Argumentative, asked and answered. 31 MR. COPLE: Objection. Argumentative, asked and answered. 32 MR. COPLE: Objection. Argumentative, asked and answered. 33 MR. COPLE: Objection. Argumentative, asked and answered. 34 MR. COPLE: Objection. Argumentative, aske	11	The state of the s	11	•
Description of the study were an opinion as to whether Dr. Chang put any of the black boxes on 23-3 down inaccurately; that is to say, she simply did not follow fundamental rules of epidemiology as to where to place the black boxes or 23-3 down inaccurately; that is to say, she simply did not follow fundamental rules of epidemiology as to where to place the black boxes? That's all 18 BY MR. MILLER: 18 18 19 Q. Very little - 19 MR. COPLE: Objection. Objection. Asked and answered. 20 A. The numbers are meaningless. So it's very easy to find an association between one thing and another thing. But if what you're 24 thing and another thing. But if what you're 25 interested in is in causality, you have to 25 place the black boxes? That's all MR. COPLE: Objection. Asked and answered. 21 and answered. 22 place the black boxes were placed in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected. 25 place that is reasonable to another study on high ejaculation and the prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and prostate cancer, if that association is a real association, and I don't quite know what you mean by that. 26 plot accurately. 27 mR. COPLE: Objection. Argumentative, asked and answered. 28 py MR. MILLER: 29 Q. That's all I'm asking. 29 Q. That's all I'm asking. 20 Q. Or do you think Dr. Chang messed it up? 24 up? 25 plot do you fink Dr. Chang messed it up? 24 up? 25 plot do you fink Dr. Chang messed it up? 24 up? 25 plot do you fink Dr. Chang messed it up? 24 up? 25 plot do you think Dr. Chang messed it up? 24 up? 25 plot do you think Dr. Chang messed it up? 25 plot question. 27 plot plot plot plot plot plot plot plot	12	• •	12	
14 But the numbers from the study were 15 accurately placed on the forest plot, that's all 16 I'm trying to get agreement on. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. Very little 20 MR. COPLE: Objection. Objection. 21 Asked and answered. 22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to 26 Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 3 Q. And I understand they're meaningless to the World 4 Health Organization, but on - that's not my 6 question. I'm trying to get away from that 7 debate now. 8 MR. COPLE: Objection. Counsel is 9 testifying. Argumentative. 9 testifying. Argumentative. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest plot accurately. 16 MR. COPLE: Objection. 17 Asked and answered. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 MR. COPLE: Objection. 10 A. So one of the things that you said was 11 association, "and I don't quite know what you mean by that. 11 PMR. COPLE: Objection. Argumentative, asked and answered. 12 asked and answered. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 10 MR. COPLE: Objection. Argumentative, asked and answered. 11 A Honestly we can in order to tell black boxes? That's all. 12 MR. COPLE: Objection and answered. 12 A. Honestly we can in order to tell shack boxes? That's all. 12 A. Honestly we can in order to tell spow whether or not the black boxes? 12 Disach boxes? That's all. 14 A. Honestly we can in order to tell spow whether or not the black boxes or in order to tell spow whether or not the black boxes? 12 Disach boxes? That's all. 14 A. Honestly we can in order to tell spow whether or not the black boxes? 15 Disach boxes? That's all. 15 Disach boxes? That's all. 16 Disac	13		13	
accurately placed on the forest plot, that's all I'm trying to get agreement on. MR. COPLE: Objection.  Page 59  Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. BY MR. MILLER: Consider the internal validity of those studies. Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies.  BY MR. MILLER: Consider the internal validity of those studies. Consider the internal validity of those studies.	14		14	
16 I'm trying to get agreement on. 17 MR, COPLE: Objection. 18 BY MR, MILLER: 19 Q. Very little 20 MR, COPLE: Objection. Objection. 21 Asked and answered. 22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to 26 BY MR, MILLER: 2 BY MR, MILLER: 2 BY MR, MILLER: 3 Q. And I understand they're meaningless to the World 4 Health Organization, but on that's not my question. I'm trying to get away from that debate now. 3 MR, COPLE: Objection. Counsel is testifying. Argumentative. 4 Q. Here is what I'm trying to ask. And we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Mn, COPLE: Objection. Argumentative, asked and answered. 2 BY MR, MILLER: 3 Q. That's all I'm asking. 4 Q. Trat's all I'm asking. 4 Q. Or do you think Dr. Chang messed it up? 4 up? 4 Up? 4 Up? 4 to say, she simply did not follow fundamental rules of epidemiology as to where to place the black boxes where to place that black boxes where placed in answered.  1 A. Honestly we can – in order to tell you whether or not the black boxes were placed in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected.  1 A. Honestly we can – in order to tell you whether or not the black boxes were placed in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected.  1 BY MR. MILLER: 2 Q. Okay. Here we go. In science, if someone does a study and shows an association, association, one would expect to be able to do another study on h	15		15	
17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. Very little 20 MR. COPLE: Objection. Objection. 21 Asked and answered. 22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to  Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 3 Q. And I understand they're meaningless 4 to you. They weren't meaningless to the World 5 Health Organization, but on that's not my 6 question. I'm trying to get away from that 7 debate now. 8 MR. COPLE: Objection. Counsel is 9 testifying. Argumentative. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest 16 plot accurately. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Asked and answered. 21 asked and answered. 22 BY MR. MILLER: 22 Q. Or do you think Dr. Chang messed it 23 Q. Or do you think Dr. Chang messed it 24 up? 25 Uve whether or not the black boxes were placed in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected. 23 MR. MILLER: 24 Q. Okay. Here we go. In science, if someone does a study and shows an association, ilke you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true? 3 MR. COPLE: Objection. 4 So one of the things that you said was a real association. 5 Yen Willer and answered. 5 War MILLER: 6 De you've never used the phrase "a real association" and I don't quite know what you mean by that. 6 Orgentimes in epidemiology as to where to place. 7 Orgentime or to tell you whether or not the blac	16		16	
18 BY MR. MILLER: 19 Q. Very little 20 MR. COPLE: Objection. Objection. 21 Asked and answered. 22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to  Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 3 Q. And I understand they're meaningless to the World 4 to you. They weren't meaningless to the World 5 Health Organization, but on that's not my debate now. 8 MR. COPLE: Objection. Counsel is testifying. Argumentative. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can do are the forest plot, or we can sort of agree that Dr. Chang, who is being funded by MR. COPLE: Objection. Argumentative, asked and answered. 2 BY MR. MILLER: 3 Q. That's all I'm asking. 4 A. Honestly we can in order to tell you whether or not the black boxes were placed in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected.  Page 59  Page 61  BY MR. MILLER: 2 Q. Okay. Here we go. In science, if someone does a study and shows an association, association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was are results; true?  MR. COPLE: Objection.  A. No, I wouldn't use that, because association."  A. No, I wouldn't use that, because associations and passociations are al association in what we're interested in causal associations.  A. No, I wouldn't use that, because associations in epidemiology that's not what we're interested in we're interested in causal associations.  A. No, I wouldn't use that, because associations are provided to another variable.  Offentimes in epidemiology that's not what we're interested in causal associations.  A. So ore of the things that you said was a real association. The pro	17		17	
Asked and answered.  A. The numbers are meaningless. So it's very easy to find an association between one thing and another thing. But if what you're interested in is in causality, you have to  Page 59  Page 59  Consider the internal validity of those studies. BY MR. MILLER: Q. And I understand they're meaningless to be World Health Organization, but on—that's not my debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. MR. COPLE: Objection. Counsel is can draw it on the forest plot or we can sort of agree that Dr. Chang, who is being funded by MR. MILLER: Q. That's all I'm asking. MR. COPLE: Objection. Argumentative, asked and answered.  Page 59  Page 61  BY MR. MILLER: Q. Oraly Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Counsel is each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by MR. COPLE: Objection.  MR. COPLE: Objection.  MR. COPLE: Objection.  A. No, I wouldn't use that, because association, on every used the phrase "a real association" and I don't quite know what you mean by that.  BY MR. MILLER:  A. No, I wouldn't use that, because association one variable that's related to another variable.  Offentimes in epidemiology that's not what we're interested in. We're interested in causal association.  Q. As a scientist, is it more important to you if you're able to repeat the association	18	· · ·	18	black boxes? That's all.
Asked and answered.  A. The numbers are meaningless. So it's very easy to find an association between one thing and another thing. But if what you're interested in is in causality, you have to  Page 59  Page 59  Consider the internal validity of those studies. BY MR. MILLER: Q. And I understand they're meaningless to be World Health Organization, but on—that's not my debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. MR. COPLE: Objection. Counsel is can draw it on the forest plot or we can sort of agree that Dr. Chang, who is being funded by MR. MILLER: Q. That's all I'm asking. MR. COPLE: Objection. Argumentative, asked and answered.  Page 59  Page 61  BY MR. MILLER: Q. Oraly Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Counsel is each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by MR. COPLE: Objection.  MR. COPLE: Objection.  MR. COPLE: Objection.  A. No, I wouldn't use that, because association, on every used the phrase "a real association" and I don't quite know what you mean by that.  BY MR. MILLER:  A. No, I wouldn't use that, because association one variable that's related to another variable.  Offentimes in epidemiology that's not what we're interested in. We're interested in causal association.  Q. As a scientist, is it more important to you if you're able to repeat the association	19	Q. Very little	19	MR. COPLE: Objection. Asked and
22 A. The numbers are meaningless. So it's 23 very easy to find an association between one 24 thing and another thing. But if what you're 25 interested in is in causality, you have to  Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 3 Q. And I understand they're meaningless 4 to you. They weren't meaningless to the World 5 Health Organization, but on that's not my 6 question. I'm trying to get away from that 7 debate now. 8 MR. COPLE: Objection. Counsel is 9 testifying. Argumentative. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest 16 plot accurately. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 22 you whether or not the black boxes were placed in the correct place, I would need to go back to all of these individual studies and look at the point estimates that were selected.  24 all of these individual studies and look at the point estimates that were selected.  25 BY MR. MILLER: 26 Q. Okay. Here we go. In science, if 3 someone does a study and shows an association, a real association is a real association, new would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Lonomplete hypothetical, vague.  17 A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. To do you think Dr. Chang messed it 19 Q. To do you think Dr. Chang messed it 19 Q. To do you think Dr. Chang messed it 19 Q. To do you think Dr. Chang messed it 19 Q. To do you think Dr. Chang messed it 19 Q. To do you think Dr. Chang messed it 19 Q. To do you think Dr. Chang messed it 20 Q. So do you think Dr. Chang	20	MR. COPLE: Objection. Objection.	20	-
very easy to find an association between one thing and another thing. But if what you're interested in is in causality, you have to  Page 59  Page 59  Page 61  consider the internal validity of those studies. BY MR. MILLER: Q. And I understand they're meaningless to to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER: Q. Here is what I'm trying to ask. And Q. Here is what I'm trying to ask. And can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by plot accurately.  MR. COPLE: Objection. BY MR. MILLER: Q. Here is what I'm trying to ask. And Cople is objection.  MR. COPLE: Objection.  MR.	21	Asked and answered.	21	A. Honestly we can in order to tell
thing and another thing. But if what you're interested in is in causality, you have to  Page 59  Page 59  Consider the internal validity of those studies.  BY MR. MILLER:  Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And  MR. COPLE: Objection one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. Vau've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.  Q. That's all I'm asking.  Q. That's all I'm asking.  Q. That's all I'm asking.  Q. Ord do you think Dr. Chang messed it up?  Q. As a scientist, is it more important to you if you're able to repeat the association	22	A. The numbers are meaningless. So it's	22	you whether or not the black boxes were placed
Page 59  Page 59  Consider the internal validity of those studies.  BY MR. MILLER:  Q. And I understand they're meaningless to the World Health Organization, but on — that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And to a gree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Q. You've interested in causal associations.  A. No, I wouldn't use that, because one variable that's related to another variable.  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	23		23	in the correct place, I would need to go back to
Page 59  1 consider the internal validity of those studies. 2 BY MR. MILLER: 3 Q. And I understand they're meaningless 4 to you. They weren't meaningless to the World 5 Health Organization, but on that's not my 6 question. I'm trying to get away from that 6 debate now. 7 debate now. 7 MR. COPLE: Objection. Counsel is 9 testifying. Argumentative. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest 16 plot accurately. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 22 associations. 24 up? 25 PAG. Okay. Here we go. In science, if 26 Someone does a study and shows an association, 1like you did with the high ejaculation and 26 prostate cancer, if that association is a real 28 association, one would expect to be able to do 29 another study on high ejaculation and get the 29 association, one would expect to be able to do 20 another study on high ejaculation and get the 20 another study on high ejaculation and get the 21 association, one would expect to be able to do 21 another study on high ejaculation and get the 22 same results; true? 23 MR. COPLE: Objection. Counsel is 24 up? 24 by MR. MILLER: 25 Q. Okay. Here we go. In science, if 26 Q. Okay. Here we go. In science, if 27 Someone does a study and shows an association, and prostate cancer, if that association is a real 28 association, one would expect to be able to do 38 ansociation is a real 38 association, one would expect to be able to do 38 another study on high ejaculation and 48 association, one would expect to be able to be able to do 38 another study on high ejaculation and 49 association, one would expect to be able to be able to be able to do 38 another study on high ejaculation and 49 association, one would expect to	24	thing and another thing. But if what you're	24	all of these individual studies and look at the
consider the internal validity of those studies.  BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Dla accurately.  MR. COPLE: Objection.	25	interested in is in causality, you have to	25	point estimates that were selected.
consider the internal validity of those studies.  BY MR. MILLER:  Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. MILLER:  Do May. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, ne would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations.  MR. COPLE: Objection. Argumentative, asked and answered.  MR. COPLE: Objection. Argumentative, asked and answered.  Do That's all I'm asking.  Q. That's all I'm asking.  Q. That's all I'm asking.  Q. Or do you think Dr. Chang messed it up?  Q. As a scientist, is it more important to you if you're able to repeat the association,				
2 BY MR. MILLER: 3 Q. And I understand they're meaningless 4 to you. They weren't meaningless to the World 5 Health Organization, but on that's not my 6 question. I'm trying to get away from that 7 debate now. 8 MR. COPLE: Objection. Counsel is 9 testifying. Argumentative. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 MR. COPLE: Objection. 16 BY MR. MILLER: 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 MR. COPLE: Objection. 19 MR. COPLE: Objection. 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest 16 plot accurately. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 24 Uso did with the high shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do association is a real association, one would expect to be able to do association in and prostate cancer, if that association is a real association, one would expect to be able to do association in and prostate cancer, if that association is a real association, one would expect to be able to do association is a real association, one would expect to be able to do association in and prostate association, one would expect to be able to do association, one would expect to be able to do association in and I don't quite know what we's end association, one would expect to be able to do association, one world expect to be able to do association, not be forest association, one world expect to be able to do association, not be fo				Page 61
Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort doff agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. MILLER:  Deyrou've never used the phrase "a real association," and I don't quite know what you mean by that.  MR. COPLE: Objection.  MR. COPLE: Objection. Argumentative, asked and answered.  MR. COPLE: Objection. Argument	1	. 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1		
to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort doffer agree that Dr. Chang, who is being funded by MR. COPLE: Objection.  MR. COPLE: Objection. Argumentative,  MR. COPLE: Objection. Argumentative,  MR. COPLE: Objection. Argumentative,  MR. COPLE: Objection. Argumentative,  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association				
Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And can draw it on the forest plot, or we can sort dof agree that Dr. Chang, who is being funded by MR. COPLE: Objection.  MR. COPLE: Objection.  MR. MILLER:  Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. MILLER:  Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	2	BY MR. MILLER:	2	Q. Okay. Here we go. In science, if
question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort dof agree that Dr. Chang, who is being funded by MR. COPLE: Objection.  MR. COPLE: Objection.  BY MR. MILLER:  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  MR. COPLE: Objection.  A. No, I wouldn't use that, because associations, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3	BY MR. MILLER: Q. And I understand they're meaningless	2 3	Q. Okay. Here we go. In science, if someone does a study and shows an association,
debate now.  MR. COPLE: Objection. Counsel is  testifying. Argumentative.  MR. COPLE: Objection. Counsel is  testifying. Argumentative.  MR. COPLE: Objection. Incomplete  MR. COPLE: Objection. Incomplete  hypothetical, vague.  A. So one of the things that you said was  are results; true?  MR. COPLE: Objection. Incomplete  hypothetical, vague.  A. So one of the things that you said was  are real association," and I don't quite know  are real association," and I don't quite know  what you mean by that.  BY MR. MILLER:  Monsanto, put these blots down on the forest  plot accurately.  MR. COPLE: Objection.  MR. COPLE: Objection. Argumentative,  MR. COPLE: Objection. Argumentative,  A. No, I wouldn't use that, because  associations can be associations, you can see  one variable that's related to another variable.  Oftentimes in epidemiology that's not what we're  interested in. We're interested in causal  associations.  Q. As a scientist, is it more important  to you if you're able to repeat the association	2 3 4	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World	2 3 4	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and
8 MR. COPLE: Objection. Counsel is 9 testifying. Argumentative. 9 MR. COPLE: Objection. Incomplete 10 BY MR. MILLER: 11 Q. Here is what I'm trying to ask. And 11 A. So one of the things that you said was 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest 16 plot accurately. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 28 Same results; true?  9 MR. COPLE: Objection. Incomplete hypothetical, vague.  10 hypothetical, vague.  11 A. So one of the things that you said was  12 "a real association," and I don't quite know 13 what you mean by that.  BY MR. MILLER: 14 BY MR. MILLER: 15 Q. You've never used the phrase "a real association"? 17 A. No, I wouldn't use that, because 18 associations can be associations, you can see 19 Octentimes in epidemiology that's not what we're 21 interested in. We're interested in causal 22 associations. 23 Q. Or do you think Dr. Chang messed it 24 up? 24 to you if you're able to repeat the association	2 3 4 5	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my	2 3 4 5	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real
testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And  we can do this by taking each study out and we can draw it on the forest plot, or we can sort  Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  MR. COPLE: Objection.  MR. MILLER:  A. So one of the things that you said was  "a real association," and I don't quite know  what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because  BY MR. MILLER:  A. No, I wouldn't use that, because  one variable that's related to another variable.  MR. COPLE: Objection. Argumentative, associations.  WR. COPLE: Objection. Argumentative, associations.  Q. Or do you think Dr. Chang messed it  Q. As a scientist, is it more important to you're able to repeat the association	2 3 4 5 6	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that	2 3 4 5 6	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do
BY MR. MILLER:  Q. Here is what I'm trying to ask. And  we can do this by taking each study out and we can draw it on the forest plot, or we can sort  for agree that Dr. Chang, who is being funded by  Monsanto, put these blots down on the forest  plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  MR. MILLER:  BY MR. MILLER:  A. So one of the things that you said was  "a real association," and I don't quite know  what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real  association"?  A. No, I wouldn't use that, because  associations can be associations, you can see  one variable that's related to another variable.  MR. COPLE: Objection. Argumentative,  ARGUMENT ARGUME	2 3 4 5 6 7	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.	2 3 4 5 6 7	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the
11 Q. Here is what I'm trying to ask. And 12 we can do this by taking each study out and we 13 can draw it on the forest plot, or we can sort 14 of agree that Dr. Chang, who is being funded by 15 Monsanto, put these blots down on the forest 16 plot accurately. 17 MR. COPLE: Objection. 18 BY MR. MILLER: 19 Q. That's all I'm asking. 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 20 A. So one of the things that you said was 12 "a real association," and I don't quite know 12 what you mean by that. 13 BY MR. MILLER: 14 BY MR. MILLER: 15 Q. You've never used the phrase "a real association"? 16 association"? 17 A. No, I wouldn't use that, because 18 associations can be associations, you can see 19 Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations. 20 Q. As a scientist, is it more important 21 to you if you're able to repeat the association	2 3 4 5 6 7 8	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is	2 3 4 5 6 7 8	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?
we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  A. No, I wouldn't use that, because associations, you can see  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see  Oftentimes in epidemiology that's not what we're interested in causal associations.  Q. Or do you think Dr. Chang messed it up?  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.	2 3 4 5 6 7 8	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete
can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  A. No, I wouldn't use that, because  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because  associations can be associations, you can see one variable that's related to another variable.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. Or do you think Dr. Chang messed it up?  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8 9	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER:	2 3 4 5 6 7 8 9	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.
of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see Q. That's all I'm asking.  Q. That's related to another variable.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER: Q. Here is what I'm trying to ask. And	2 3 4 5 6 7 8 9 10	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was
Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations, you can see  19 Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations, you can see  19 One variable that's related to another variable.  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. Or do you think Dr. Chang messed it up?  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER: Q. Here is what I'm trying to ask. And we can do this by taking each study out and we	2 3 4 5 6 7 8 9 10 11	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know
plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  associations can be associations, you can see one variable that's related to another variable.  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. Or do you think Dr. Chang messed it up?  16  association"?  A. No, I wouldn't use that, because associations, you can see Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort	2 3 4 5 6 7 8 9 10 11 12 13	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.
17 A. No, I wouldn't use that, because 18 BY MR. MILLER: 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 21 A. No, I wouldn't use that, because 28 associations can be associations, you can see 29 one variable that's related to another variable. 20 Oftentimes in epidemiology that's not what we're 21 interested in. We're interested in causal 22 associations. 23 Q. As a scientist, is it more important 24 to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:
18 BY MR. MILLER: 19 Q. That's all I'm asking. 20 MR. COPLE: Objection. Argumentative, 21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 28 associations can be associations, you can see 29 one variable that's related to another variable. 20 Oftentimes in epidemiology that's not what we're 21 interested in. We're interested in causal 22 associations. 23 Q. As a scientist, is it more important 24 to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real
Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Q. Or do you think Dr. Chang messed it up?  One variable that's related to another variable. Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?
MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Q. Or do you think Dr. Chang messed it up?  Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because
21 asked and answered. 22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 21 interested in. We're interested in causal 22 associations. 23 Q. As a scientist, is it more important 24 to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see
22 BY MR. MILLER: 23 Q. Or do you think Dr. Chang messed it 24 up? 22 associations. 23 Q. As a scientist, is it more important 24 to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. That's all I'm asking.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.
Q. Or do you think Dr. Chang messed it up?  Q. As a scientist, is it more important to you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable.  Oftentimes in epidemiology that's not what we're
24 up? 24 to you if you're able to repeat the association	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable. Oftentimes in epidemiology that's not what we're interested in. We're interested in causal
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable. Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.
25 mai you find in one study in the next study?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	BY MR. MILLER:  Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative.  BY MR. MILLER:  Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection.  BY MR. MILLER:  Q. That's all I'm asking.  MR. COPLE: Objection. Argumentative, asked and answered.  BY MR. MILLER:  Q. Or do you think Dr. Chang messed it	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable. Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	BY MR. MILLER: Q. And I understand they're meaningless to you. They weren't meaningless to the World Health Organization, but on that's not my question. I'm trying to get away from that debate now.  MR. COPLE: Objection. Counsel is testifying. Argumentative. BY MR. MILLER: Q. Here is what I'm trying to ask. And we can do this by taking each study out and we can draw it on the forest plot, or we can sort of agree that Dr. Chang, who is being funded by Monsanto, put these blots down on the forest plot accurately.  MR. COPLE: Objection. BY MR. MILLER: Q. That's all I'm asking. MR. COPLE: Objection. Argumentative, asked and answered. BY MR. MILLER: Q. Or do you think Dr. Chang messed it up?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. Okay. Here we go. In science, if someone does a study and shows an association, like you did with the high ejaculation and prostate cancer, if that association is a real association, one would expect to be able to do another study on high ejaculation and get the same results; true?  MR. COPLE: Objection. Incomplete hypothetical, vague.  A. So one of the things that you said was "a real association," and I don't quite know what you mean by that.  BY MR. MILLER:  Q. You've never used the phrase "a real association"?  A. No, I wouldn't use that, because associations can be associations, you can see one variable that's related to another variable. Oftentimes in epidemiology that's not what we're interested in. We're interested in causal associations.  Q. As a scientist, is it more important to you if you're able to repeat the association

	Page 62		Page 64
1	MR. COPLE: Objection. Vague,	1	MR. MILLER: Jeffrey Traverse, are you
2	incomplete hypothetical.	2	still there?
3	A. It's very possible to replicate a	3	MR. TRAVERSE: Yeah, I'm here.
4	study and get wrong answers twice. So, no, I	4	MR. MILLER: Anyone else on the phone?
5	don't think replication is that valuable unless	5	Hearing no one, we'll begin.
6	you're confident in the results of the study in	6	(Whereupon, Rider Exhibit 23-5,
7	terms of that study's internal validity.	7	McDuffie, et al article, Non-Hodgkin's
8	BY MR. MILLER:	8	Lymphoma and Specific Pesticide
9	Q. And if it replicates three times, does	9	Exposures in Men, was marked for
10	that have any value?	10	identification.)
11	MR. COPLE: Objection. Asked and	11	BY MR. MILLER:
12	answered.	12	Q. Doctor, I just handed you 23-5, an
13	A. Again, you can replicate a study and	13	exhibit. Can we call that the McDuff article?
14	get the wrong answer repeatedly. So, you	14	A. McDuffie, sure.
15	know and there isn't a limit to the number of	15	Q. Dr. McDuffie.
16	times that that can happen.	16	Do you know Dr. McDuffie?
17	BY MR. MILLER:	17	A. I do not.
18	Q. Is multiple myeloma a form of	18	Q. Cancer Epidemiology, Biomarkers &
19	non-Hodgkin's lymphoma?	19	Prevention, a peer-reviewed journal?
20	A. The definition has relatively recently	20	A. Yes, it is.
21	changed. So that's reflected in some of the	21	Q. And so as we discussed before, the
22	epidemiologic papers. So in the more current	22	peer reviewer or reviewers would have analyzed
23	definition, multiple myeloma was included, yes.	23	this data and either accepted it, rejected it,
24	Q. Have you spoken to anyone at Exponent	24	or asked it to be revised?
25	since you've been retained by Monsanto?	25	MR. COPLE: Objection. Lacks
	Page 63		Page 65
1	A. No, I have not.	1	foundation.
2	Q. Did you e-mail anyone at Exponent, or	2	A. So again, I know from my own
3	did they look at any drafts of your report?	3	experience in both publishing and peer reviewing
4	A. I've had no contact with anyone at	4	for this journal that at least one peer reviewer
5	Exponent.	5	would be invited to comment on the article. I
6	Q. All right. So keep 23-3 in front of	6	don't recall whether this journal allows the
7	you, and let's go to some studies and look at	7	reviewers to give recommendations specifically
8	them.	8	on whether to accept or reject it.
9	MR. COPLE: Before we jump into the	9	Q. Okay. But at some point we can agree,
10	studies, we've been going about an hour. How	10	because it's published, that the editors of this
11	long do you plan to go before allowing Dr. Rider	11	journal decided it was worthy of being
12	to take a break?	12	published?
13	BY MR. MILLER:	13	A. Yes, we can agree.
14	Q. Any time you want to take a break,	14	Q. And it's published by, I want to
15	Doctor, it's fine with me.	15	count one, two, three, four, five, six,
16	A. Yeah, I could take a brief break.	16	seven, eight nine different scientists?
17	Q. Sure.	17	MR. COPLE: Objection. Vague.
18	A. Thank you.	18	A. I see nine different people listed in
19	THE VIDEOGRAPHER: Going off the	19	the author list. That's all I can say.
20	record. The time is 10:06.	20	BY MR. MILLER:
	(Whereupon, a recess was taken.)	21	Q. You're uncomfortable calling them
21			scientists?
22	THE VIDEOGRAPHER: Back on the record.	22	
22 23	The time is 10:16.	23	MR. COPLE: Objection. Argumentative.
22			

17 (Pages 62 to 65)

they're authors on this paper.  BY MR. MILLER:  Q. Well, it does tell you something about them in the paragraph right below; right?  MR. COPLE: Objection. Argumentative.  A. In the affiliations we can certainly see what department they're – or company they are affiliated with, yes.  BY MR. MILLER:  Q. Dr. McDuffic is with the Centre for adjusted the University of Saskatchewan; right?  A. At the University of Saskatchewan, yes.  Q. And Dr. Pahwa is at the National Care Institute of Canada, Epidemiology, University of Toronto; right?  A. Actually I don't think so. I think that's the person with the initials IRM.  Q. J. Red.  Q. J. Red.  Q. J. Red.  Q. J. Red.  Q. J. See, Thank you. Yes, ma'am. Yes.  Other scientists here who are authors are at the Centre for Health Evaluation & 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in Yancouver, British Columbia?  Page 67  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people or their background or training.  MR. COPLE: Objection. Vague.  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  MR. COPLE: Objection. Argumentative.  By MR. MILLER:  BY MR.		Page 66		Page 68
dem in the paragraph right below; right?  MR. COPLE: Objection. Argumentative.  A. In the affiliations we can certainly see what department they're or company they are affiliated with, yes.  BY MR. MILLER:  Q. Dr. McDuffie is with the Centre for 10 Q. Dr. McDuffie is with the Centre for 11 Agricultural Medicine, right?  A. At the University of Saskatchewan, 12 Q. Theosphonic acid: glyphosate." Do you see where I am in the table regarding individual compounds?  Live of the authors is at the National 14 Cancer Institute of Canada, Epidemiology, 15 University of Toronto; right?  A. Actually I don't think so. I think 17 A. Actually I don't think so. I think that's the person with the initials JRM.  Q. JRM.  Q. JRM.  Q. Jree. Thank you. Yes, ma'am. Yes.  Cother scientists here who are authors 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of the authors; yes.  Q. And one of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right?  A. Correct.  Q. So is it fair to call these people or their background or training.  BY MR. MILLER:  BY MR. MILLER:  A. Inthe well how how any of these people or their background or training.  BY MR. MILLER:  BY MR. MILLER:  A. Inthe well how how any of these people or their background or training.  BY MR. MILLER:  BY MR. Mill.LER:  A. Inthe well how how any of these people or their background or training.  BY MR. Mill.LER:  A. Inthe affiliations we can certainly by Mollingmorth, you understood they were retained by Mollingmorth, you understood they wore retained by Mollingmorth, you understood they were etained by Mollin	1	they're authors on this paper.	1	glyphosate and NHL. And before being retained
them in the paragraph right below; right?  MR. COPLE: Objection. Argumentative.  A. In the affiliations we can certainly see what department they're or company they as are affiliated with, yes.  BY MR. MILLER:  Q. Dr. McDuffie is with the Centre for 11 Agricultural Medicine, right?  A. At the University of Saskatchewan, yes.  Q. And Dr. Pahwa is at the National 14 Cancer Institute of Canada, Epidemiology, 15 Cancer Institute of Canada, Epidemiology, 16 University of Tornoto; right?  A. Actually I don't think so. I think that's the person with the initials JRM. 18 that's the person with the initials JRM. 19 Q. JRM. 20 A. McLaughlin. 20 Q. Isee. Thank you. Yes, ma'am. Yes. 21 Cherrocome Sciences at St. Paul Hospital in Vancouver, British Columbia? 24 Outcome Sciences at St. Paul Hospital in Vancouver, British Columbia? 25 Vancouver, British Columbia? 26 A. Correct. 10 Q. So is it fair to call these people of the authors is at the department of pathology at the University of Saskatchewan; 18 MR. COPLE: Objection. Vague. 18 MR. COPLE: Objection. Vague. 18 MR. MILLER: 50 A. Bain, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. 18 MR. MILLER: 19 M	2		2	by Hollingsworth, I had not done a full review
See MR COPLE: Objection. Argumentative. A. In the affiliations we can certainly see what department they're or company they are affiliated with, yes. BY MR, MILLER: 9   PWR, MILLER: 9   Q. Dr. McDuffie is with the Centre for Agricultural Medicine, right? 11   A. A. At the University of Saskatchewan, 12   A. A. Ithe University of Saskatchewan, 13   Yes. 14   Q. And Dr. Pahwa is at the National 15   Cancer Institute of Canada, Epidemiology, 16   University of Toronto; right? 16   A. A. At the University of Toronto; right? 17   A. Actually I don't think so. I think 18   that's the person with the initials JRM. 18   that's the person with the initials JRM. 19   Q. JRM. 19   Q. JRM. 19   Q. Jre. Thank you. Yes, ma'am. Yes. 21   Other scientists here who are authors as at the Centre of Health Evaluation & 23   are at the Centre for Health Evaluation & 23   are at the Centre for Health Evaluation & 23   are at the Centre for Health Evaluation & 23   Q. Thosphonic acid; glyphosate." Do you see where I am in the table regarding individual compounds? 15   Q. And it shows for exposed greater than two days per year. Am I reading that correctly? A. Right. There is unexposed, greater than zero to less than or equal to two days, it shows an odds ratio of the authors is at the 19   Vancouver, British Columbia? 17   A. That is another affiliation for one of the authors; yes. 19   Page 67	3	Q. Well, it does tell you something about	3	of that literature.
6 A. In the affiliations we can certainly 7 see what department they're or company they 8 are affiliated with, yes. 9 BY MR. MILLER: 9 Q. Dr. McDuffie is with the Centre for 10 Q. Dr. McDuffie is with the Centre for 11 Agricultural Medicine, right? 12 A. At the University of Saskatchewan, 13 yes. 14 Q. And Dr. Pahwa is at the National 15 Cancer Institute of Canada, Epidemiology, 16 University of Toronto; right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Ofther scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  Page 67  A. That is another affiliation for one of the authors, yes. Q. And one of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right? A. That is correct. Q. One of the authors is at the department of pathology at the University of Saskatchewan; right? A. A gain, thou know any of these people ones that you have referenced here, have either academic or some kind of government affiliation. The Mt., again, I don't know any of these people or their background or training. Page 167  MR. COPLE: Objection. Vague. A. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. Page 17  MR. COPLE: Objection. Vague. A. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. Page 18 lof of the wwho the defendant was, yes. A. Iknew who the defendant was, yes. A. Carrect. D. One of the authors is at the who the defendant was, yes. A. Iknew who the defendant was, yes. A. Carrect. D. One of the authors is at the way enterenced here, have either academic or some kind of government affiliation. But Again, I don't know any of these people or their background or training. But Again, I don't know any of these people or	4	them in the paragraph right below; right?	4	BY MR. MILLER:
7   see what department theyre or company they are affiliated with, yes.   8   are affiliated with, yes.   9   BY MR. MILLER:   9   Q. Okay. If you'd please turn with me to   10   Page 1161 of this peer-reviewed journal, Table   11   A. At the University of Saskatchewan,   12   A. Okay.   13   Q. 'Phosphonic acid: glyphosate.' Do you see where I am in the table regarding individual compounds?   14   Q. And Dr. Pahwa is at the National   14   see where I am in the table regarding individual compounds?   15   Q. And it shows for exposed greater than that's the person with the initials JRM.   18   that's the person with the initials JRM.   19   Q. JRM.   19   A. McLaughlin.   19   Q. Ise. Thank you, Yes, ma'am. Yes.   22   Other scientists here who are authors   23   are at the Centre for Health Evaluation & 23   are at the Centre for Health Evaluation & 23   are at the Centre for Health Evaluation & 24   Outcome Sciences at St. Paul Hospital in Vancouver, British Columbia?   Page 67   Page 69   Pag	5		5	Q. And when you were retained by
are affiliated with, yes.  BYMR. MILLER:  Q. Dr. McDuffie is with the Centre for  10	6	A. In the affiliations we can certainly	6	Hollingsworth, you understood they were retained
9 BY MR. MILLER: 10 Q. Dr. McDuffie is with the Centre for 11 Agricultural Medicine, right? 11 Agricultural Medicine, right? 12 A. At the University of Saskatchewan, 13 yes. 14 Q. And Dr. Pahwa is at the National 15 Cancer Institute of Canada, Epidemiology, 16 University of Torontor, right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 19 Q. JRM. 19 Q. JRM. 19 Q. Isee. Thank you. Yes, ma'am. Yes. 20 Other scientists here who are authors 21 are at the Centre for Health Evaluation & 22 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  Page 67  Page 67  Page 69  Page 11  A. That is another affiliation for one of the authors, yes. 3 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the department of pathology at the University of Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people or the free backer, and the confidence in the internal validity of the findings. 12 A. So meaning that the confidence in the internal validity of the findings. 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. 17 But, again, I don't know any of these people or the reacademic or some kind of government affiliation. 18 BY MR. MILLER: 19 BY MR. MILLER: 19 BY MR. MILLER: 10 C. Dr. Or McDufficine, right? 11 By MR. MILLER: 10 C. Dr. Actually in the findings of the statistical analysis	7	see what department they're or company they	7	by Monsanto; right?
10 Q. Dr. McDuffie is with the Centre for 11 Agricultural Medicine, right? 12 A. At the University of Saskatchewan, 13 yes. 14 Q. And Dr. Pahwa is at the National 15 Cancer Institute of Canada, Epidemiology, 16 University of Toronto; right? 17 A. A catually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 19 Q. JRM. 19 A. McLaughlin. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  Page 67  A. That is another affiliation for one of the authors, yes. 3 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the department of pathology at the University of Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 the irackground or training. 19 BY MR. MILLER: 20 Q. If sfair to say that, of course, you  Page 161  10 A. Okay.  A. Okay.  A. Okay.  A. Okay.  A. Okay.  A. Oka Ito.  A. Oka.  A. Okai.  A. Oka.  A. Okai.  A. Oka.  A. Otay.  A. Ido.  A. Ido.  A. Ido.  A. Ido.  A. Ido.  A. Ido.  A. Right. There is unexposed greater than two days and then greater than two days and then greater than two days, and then greater than two days, it shows an odds ratio of what, Doctor?  A. The odds ratio that's listed in this table is 2.12. But again, that number, you  Page 67  Page 67  Page 69  A. The odds ratio that's listed in this table is 2.12. But again, that number, you  Page 69  A. The odds ratio fact, every other - in fact, every other pesticide or herbicide that they investigated also has an odds ratio of 2.12 for greater than two days' use of glyphosate, is that	8	· · ·	8	The state of the s
11 Agricultural Medicine, right? 12 A. At the University of Saskatchewan, 13 yes. 13 yes. 14 Q. And Dr. Pahwa is at the National 15 Cancer Institute of Canada, Epidemiology, 2 deptending of the authors yes. 16 University of Toronto; right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 18 that's the person with the initials JRM. 19 Q. JRM. 19 Q. JRM. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 23 shows an odds ratio of what, Doctor? 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia? 25 Vancouver, British Columbia? 26 A. That is another affiliation for one of 2 the authors, yes. 27 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of 2 epidemiology, right? 28 A. That is correct. 29 Q. One of the authors is at the 4 department of pathology at the University of 5 Saskatchewan; right? 29 Saskatchewan; right? 20 A. Correct. 21 Q. So is it fair to call these people scientists? 21 MR. COPLE: Objection. Vague. 22 A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. 18 MR. COPLE: Objection. Vague. 19 BY MR. MILLER: 19 Correct 20 Corpomods? 20 And one of the satistical analysis see where I am in the table read: A. Okay. 2 Compounds? 4 A. Okay. 4 A. Ido. A. Okay. 4 A. Ido. A. Okay. 19 A. Ido. Ido. A. Ido. A. Ido. A. Ido. Ido. A. Ido. A. Ido. A. Ido. A. Ido. A. Ido. Ido. A. Ido. A. Ido. Ido. A. Ido. Ido. A. Ido. Ido. A.	9	BY MR. MILLER:	9	
12 A. At the University of Saskatchewan, yes. 13 yes. 14 Q. And Dr. Pahwa is at the National 15 Cancer Institute of Canada, Epidemiology, 16 University of Toronto; right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 20 A. McLaughlin. 21 Q. Isee. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 22 than zero to less than or equal to two days, and then greater than two days categories, yes. 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of 4 Alberta Cancer Board, the division of 6 epidemiology, right? 4 A. That is correct. 5 Q. One of the authors is at the 6 department of pathology at the University of 7 Saskatchewan; right? 4 A. Correct. 5 Q. So is it fair to call these people scientists?  MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the ones that you have referenced here, have either for eademic or some kind of government affiliation. In the table regarding individual compounds?  A. Id. d. A. Id. d. Q. And in thow days per year. Am I reading that correctly? A. Right. There is unexposed, greater than two days est han o requal to two days, and then greater than two day categories, yes. Q. And for greater than two day categories, yes. Q. And for greater than two days it stole in this table is 2.12. But again, that number, you  Page 67  Page 67  A. That is another affiliation of 4 the enthory of 2 the authors, yes. Q. And one of the authors is at the 4 department of pathology at the University of 5 Saskatchewan; right? A. The doa's ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding? A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative	10	Q. Dr. McDuffie is with the Centre for	10	Page 1161 of this peer-reviewed journal, Table
13 Q. "Phosphonic acid: glyphosate." Do you see where I am in the table regarding individual compounds?  14 Q. And Dr. Pahwa is at the National 15 Cancer Institute of Canada, Epidemiology, 16 University of Toronto; right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 10 Q. And it shows for exposed greater than two days per year. Am I reading that correctly? 19 Q. JRM. 10 A. McLaughlin. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  26 Page 67  1 A. That is another affiliation for one of 2 the authors, yes. 3 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of 5 epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the 8 department of pathology at the University of 9 Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 their background or training. 19 BY MR. MILLER: 20 Liniversity of Canada, Epidemiology, 12 for controlling in the table regarding individual compounds? 21 compounds? 22 A. I do. 24 A. I do. 24 A. Right. There is unexposed, greater than two days per year. Am I reading that correctly? 22 A. Right. There is unexposed, greater than two days per year. Am I reading that correctly? 23 A. Right. There is unexposed, greater than two days for exposed greater than two days and then greater than two days and then greater than two days far the greater than two days and then greater than two days is constant an or qual to two days and then greater than two days and then greater than two days intensity of the product of the authors and then greater than two days and then greater than t	11		11	
14    Q. And Dr. Pahwa is at the National   15    Cancer Institute of Canada, Epidemiology,   16    University of Toronto; right?   16    A. I do.   Q. And it shows for exposed greater than two days per year. Am I reading that correctly?   17    A. McLaughlin.   18    A. McLaughlin.   19    Q. JRM.   19    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   19    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   19    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   19    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   10    A. McLaughlin.   20    A. McLaughlin.   21    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   22    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   23    A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   4. A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   4. A. Right. There is unexposed, greater than two days per year. Am I reading that correctly?   4. A. Right. There is unexposed, greater than two days and then greater than two days, and then greater than two days and days ratio of what, Doctor?   A. That is another affiliation for one of the authors, yes.   2	12	A. At the University of Saskatchewan,	12	•
15 Cancer Institute of Canada, Epidemiology, 16 University of Toronto; right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 20 JRM. 21 Q. JRM. 22 A. McLaughlin. 23 are at the Centre for Health Evaluation & 22 then greater than two days, and then greater than two days, it shows an odds ratio of what, Doctor? 24 Outcome Sciences at St. Paul Hospital in Vancouver, British Columbia? 25 Vancouver, British Columbia? 26 A. That is another affiliation for one of the authors, yes. 27 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right? 28 A. That is correct. 39 Q. One of the authors is at the 4 Alberta Cancer Board, the division of epidemiology, right? 40 Q. One of the authors is at the 4 department of pathology at the University of Saskatchewan; right? 41 A. Correct. 42 Q. So is it fair to call these people or the find academic or some kind of government affiliation. 43 MR. COPLE: Objection. Vague. 44 A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. 45 Page 67 Page 67 Page 69  15 MR. COPLE: Objection. Vague. 16 A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. 19 BY MR. MILLIER: 20 Q. It's fair to say that, of course, you 21 Composite for exposed greater than two days and two days are peared than two days, and then greater than two days, and then greater than two days, it shows an odds ratio of what, Doctor? 24 A. The odds ratio to what, Doctor? 25 A. The odds ratio of voter chemicals. 26 And you'll also notice that almost every other in fact, every other pesticide or herbicide that they investigated also has an odds ratio above 1. 29 Q. One of the authors is at the every other in fact, every other pesticide or herbicide that they investigated also has an odds ratio above 1. 29 Q. The odds ratio of 2.12 for greater than two days are referenced here, hav	13	·		
16 University of Toronto; right? 17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of 4 Alberta Cancer Board, the division of 5 epidemiology, right? A. That is correct. Q. One of the authors is at the department of pathology at the University of Saskatchewan; right? A. A. That is coll these people 1 A. Correct. 1 Q. So is it fair to call these people 1 A. A. A. That is nonther affiliation. 17 But, again, I don't know any of these people or 18 there is unexposed greater than two days, and two days per year. Am I reading that correctly? A. Right. There is unexposed, greater than two days, and then greater than two days, and then greater than two days, it shows an odds ratio of what, Doctor? A. The odds ratio of what, Doctor?  Page 67  Page 67  Page 69  A. The odds ratio that's listed in this table is 2.12. But again, that number, you desire the authors is at the department of pathology at the University of sakiathewan; right?  A. Correct.  Q. So is it fair to call these people or the intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	14		14	
17 A. Actually I don't think so. I think 18 that's the person with the initials JRM. 19 Q. JRM. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of 2 the authors, yes. 3 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of 5 epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the 8 department of pathology at the University of 9 Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or their background or training. 20 It's fair to say that, of course, you 21 then greater than two days categories, yes. 22 Q. And for greater than two days categories, yes. 24 O. And for greater than two days categories, yes. 25 d. And for greater than two days categories, yes. 26 Q. And for greater than two days categories, yes. 27 Q. And for greater than two days categories, yes. 28 Q. And for greater than two days categories, yes. 29 Q. And for greater than two days categories, yes. 20 Q. And for greater than two days categories, yes. 20 Q. And for greater than two days categories, yes. 21 then greater than two days categories, yes. 22 Q. And for greater than two days categories, yes. 23 then greater than two days categories, yes. 24 Q. And for greater than two days categories, yes. 25 Q. And for greater than two days categories, yes. 26 Q. And for greater than two days categories, yes. 27 Q. And for greater than two days categories, yes. 28 Q. And for greater than two days categories, yes. 29 Q. And one of the authors is at the then greater than two days categories, yes. 29 A. The odds ratio to sate the feature o	15		15	•
that's the person with the initials JRM.  Q. JRM.  Q. JRM.  Q. Jrese. Thank you. Yes, ma'am. Yes.  Other scientists here who are authors are at the Centre for Health Evaluation &  Outcome Sciences at St. Paul Hospital in  Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewar; right?  A. Correct.  Q. So is it fair to call these people scientists?  M. COPLE: Objection. Vague.  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. BY MR. MILLER:  Q. It's fair to say that, of course, you  18 by MR. MILLER:  Q. It's fair to say that, of course, you  19 BY MR. MILLER:  20 A. Right. There is unexposed, greater than two days, and then greater than two days categories, yes.  Q. And for greater than two days, it shows an odds ratio of what, Doctor?  A. The odds ratio that's listed in this table is 2.12. But again, that number, you  Page 67  Page 69  Page 69  Page 69  Page 69  R. Kight. There is unexposed, greater than two days cate gove day and then greater than two days cate gove and then greater than two days cate gove.  A. That is another affiliation for one of the authors, yes.  A. That is another affiliation for one of the authors, yes.  A. That is another affiliation for one of the authors, yes.  A. That is another affiliation for one of the authors is at the another chemicals.  A. That is another affiliation for one of the authors, yes.  A. The odds ratio obava 1.  A. Kight. There is unexposed, greater than two days, it shows an odds ratio of what, Doctor?  A. Kight. There is unexposed, greater than two days is so of what, Doctor?  A. Kight. There is unexposed, greater than two days is so of what, Doctor?  A. Right. Ther is unexposed, greater than two days is so doks an odds ratio of wh	16			
19 Q. JRM. 20 A. McLaughlin. 21 Q. I see. Thank you. Yes, ma'am. Yes. 22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  Page 67  Page 67  A. That is another affiliation for one of the authors, yes. Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right? A. That is correct. Q. One of the authors is at the department of pathology at the University of Saskatchewar; right? A. Correct. Q. So is it fair to call these people scientists? A. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. Page 19 A. Right. There is unexposed, greater than zero to less than or equal to two days, and then greater than two day categories, yes. Q. And for greater than two days categories, yes. Q. And for greater than two days categories, yes. Q. And for greater than two days ratio of what, Doctor? A. The odds ratio of what, Doctor? A. That is another affiliation of the watchis like of the inding statical of a cate		· ·		
A. McLaughlin.  Q. I see. Thank you. Yes, ma'am. Yes.  Other scientists here who are authors are at the Centre for Health Evaluation & 23 shows an odds ratio of what, Doctor?  Outcome Sciences at St. Paul Hospital in Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewar; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  BY MR. MILLER:  Q. It's fair to say that, of course, you  then greater than two days, and then greater than two days, is shows an odds ratio of what, Doctor?  A. The odds ratio of wher chemicals.  And you'll also notice that almost every other — in fact, every other pesticide or herbicide that they investigated also has an odds ratio above 1.  Q. The odds ratio of 2.12 for greater than two days, and then greater than two days, and then greater than two days and odds ratio of where intended also have a statistically significant finding?  A. So meaning that the confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there ar				
Q. I see. Thank you. Yes, ma'am. Yes.  Other scientists here who are authors are at the Centre for Health Evaluation & 23 are at the Centre for Health Evaluation & 23 And for greater than two days, it shows an odds ratio of what, Doctor? A. The odds ratio that's listed in this table is 2.12. But again, that number, you  Page 67  A. That is another affiliation for one of the authors, yes. Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right? A. That is correct. Q. One of the authors is at the department of pathology at the University of Saskatchewan; right? A. Correct. Q. So is it fair to call these people A. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. MR. COPLE: Objection. Vague. A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis				
22 Other scientists here who are authors 23 are at the Centre for Health Evaluation & 24 Outcome Sciences at St. Paul Hospital in 25 Vancouver, British Columbia?  26 Page 67  27 Page 69  28 A. The odds ratio of what, Doctor? 29 A. The odds ratio that's listed in this 29 table is 2.12. But again, that number, you  29 Page 69  20 Page 69  21 A. That is another affiliation for one of 22 the authors, yes. 23 Q. And one of the authors is at the 24 Alberta Cancer Board, the division of 25 epidemiology, right? 26 A. That is correct. 27 Q. One of the authors is at the 28 department of pathology at the University of 29 Saskatchewan; right? 20 A. Correct. 21 Q. So is it fair to call these people 22 scientists? 23 And you'll also notice that almost 24 every other in fact, every other pesticide or 25 herbicide that they investigated also has an 26 odds ratio above 1. 27 One of the authors is at the 38 department of pathology at the University of 49 Saskatchewan; right? 40 A. Correct. 41 Q. So is it fair to call these people 41 Scientists? 42 A. The odds ratio that's listed in this 42 table is 2.12. But again, that number, you  43 know, isn't controlling for other chemicals. 44 Alberta Cancer Board, the division of 45 every other in fact, every other pesticide or 46 herbicide that they investigated also has an 47 odds ratio above 1. 48 the view of the reliance of a potential almost 49 odds ratio above 1. 40 Page 69  21 know, isn't controlling for other chemicals. 41 And you'll also notice that almost 42 every other in fact, every other pesticide or 43 herbicide that they investigated also has an 44 odds ratio above 1. 41 Q. The odds ratio of 2.12 for greater 45 than two days' use of glyphosate, is that a 48 statistically significant finding? 48 statistically significant finding? 49 A. So meaning that the confidence 40 intervals don't overlap 1, yes. But there's 41 really no point in evaluating statistical 41 significance if you don't have confidence in intervals don't overlap 1, yes. But there's 41 really no point	20			*
are at the Centre for Health Evaluation & 23 shows an odds ratio of what, Doctor?  24 Outcome Sciences at St. Paul Hospital in Vancouver, British Columbia?  Page 67  A. The odds ratio that's listed in this table is 2.12. But again, that number, you  Page 69  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  MR. COPLE: Objection. Vague.  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  MR. COPLE: Objection. Argumentative. The intervals where there are limitations in the methodologic design or the statistical analysis				· · · · · · · · · · · · · · · · · · ·
Outcome Sciences at St. Paul Hospital in Vancouver, British Columbia?  Page 67  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  MR. COPLE: Objection. Vague.  A. That is outcome Sciences at St. Paul Hospital in Vancouver, British Columbia?  A. That is another affiliation for one of the authors, yes.  A. That is another affiliation for one of the authors, yes.  A. Alberta Cancer Board, the division of every other pesticide or herbicide that they investigated also has an every other re-in fact, every other pesticide or herbicide that they investigated also has an odds ratio above 1.  Q. The odds ratio above 1.  Q. The odds ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding?  A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  MR. COPLE: Objection. Vague.  A. Again, I don't know any of these people or their background or training.  BY MR. MILLER:  Q. It's fair to say that, of course, you  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis				
Page 67  Page 69  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  MR. COPLE: Objection. Vague.  MR. COPLE: Objection. Vague.  MR. Coples of the authors and of government affiliation.  But, again, I don't know any of these people or the interbackground or training.  Page 69  Rhow, isn't controlling for other chemicals.  And you'll also notice that almost every other pesticide or herbicide that they investigated also has an odds ratio above 1.  Q. The odds ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding?  A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis				
Page 67  A. That is another affiliation for one of the authors, yes.  Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  But, again, I don't know any of these people or the first again, I don't know any of these people or the first again, I don't know any of course, you  Page 69  know, isn't controlling for other chemicals.  And you'll also notice that almost every other pesticide or herbicide that they investigated also has an odds ratio above 1.  Q. The odds ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding?  A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis				
1 A. That is another affiliation for one of 2 the authors, yes. 3 Q. And one of the authors is at the 4 Alberta Cancer Board, the division of 5 epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the 8 department of pathology at the University of 9 Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 their background or training. 2 And you'll also notice that almost 2 herbicide or 4 herbicide that they investigated also has an odds ratio above 1.  4 Q. The odds ratio above 1.  5 Q. The odds ratio above 1.  6 Q. The odds ratio above 1.  8 statistically significant finding?  9 A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical 12 significance if you don't have confidence in the internal validity of the findings.  14 Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	25	Vancouver, British Columbia?	25	table is 2.12. But again, that number, you
the authors, yes.  Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people Scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  But, again, I don't know any of these people or the authors is at the A. No. I think we can find a number of every other in fact, every other pesticide or herbicide that they investigated also has an odds ratio above 1.  Q. The odds ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding? A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis		Page 67		Page 69
the authors, yes.  Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  But, again, I don't know any of these people or the authors is at the A. No. I think we can find a number of every other in fact, every other pesticide or herbicide that they investigated also has an odds ratio above 1.  Q. The odds ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding? A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	1	A. That is another affiliation for one of	1	know, isn't controlling for other chemicals.
Q. And one of the authors is at the Alberta Cancer Board, the division of epidemiology, right?  A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people their background or training.  Q. And one of the authors is at the Alberta Cancer Board, the division of the reinitic that they investigated also has an odds ratio above 1. Q. The odds ratio of 2.12 for greater than two days' use of glyphosate, is that a statistically significant finding? A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings. Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the Q. It's fair to say that, of course, you  methodologic design or the statistical analysis				
4 Alberta Cancer Board, the division of 5 epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the 8 department of pathology at the University of 9 Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 there is a cademic or some kind of course, you 20 Mell, these people where there are limitations in the 20 Q. It's fair to say that, of course, you 20 Mell, these people unethodologic design or the statistical analysis	3		3	
5 epidemiology, right? 6 A. That is correct. 7 Q. One of the authors is at the 8 department of pathology at the University of 9 Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 the roll of the finding. 19 G. Well, these people apparently did have of their background or training. 19 BY MR. MILLER: 19 G. Well, these people apparently did a number of examples where there are limitations in the methodologic design or the statistical analysis	4	-	4	• • • •
A. That is correct.  Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or then two days' use of glyphosate, is that a statistically significant finding? A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the Q. It's fair to say that, of course, you  Mr. MILLER:  Description  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	5		5	
Q. One of the authors is at the department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training.  BY MR. MILLER:  Q. One of the authors is at the Statistically significant finding?  A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	6		6	Q. The odds ratio of 2.12 for greater
department of pathology at the University of Saskatchewan; right?  A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER: Q. It's fair to say that, of course, you  8 statistically significant finding? A. So meaning that the confidence intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings. Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative. A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	7	Q. One of the authors is at the	7	
9 Saskatchewan; right? 10 A. Correct. 11 Q. So is it fair to call these people 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 their background or training. 19 A. So meaning that the confidence 10 intervals don't overlap 1, yes. But there's 11 really no point in evaluating statistical 12 significance if you don't have confidence in the 13 internal validity of the findings. 14 Q. Well, these people apparently did have 15 internal validity in the findings because they 16 published this; right? 17 MR. COPLE: Objection. Argumentative. 18 A. No. I think we can find a number of 19 BY MR. MILLER: 19 examples where there are limitations in the 20 Q. It's fair to say that, of course, you 20 methodologic design or the statistical analysis	0	-	8	
A. Correct.  Q. So is it fair to call these people scientists?  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  But, again, I don't know any of these people or their background or training.  BY MR. MILLER:  Q. So is it fair to call these people sput there intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	0			, ,
11 really no point in evaluating statistical 12 scientists? 13 MR. COPLE: Objection. Vague. 14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 their background or training. 19 BY MR. MILLER: 20 Q. It's fair to say that, of course, you  11 really no point in evaluating statistical 12 significance if you don't have confidence in the 13 internal validity of the findings. 14 Q. Well, these people apparently did have 15 internal validity in the findings because they 16 published this; right? 17 MR. COPLE: Objection. Argumentative. 18 A. No. I think we can find a number of 19 examples where there are limitations in the 20 methodologic design or the statistical analysis		Saskatchewan; right'?	9	A. So meaning that the confidence
scientists?  MR. COPLE: Objection. Vague.  A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.  But, again, I don't know any of these people or their background or training.  BY MR. MILLER:  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	9			
13 MR. COPLE: Objection. Vague.  14 A. Again, they all have, at least the 15 ones that you have referenced here, have either 16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 their background or training. 19 BY MR. MILLER: 20 Q. Well, these people apparently did have 15 internal validity in the findings because they 16 published this; right? 17 MR. COPLE: Objection. Argumentative. 18 A. No. I think we can find a number of 19 examples where there are limitations in the 20 methodologic design or the statistical analysis	9 10	A. Correct.	10	intervals don't overlap 1, yes. But there's
A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER:  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	9 10 11	<ul><li>A. Correct.</li><li>Q. So is it fair to call these people</li></ul>	10 11	intervals don't overlap 1, yes. But there's really no point in evaluating statistical
ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER:  Ones that you have referenced here, have either academic or some kind of government affiliation.  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	9 10 11 12	<ul><li>A. Correct.</li><li>Q. So is it fair to call these people scientists?</li></ul>	10 11 12	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the
16 academic or some kind of government affiliation. 17 But, again, I don't know any of these people or 18 their background or training. 19 BY MR. MILLER: 19 Q. It's fair to say that, of course, you 10 published this; right? 11 MR. COPLE: Objection. Argumentative. 12 A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	9 10 11 12 13	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague.	10 11 12 13	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.
17 But, again, I don't know any of these people or 18 their background or training. 19 BY MR. MILLER: 20 Q. It's fair to say that, of course, you  17 MR. COPLE: Objection. Argumentative. 18 A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis	9 10 11 12 13 14	<ul> <li>A. Correct.</li> <li>Q. So is it fair to call these people scientists?</li> <li>MR. COPLE: Objection. Vague.</li> <li>A. Again, they all have, at least the</li> </ul>	10 11 12 13 14	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have
their background or training.  18 A. No. I think we can find a number of  19 BY MR. MILLER:  19 examples where there are limitations in the  20 Q. It's fair to say that, of course, you  20 methodologic design or the statistical analysis	9 10 11 12 13 14 15	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either	10 11 12 13 14 15	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they
19 BY MR. MILLER: 19 examples where there are limitations in the 20 Q. It's fair to say that, of course, you 20 methodologic design or the statistical analysis	9 10 11 12 13 14 15	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation.	10 11 12 13 14 15 16	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?
Q. It's fair to say that, of course, you 20 methodologic design or the statistical analysis	9 10 11 12 13 14 15 16 17	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or	10 11 12 13 14 15 16 17	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.
	9 10 11 12 13 14 15 16 17	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training.	10 11 12 13 14 15 16 17	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of
or a stady, and alooe papers got published, and	9 10 11 12 13 14 15 16 17 18	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER:	10 11 12 13 14 15 16 17 18	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the
its relationship to glyphosate, true, prior to 22 that's why it's so important to interpret all	9 10 11 12 13 14 15 16 17 18	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER:	10 11 12 13 14 15 16 17 18	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the
being asked to be an expert in this case; right?  23 these estimates in light of the limitations of	9 10 11 12 13 14 15 16 17 18 19 20 21	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER: Q. It's fair to say that, of course, you have never studied non-Hodgkin's lymphoma and	10 11 12 13 14 15 16 17 18 19 20 21	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis of a study, and those papers get published, and
MR. COPLE: Objection. Vague. 24 those studies. It's why putting the numbers,	9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER: Q. It's fair to say that, of course, you have never studied non-Hodgkin's lymphoma and its relationship to glyphosate, true, prior to	10 11 12 13 14 15 16 17 18 19 20 21	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis of a study, and those papers get published, and that's why it's so important to interpret all
25 A. I've never done my own research on 25 just easily putting them into a meta-analysis	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. Correct. Q. So is it fair to call these people scientists? MR. COPLE: Objection. Vague. A. Again, they all have, at least the ones that you have referenced here, have either academic or some kind of government affiliation. But, again, I don't know any of these people or their background or training. BY MR. MILLER: Q. It's fair to say that, of course, you have never studied non-Hodgkin's lymphoma and its relationship to glyphosate, true, prior to being asked to be an expert in this case; right?	10 11 12 13 14 15 16 17 18 19 20 21 22 23	intervals don't overlap 1, yes. But there's really no point in evaluating statistical significance if you don't have confidence in the internal validity of the findings.  Q. Well, these people apparently did have internal validity in the findings because they published this; right?  MR. COPLE: Objection. Argumentative.  A. No. I think we can find a number of examples where there are limitations in the methodologic design or the statistical analysis of a study, and those papers get published, and that's why it's so important to interpret all these estimates in light of the limitations of

	Daga 70		Page 72
-1	Page 70		Page 72
1	doesn't really give us very valuable information	1	committee for the project.
2	about whether an exposure causes disease.	2	Do you see that, ma'am?
3	BY MR. MILLER:	3	A. Yes, I do.
4	Q. Were there limitations in your high	4	Q. What's an advisory committee for a
5	ejaculation study?	5	project? What's it mean to a layperson, I guess
6	A. Yes, there were definitely limitations	6	I'm trying to ask.
7	in the ejaculation frequency study, and we	7	A. Honestly, I'm not really sure. I've
8	disclosed many of those limitations in the	8	not been involved in an advisory committee, so
9	Discussion section.	9	it seems like it would vary from situation to
10	Q. Yet, in spite of those limitations, it	10	situation.
11	provided strong evidence; right?	11	Q. If you turn with me, please, to
12	MR. COPLE: Objection. Argumentative.	12	Page 1160.
13	A. As I said before, that is not how it	13	A. Okay.
14	was characterized. We said the strongest	14	Q. And I'm looking at the printed portion
15	evidence to date in was what that study	15	under the graph, to the left, first full
16	provided. And even in light of some of the	16	paragraph, last sentence. And you can read it
17	limitations, those findings were still	17	to yourself. But these authors, at least in
18	compelling.	18	their opinion, felt they found a dose-response
19	BY MR. MILLER:	19	relationship with glyphosate and non-Hodgkin's
20	Q. In the McDuffie study on Page 1161,	20	lymphoma; true?
21	under the table, if you'd look on the right side	21	MR. COPLE: Objection. The document
22	of the typed information, they explain to us,	22	speaks for itself.
23	"We have included many people in many	23	A. I would need to, you know, reread the
24	occupations as well as home and garden users."	24	authors' Results section to tell you what they
25	Do you see that sentence there?	25	think that they found from the results.
	Page 71		Page 73
1	A. I do.	1	BY MR. MILLER:
2	Q. "These are groups for whom we did not	2	Q. Let me read that sentence and ask you,
3	find extensive validation studies. Their	3	"The exceptions were 2,4-D for which there was
4	inclusion may have biased our dose-response	4	no dose-response relationship, and glyphosate,
5	findings towards the null."	5	which was not significant for exposure but for
6	What does "biased our dose-response	6	
7	findings towards the null" mean malem?		which we demonstrated a dose-response
	findings towards the null" mean, ma'am?	7	which we demonstrated a dose-response relationship."
8	A. So, I mean, generally I think		_
8 9		7	relationship."
	A. So, I mean, generally I think	7 8	relationship."  Did I read that correctly?
9	A. So, I mean, generally I think anything anytime something is biased towards	7 8 9	relationship."  Did I read that correctly?  A. Yes, you did.
9 10	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true	7 8 9 10	relationship." Did I read that correctly? A. Yes, you did. Q. And what is a "dose-response
9 10 11	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association	7 8 9 10 11	relationship." Did I read that correctly? A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in
9 10 11 12	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.	7 8 9 10 11 12	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?
9 10 11 12 13	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please?	7 8 9 10 11 12 13	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of
9 10 11 12 13 14	<ul> <li>A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.</li> <li>Q. Would you turn to Page 1162, please?</li> <li>A. Okay.</li> </ul>	7 8 9 10 11 12 13 14	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the
9 10 11 12 13 14 15	<ul> <li>A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.</li> <li>Q. Would you turn to Page 1162, please?</li> <li>A. Okay.</li> <li>Q. If you would look, please, printed</li> </ul>	7 8 9 10 11 12 13 14	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria.
9 10 11 12 13 14 15	<ul> <li>A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.</li> <li>Q. Would you turn to Page 1162, please?</li> <li>A. Okay.</li> <li>Q. If you would look, please, printed underneath the table, first sentence, first</li> </ul>	7 8 9 10 11 12 13 14 15	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.
9 10 11 12 13 14 15 16 17	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please? A. Okay. Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you	7 8 9 10 11 12 13 14 15 16	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am. A. But the idea is that you would be more
9 10 11 12 13 14 15 16 17	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please?  A. Okay.  Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you a question. "Our results support previous	7 8 9 10 11 12 13 14 15 16 17	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.  A. But the idea is that you would be more likely to see a risk of your outcome among
9 10 11 12 13 14 15 16 17 18	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please?  A. Okay.  Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you a question. "Our results support previous findings of an association between non-Hodgkin's	7 8 9 10 11 12 13 14 15 16 17 18	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.  A. But the idea is that you would be more likely to see a risk of your outcome among people who use or who have more of a
9 10 11 12 13 14 15 16 17 18 19 20	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please? A. Okay. Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you a question. "Our results support previous findings of an association between non-Hodgkin's lymphoma and specific pesticide exposures."	7 8 9 10 11 12 13 14 15 16 17 18 19 20	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.  A. But the idea is that you would be more likely to see a risk of your outcome among people who use or who have more of a particular exposure compared to people who have
9 10 11 12 13 14 15 16 17 18 19 20 21	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please? A. Okay. Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you a question. "Our results support previous findings of an association between non-Hodgkin's lymphoma and specific pesticide exposures."  That was their conclusion; true?	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.  A. But the idea is that you would be more likely to see a risk of your outcome among people who use or who have more of a particular exposure compared to people who have lower levels of exposure. So if you sort of
9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please? A. Okay.  Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you a question. "Our results support previous findings of an association between non-Hodgkin's lymphoma and specific pesticide exposures."  That was their conclusion; true?  A. That's what it says here in this last	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.  A. But the idea is that you would be more likely to see a risk of your outcome among people who use or who have more of a particular exposure compared to people who have lower levels of exposure. So if you sort of look at risk in categories of increasing
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. So, I mean, generally I think anything anytime something is biased towards the null, it would mean that the true association is stronger than the association that you observe.  Q. Would you turn to Page 1162, please? A. Okay. Q. If you would look, please, printed underneath the table, first sentence, first paragraph, I want to read it to you and ask you a question. "Our results support previous findings of an association between non-Hodgkin's lymphoma and specific pesticide exposures."  That was their conclusion; true? A. That's what it says here in this last paragraph.	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	relationship."  Did I read that correctly?  A. Yes, you did. Q. And what is a "dose-response relationship"? What does that concept mean in epidemiology?  A. Sure. So the idea is that and, of course, dose-response is one of the Bradford-Hill criteria. Q. Yes, ma'am.  A. But the idea is that you would be more likely to see a risk of your outcome among people who use or who have more of a particular exposure compared to people who have lower levels of exposure. So if you sort of look at risk in categories of increasing exposure, you would see an increasing risk of

	Page 74		Page 76
1	And let's go, if we can, to our	1	(Whereupon, Rider Exhibit 23-6,
2	Exhibit 23-3, the forest plot that Dr. Chang has	2	Hardell, et al article, Exposure to
3	in her article. And when you look at McDuffie	3	Pesticides as Risk Factor for
4	and the relative risk of 1.2, .833 to 1.74 for	4	Non-Hodgkin's Lymphoma and Hairy Cell
5	the confidence interval, does that accurately	5	Leukemia, was marked for
6	reflect what we see here in the McDuffie	6	identification.)
7	article?	7	BY MR. MILLER:
8	A. That is the odds ratio that's taken	8	Q. And this is the article by
9	from Table 2. It is the odds ratio that's been	9	Dr. Hardell, Eriksson, and Nordstrom?
10	adjusted for only the variables that showed a	10	A. That's correct.
11	statistically significant association with the	11	Q. And it's on the issue of exposure to
12	outcome, so things like measles, mumps, allergy,	12	pesticides as a risk factor for non-Hodgkin's
13	family history, but not adjusted for any other	13	lymphoma; right?
14	pesticides.	14	A. Yes, it is. That is stated in the
15	Q. All right. Let's look at I know	15	title, yes.
16	you disagree with it, but when you read this	16	Q. It's a Pooled Analysis of Two Swedish
17	article, it shows a positive association,	17	Case-control Studies; right?
18	whether you agree with and I know you agree	18	A. That is correct.
19	that it's that you think it's a poor quality	19	Q. And how would you explain to a
20	study, it doesn't show us anything, but at least	20	layperson what a pooled analysis is?
21	from the view of these authors, it's a positive	21	A. So a pooled analysis is when you take
22	association study; right?	22	the original data from more than one study, two
23	MR. COPLE: Objection. Vague, asked	23	or more studies, and you re-analyze that data,
24	and answered.	24	pooling the exposure and the outcome information
25	A. Again, positive association, if what	25	that you have from those two studies.
	Page 75		
	Page 75		Page 77
1	you mean by that is just that they found an odds	1	Q. A recognized and valid concept within
1 2	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in	1 2	Q. A recognized and valid concept within epidemiology; fair?
	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that		<ul><li>Q. A recognized and valid concept within epidemiology; fair?</li><li>A. So it is a way that can be useful for</li></ul>
2	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the	2	<ul><li>Q. A recognized and valid concept within epidemiology; fair?</li><li>A. So it is a way that can be useful for looking at outcomes that are rare. That's one</li></ul>
2 3	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome,	2 3	<ul><li>Q. A recognized and valid concept within epidemiology; fair?</li><li>A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to</li></ul>
2 3 4 5 6	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.	2 3 4 5 6	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.
2 3 4 5 6 7	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in. BY MR. MILLER:	2 3 4 5 6 7	<ul> <li>Q. A recognized and valid concept within epidemiology; fair?</li> <li>A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.</li> <li>Q. Yes, ma'am.</li> </ul>
2 3 4 5 6 7 8	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in. BY MR. MILLER:  Q. At the end of the day, that is what	2 3 4 5 6 7 8	<ul> <li>Q. A recognized and valid concept within epidemiology; fair?</li> <li>A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.</li> <li>Q. Yes, ma'am.</li> <li>Have you ever performed and published</li> </ul>
2 3 4 5 6 7 8	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.	2 3 4 5 6 7 8 9	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?
2 3 4 5 6 7 8 9	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay	2 3 4 5 6 7 8 9	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.
2 3 4 5 6 7 8 9 10	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these	2 3 4 5 6 7 8 9 10	<ul> <li>Q. A recognized and valid concept within epidemiology; fair?</li> <li>A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.</li> <li>Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.</li> <li>Q. Have you ever performed and published</li> </ul>
2 3 4 5 6 7 8 9 10 11	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?	2 3 4 5 6 7 8 9 10 11	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?
2 3 4 5 6 7 8 9 10 11 12	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking	2 3 4 5 6 7 8 9 10 11 12	<ul> <li>Q. A recognized and valid concept within epidemiology; fair?</li> <li>A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.</li> <li>Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.</li> <li>Q. Have you ever performed and published</li> </ul>
2 3 4 5 6 7 8 9 10 11 12 13	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design,	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.
2 3 4 5 6 7 8 9 10 11 12 13 14	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis,	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?
2 3 4 5 6 7 8 9 10 11 12 13 14 15	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give
2 3 4 5 6 7 8 9 10 11 12 13 14	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. A recognized and valid concept within epidemiology; fair? A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes. Q. Yes, ma'am. Have you ever performed and published a pooled analysis? A. I don't believe so, no. Q. Have you ever performed and published a meta-analysis? A. I am a co-author on one meta-analysis, yes. Q. And what is the name of that? A. I would have to look at my CV to give you the exact title. Q. Is it regards in some fashion prostate
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.  Q. Is it regards in some fashion prostate
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.  Q. Let's look at 23-6. This is a Hardell article.  You reviewed that, haven't you, ma'am?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.  Q. Is it regards in some fashion prostate cancer?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.  Q. Let's look at 23-6. This is a Hardell article.  You reviewed that, haven't you, ma'am?  A. Yes, I have.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.  Q. Is it regards in some fashion prostate cancer?  A. Yes, it does relate to prostate cancer as the outcome.  Q. Okay. Let's go back to the Hardell
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.  Q. Let's look at 23-6. This is a Hardell article.  You reviewed that, haven't you, ma'am?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.  Q. Is it regards in some fashion prostate cancer?  A. Yes, it does relate to prostate cancer as the outcome.  Q. Okay. Let's go back to the Hardell study. This is in the journal Leukemia &
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.  Q. Let's look at 23-6. This is a Hardell article.  You reviewed that, haven't you, ma'am?  A. Yes, I have.  Q. Here's a copy for you (handing).	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. A recognized and valid concept within epidemiology; fair?  A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes.  Q. Yes, ma'am.  Have you ever performed and published a pooled analysis?  A. I don't believe so, no.  Q. Have you ever performed and published a meta-analysis?  A. I am a co-author on one meta-analysis, yes.  Q. And what is the name of that?  A. I would have to look at my CV to give you the exact title.  Q. Is it regards in some fashion prostate cancer?  A. Yes, it does relate to prostate cancer as the outcome.  Q. Okay. Let's go back to the Hardell study. This is in the journal Leukemia & Lymphoma. Is that a peer-reviewed journal?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	you mean by that is just that they found an odds ratio above 1, that is certainly reflected in their results. But as I stated before, that tells us absolutely nothing about whether the exposure is causally related to the outcome, which is, I think, what we're interested in.  BY MR. MILLER:  Q. At the end of the day, that is what we're interested in.  So would it be fair to say from a lay perspective you simply disagree with these authors?  A. I think that from, you know, taking into account the quality of the study design, and the limitations in the statistical analysis, one could conclude that the association that they observe is not reflective of a causal association.  Q. Let's look at 23-6. This is a Hardell article.  You reviewed that, haven't you, ma'am?  A. Yes, I have.  Q. Here's a copy for you (handing).	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. A recognized and valid concept within epidemiology; fair? A. So it is a way that can be useful for looking at outcomes that are rare. That's one strength of this method. So it's a way to increase your number of outcomes. Q. Yes, ma'am. Have you ever performed and published a pooled analysis? A. I don't believe so, no. Q. Have you ever performed and published a meta-analysis? A. I am a co-author on one meta-analysis, yes. Q. And what is the name of that? A. I would have to look at my CV to give you the exact title. Q. Is it regards in some fashion prostate cancer? A. Yes, it does relate to prostate cancer as the outcome. Q. Okay. Let's go back to the Hardell study. This is in the journal Leukemia &

	Page 78		Page 80
1	published in this journal.	1	MR. COPLE: Objection.
2	Q. Dr. Hardell, the papers tells us, is	2	BY MR. MILLER:
3	an oncologist?	3	Q. Let's narrow it down.
4	A. Well, I think it just tells us that	4	MR. COPLE: Objection. Vague,
5	he's affiliated with the department of oncology.	5	argumentative.
6	Q. And if you'd look at the Abstract	6	A. I have not written commentaries on
7	section of the first page.	7	glyphosate and NHL prior to being retained in
8	A. Okay.	8	this case, that is correct.
9	Q. He tells us, "Among herbicides,	9	BY MR. MILLER:
10	significant associations were found for	10	Q. Have you since since you've been
11	glyphosate."	11	retained, have you written to the authors of
12	And what's the odds ratio, ma'am?	12	either the McDuffie paper or the Hardell paper
13	A. The odds ratio that they list in the	13	or the journals that published them to voice
14	abstract is 3.04. He also lists associations	14	your criticisms about these papers?
15	with another chemical where they also found a	15	MR. COPLE: Objection. Vague.
16	statistically significant association.	16	A. No, I have not.
17	Q. And is the odds ratio of 3.04	17	BY MR. MILLER:
18	statistically significant in his findings?	18	Q. The authors conclude and if you'll
19	A. Again, just in looking at the	19	please turn with me on Page 1047. I'm on the
20	abstract, the confidence interval that they list	20	bottom left side of the paper, and let me know
21	here does not include the value of 1. It goes	21	when you're there, and I'll wait until you're
22	from 1.08.	22	there.
23	But, again, I don't think it's useful	23	A. Okay.
24	to look at the statistical significance before	24	Q. I'm reading a sentence, about the
25	you're comfortable with the study being free	25	fourth up from the bottom, "In this study,
	Page 79		Page 81
			rage of
1		1	
1 2	from systematic bias, because you can have a	1 2	exposure to glyphosate was a risk factor for
		1	
2	from systematic bias, because you can have a very statistically significant finding that	2	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."
2	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.	2 3	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where
2 3 4	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before	2 3 4	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.
2 3 4 5	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as	2 3 4 5	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom
2 3 4 5 6	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any	2 3 4 5 6	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).
2 3 4 5 6 7	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is	2 3 4 5 6 7	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.
2 3 4 5 6 7 8	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will	2 3 4 5 6 7 8	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.
2 3 4 5 6 7 8	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to	2 3 4 5 6 7 8 9 10	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate
2 3 4 5 6 7 8 9 10 11	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?	2 3 4 5 6 7 8 9 10 11	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."
2 3 4 5 6 7 8 9 10	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters	2 3 4 5 6 7 8 9 10	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these
2 3 4 5 6 7 8 9 10 11 12 13	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how	2 3 4 5 6 7 8 9 10 11 12 13	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?
2 3 4 5 6 7 8 9 10 11 12 13 14 15	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way	2 3 4 5 6 7 8 9 10 11 12 13 14 15	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process.  Once a paper is out there in the literature, it	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process.  Once a paper is out there in the literature, it gives the opportunity for scientists to talk	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process.  Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process.  Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.  Q. And that was my point. You were not	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that they think that glyphosate is causally related
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process. Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.  Q. And that was my point. You were not part of that scientific process or debate prior	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that they think that glyphosate is causally related to NHL.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process. Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.  Q. And that was my point. You were not part of that scientific process or debate prior to being retained as an expert in this case?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that they think that glyphosate is causally related to NHL.  Q. Well, nobody says causally related in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process. Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.  Q. And that was my point. You were not part of that scientific process or debate prior to being retained as an expert in this case?  MR. COPLE: Objection. Vague.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that they think that glyphosate is causally related to NHL.  Q. Well, nobody says causally related in articles in epidemiology, they talk about
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process. Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.  Q. And that was my point. You were not part of that scientific process or debate prior to being retained as an expert in this case?  MR. COPLE: Objection. Vague.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that they think that glyphosate is causally related to NHL.  Q. Well, nobody says causally related in articles in epidemiology, they talk about associations and risk factors usually; true?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	from systematic bias, because you can have a very statistically significant finding that doesn't reflect the truth.  Q. Now, like the McDuffie article before this, at no time prior to you being retained as an expert in this case did you ever write any criticisms of either of these studies; that is true?  A. That is correct.  Q. And at times epidemiologists will write letters to the editor if they want to debate a study, right? That process occurs?  A. I think the process of writing letters to journal in response to article is sort of how some of the scientific debate happens. In a way it's an extension of the peer review process. Once a paper is out there in the literature, it gives the opportunity for scientists to talk about it.  Q. And that was my point. You were not part of that scientific process or debate prior to being retained as an expert in this case?  MR. COPLE: Objection. Vague.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  A. Sorry, I'm struggling to find where you are.  Q. Sure. Down here at the bottom (indicating).  A. Okay. Great.  Q. The gly okay. I'm going to quote it again. "Glyphosate is the herbicide now most" well, strike that.  "In this study, exposure to glyphosate was a risk factor for non-Hodgkin's lymphoma."  You disagree with the finding of these authors in that regard?  A. So, again, the way the authors use the term "risk factor," you know, they could just be indicating by that that what they observed was a statistical association between the exposure and the outcome. They certainly don't say here that they think that glyphosate is causally related to NHL.  Q. Well, nobody says causally related in articles in epidemiology, they talk about

	Page 82		Page 84
1	foundation, vague, argumentative.	1	MR. COPLE: Objection. Asked and
2	BY MR. MILLER:	2	answered.
3	Q. You can answer.	3	A. So I believe that the point estimate
4	A. Why we do the work that we do is we're	4	and confidence interval in the Chang
5	interested in determining what factors are	5	meta-analysis comes from Table 7 of the Hardell
6	causally associated in, in this case, cancer	6	study. So, yes, that is the point estimate and
7	development.	7	confidence interval that they used. But, again,
8	Q. How many articles have you published	8	it that point estimate doesn't reflect as
9	in a peer-reviewed journal?	9	actually the authors Chang and Delzell in the
10	A. I would have to look at my CV to give	10	introduction of this paper point out, the
11	you an exact count, but	11	meta-analysis does not take into account some of
12	Q. An estimate.	12	the severe limitations in the quality of these
13	A in terms of original published	13	studies.
14	article, it's in the 70s, I believe.	14	BY MR. MILLER:
15	Q. In how many of that 70 do you	15	Q. How would you define to a layperson
16	determine cause?	16	what a risk factor is?
17	A. I can say with confidence I have never	17	A. So a risk factor for disease is a
18	said in one of my discussions that I have	18	factor that would increase the probability of
19	established causality.	19	you having that disease, controlling for other
20	Q. And that's because, generally	20	factors.
21	speaking, that's not what we do in these	21	Q. Let's look to a new article here.
22	articles, we talk about association, and then as	22	We're making progress. Let's look at
23	a public policy matter causality will be	23	Dr. De Roos's 2003 article. This will be 23-7.
24	determined or not determined later; isn't that	24	
25	fair?	25	
	Page 83		Dago 95
		1	Page 85
1		1	
1 2	MR. COPLE: Objection. Argumentative,	1 2	(Whereupon, Rider Exhibit 23-7, De
2	MR. COPLE: Objection. Argumentative, vague.	1	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative
	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to	2	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as
2 3 4	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it	2 3	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's
2 3 4 5	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case	2 3 4	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for
2 3 4 5 6	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single	2 3 4 5	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's
2 3 4 5 6 7	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.	2 3 4 5 6 7	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:
2 3 4 5 6 7 8	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:	2 3 4 5 6 7 8	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?
2 3 4 5 6 7	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.	2 3 4 5 6 7	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:
2 3 4 5 6 7 8	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER: Q. Sure. Going back to this study and these	2 3 4 5 6 7 8	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.
2 3 4 5 6 7 8 9	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER: Q. Sure. Going back to this study and these authors, do you agree with these authors that	2 3 4 5 6 7 8 9	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two,
2 3 4 5 6 7 8 9 10	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER: Q. Sure. Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's	2 3 4 5 6 7 8 9 10	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.
2 3 4 5 6 7 8 9 10 11	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?	2 3 4 5 6 7 8 9 10 11	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?
2 3 4 5 6 7 8 9 10 11 12	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER: Q. Sure. Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's	2 3 4 5 6 7 8 9 10 11 12 13	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them
2 3 4 5 6 7 8 9 10 11 12 13	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER: Q. Sure. Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.	2 3 4 5 6 7 8 9 10 11 12 13 14	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors,	2 3 4 5 6 7 8 9 10 11 12 13 14 15	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.  Okay. Do you know any of them?
2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER: Q. Sure. Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered. A. In the way that I use risk factors, no, I do not agree with the authors.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors, no, I do not agree with the authors.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.  Okay. Do you know any of them?  A. I do not know any of the authors, no.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors, no, I do not agree with the authors.  BY MR. MILLER:  Q. Yes, ma'am.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.  Okay. Do you know any of them?  A. I do not know any of the authors, no.  Q. Is this a peer-reviewed journal?  A. The this is the Journal of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors, no, I do not agree with the authors.  BY MR. MILLER:  Q. Yes, ma'am.  Going to Exhibit 23-3, Dr. Chang's	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.  Okay. Do you know any of them?  A. I do not know any of the authors, no.  Q. Is this a peer-reviewed journal?  A. The this is the Journal of Occupational and Environmental Medicine. Again,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors, no, I do not agree with the authors.  BY MR. MILLER:  Q. Yes, ma'am.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.  Okay. Do you know any of them?  A. I do not know any of the authors, no.  Q. Is this a peer-reviewed journal?  A. The this is the Journal of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors, no, I do not agree with the authors.  BY MR. MILLER:  Q. Yes, ma'am.  Going to Exhibit 23-3, Dr. Chang's forest plot for these authors, Dr. Hardell, they show a relative risk of 1.85 and a confidence	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER: Q. You reviewed this article before? A. This is yes, I have reviewed this article before, yes. Q. And it's written by one, two, three, four, five, six seven, may I call them scientists? A. I would just call them authors. Q. Authors. Okay. Do you know any of them? A. I do not know any of the authors, no. Q. Is this a peer-reviewed journal? A. The this is the Journal of Occupational and Environmental Medicine. Again, I've never published in this journal, so I can't be certain.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: Objection. Argumentative, vague.  A. I think that it is important to consider sort of the body of evidence. So it would be unusual I can't think of a case where causality would be established in a single study.  BY MR. MILLER:  Q. Sure.  Going back to this study and these authors, do you agree with these authors that glyphosate is a risk factor for non-Hodgkin's lymphoma, or not?  MR. COPLE: Objection. Asked and answered.  A. In the way that I use risk factors, no, I do not agree with the authors.  BY MR. MILLER:  Q. Yes, ma'am.  Going to Exhibit 23-3, Dr. Chang's forest plot for these authors, Dr. Hardell, they	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	(Whereupon, Rider Exhibit 23-7, De Roos, et al article, Integrative assessment of multiple pesticides as risk factors for non-Hodgkin's lymphoma among men, was marked for identification.)  BY MR. MILLER:  Q. You reviewed this article before?  A. This is yes, I have reviewed this article before, yes.  Q. And it's written by one, two, three, four, five, six seven, may I call them scientists?  A. I would just call them authors.  Q. Authors.  Okay. Do you know any of them?  A. I do not know any of the authors, no.  Q. Is this a peer-reviewed journal?  A. The this is the Journal of Occupational and Environmental Medicine. Again, I've never published in this journal, so I can't

	Page 86		Page 88
1	A. That's what's stated in the title,	1	study had good internal validity, in that case
2	yes.	2	you would interpret an odds ratio of 1.6 as
3	Q. And if you'd please turn with me to	3	having 60 percent increase in the odds of that
4	Table 3.	4	outcome.
5	A. Okay.	5	Q. As an author, as a scientist, you
6	Q. And in this article in Table 3, what	6	wouldn't publish a data that you didn't have
7	these authors are looking at is the "Effect	7	confidence in; right?
8	estimates for use of specific pesticides and	8	MR. COPLE: Objection. Vague,
9	non-Hodgkin's lymphoma incidence, adjusting for	9	argumentative.
10	use of other pesticides"; right?	10	A. I agree that I would as an
11	A. So I believe the they present	11	epidemiologist, part of my process is to try and
12	results here that are both unadjusted and	12	determine all of the explanations for my
13	adjusted for other pesticides, yes.	13	findings, other than the fact that there's a
14	Q. And they adjust under two	14	causal association between the exposure and the
15	methodologies, logistic regression and	15	outcome.
16	hierarchal regression; right?	16	BY MR. MILLER:
17	A. Logistic regression is not controlling	17	Q. And one of your criticisms about this
18	for other pesticides.	18	study is you think that there's confounding with
19	Q. The logistic regression odds ratio for	19	other pesticide use; right? That's one of your
20	glyphosate in Table 3 indicates an odds ratio of	20	criticisms?
21	2.1?	21	A. I think that the results here, I'm
22	A. Here it is. The unadjusted logistic	22	seeing the odds ratio decrease from 2.1 to 1.6,
23	regression analysis, yes, finds an odds ratio of	23	is consistent with there being confounding from
24	2.1.	24	other pesticides, yes.
25	Q. Statistically significant?	25	Q. Let's go to Page 7 of 9.
	Page 87		Page 89
1	Page 87  A. Again, if you want to look at that,	1	Page 89 A. Okay.
1 2		1 2	
	A. Again, if you want to look at that,		A. Okay.
2	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if	2	<ul><li>A. Okay.</li><li>Q. And if you look at, please and I'm</li></ul>
2	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate	2 3	<ul><li>A. Okay.</li><li>Q. And if you look at, please and I'm on the left side about halfway down.</li></ul>
2 3 4	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.	2 3 4	<ul><li>A. Okay.</li><li>Q. And if you look at, please and I'm on the left side about halfway down.</li><li>A. Okay.</li></ul>
2 3 4 5	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it.	2 3 4 5	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in</li> </ul>
2 3 4 5 6	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these	2 3 4 5 6	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple</li> </ul>
2 3 4 5 6 7	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?	2 3 4 5 6 7	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides."</li> </ul>
2 3 4 5 6 7 8	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I	2 3 4 5 6 7 8	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of</li> </ul>
2 3 4 5 6 7 8 9	<ul> <li>A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.</li> <li>Q. I understand you don't agree with it.</li> <li>But is it statistically significant per these authors?</li> <li>A. Well, I MR. COPLE: Objection. Asked and</li> </ul>	2 3 4 5 6 7 8	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides."</li> </ul>
2 3 4 5 6 7 8 9	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't	2 3 4 5 6 7 8 9	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides."</li> <li>Do you see that?</li> </ul>
2 3 4 5 6 7 8 9 10	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it	2 3 4 5 6 7 8 9 10	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides."  Do you see that?</li> <li>A. I do see that sentence, yes.</li> </ul>
2 3 4 5 6 7 8 9 10 11	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't	2 3 4 5 6 7 8 9 10 11	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides."  Do you see that?</li> <li>A. I do see that sentence, yes.</li> <li>Q. So fair to say that the authors</li> </ul>
2 3 4 5 6 7 8 9 10 11 12 13	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits	2 3 4 5 6 7 8 9 10 11 12 13	<ul> <li>A. Okay.</li> <li>Q. And if you look at, please and I'm on the left side about halfway down.</li> <li>A. Okay.</li> <li>Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides."  Do you see that?</li> <li>A. I do see that sentence, yes.</li> <li>Q. So fair to say that the authors disagree with you that there was substantial</li> </ul>
2 3 4 5 6 7 8 9 10 11 12 13 14	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect.	2 3 4 5 6 7 8 9 10 11 12 13	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true?
2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect. BY MR. MILLER:  Q. And adjusted for hierarchal	2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect. BY MR. MILLER:  Q. And adjusted for hierarchal regression, the odds ratio is 1.6; right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger context of this discussion, which I don't completely recall. But what they're saying is that there were few instances of substantial
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect. BY MR. MILLER:  Q. And adjusted for hierarchal regression, the odds ratio is 1.6; right?  A. The odds ratio is reduced to 1.6 after	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger context of this discussion, which I don't completely recall. But what they're saying is
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect. BY MR. MILLER:  Q. And adjusted for hierarchal regression, the odds ratio is 1.6; right?  A. The odds ratio is reduced to 1.6 after their approach for controlling for other	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger context of this discussion, which I don't completely recall. But what they're saying is that there were few instances of substantial confounding of pesticide effects by other pesticides. We don't know what chemicals
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect.  BY MR. MILLER:  Q. And adjusted for hierarchal regression, the odds ratio is 1.6; right?  A. The odds ratio is reduced to 1.6 after their approach for controlling for other pesticides, which was hierarchal logistic	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger context of this discussion, which I don't completely recall. But what they're saying is that there were few instances of substantial confounding of pesticide effects by other
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect.  BY MR. MILLER:  Q. And adjusted for hierarchal regression, the odds ratio is 1.6; right?  A. The odds ratio is reduced to 1.6 after their approach for controlling for other pesticides, which was hierarchal logistic regression, yes.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger context of this discussion, which I don't completely recall. But what they're saying is that there were few instances of substantial confounding of pesticide effects by other pesticides. We don't know what chemicals they're referring to, or certainly what they define as substantial.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Again, if you want to look at that, that's fine, but it doesn't tell you anything if you don't have confidence in that point estimate because of issues of internal validity.  Q. I understand you don't agree with it. But is it statistically significant per these authors?  A. Well, I  MR. COPLE: Objection. Asked and answered.  A. Actually I don't agree with it because, again, statistical significance doesn't mean anything if you put tight confidence limits around an estimate that's incorrect.  BY MR. MILLER:  Q. And adjusted for hierarchal regression, the odds ratio is 1.6; right?  A. The odds ratio is reduced to 1.6 after their approach for controlling for other pesticides, which was hierarchal logistic regression, yes.  Q. And that's a 60 percent increase;	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Okay. Q. And if you look at, please and I'm on the left side about halfway down. A. Okay. Q. I'll read you what the authors say in that regard. "Adjustment for multiple pesticides suggested that there were few instances of substantial confounding of pesticide effects by other pesticides." Do you see that? A. I do see that sentence, yes. Q. So fair to say that the authors disagree with you that there was substantial confounding by other pesticides; true? A. So, again, I can't really tell you what the authors mean without having the larger context of this discussion, which I don't completely recall. But what they're saying is that there were few instances of substantial confounding of pesticide effects by other pesticides. We don't know what chemicals they're referring to, or certainly what they

	Page 90		Page 92
1	A. I would have to just take a moment	1	this study; right?
2	again to refresh myself	2	A. I have not submitted letters to the
3	Q. Sure. Go ahead.	3	editor, no.
4	A with the methods.	4	Q. And if you go back to Dr. Chang's
5	(Witness reviewing document.)	5	forest plot, you'll see that De Roos '03 is on
6	A. So I think that, you know, whenever	6	the plot. And is it accurately represented?
7	we're conducting a retrospective case control	7	MR. COPLE: Objection. Asked and
8	study, you know, we have to keep in mind that	8	answered.
9	the cases who are sort of potentially searching	9	A. So the point estimate and confidence
10	for a cause of their cancer might provide a	10	interval in the Chang and Delzell systematic
11	different quality of exposure reporting than the	11	review and meta-analysis comes from the
12	people without cancer, the controls. So I think	12	hierarchal logistic regression results for
13	that, you know, in any retrospective case	13	glyphosate in the Hardell paper.
14	control study we'd be concerned about that,	14	BY MR. MILLER:
15	even you know, especially since we're looking	15	Q. Okay. Let's move on to
16	for exposures, you know, a relatively long time	16	A. Sorry, the De Roos paper. I
17	ago.	17	apologize.
18	And then on top of that there is a	18	Q. Yes. Under De Roos '03?
19	potential issue with proxy respondents, so that	19	A. Exactly.
20	the quality of information that you might get	20	Q. Yes, thank you. All right. We'll
21	would vary between the cases who reported their	21	move on.
22	exposure directly and the cases for whom next of	22	Let's talk about Eriksson '08.
23	kin was used to gather that exposure	23	
24	information.	24	
25	Q. The authors considered recall bias and	25	
	Page 91		Page 93
1	selection bias and concluded they did not have a	1	(Whereupon, Rider Exhibit 23-8,
2	problem with it in this article; true?	2	Eriksson, et al article, Pesticide
3	A. I would have to reread their	3	exposure as risk factor for
4	discussion.	4	non-Hodgkin lymphoma including
5	Q. If you'd look at Page 8, and halfway	5	histopathological subgroup analysis,
6	down on the left, I'll read you a sentence. It	6	was marked for identification.)
7	says let me know when you have it. Okay?	7	BY MR. MILLER:
8	A. Okay.	8	Q. You've reviewed this paper?
9	Q. "Second, the fact that there were few	9	A. I have, yes.
10	associations suggests that the positive results	10	Q. And we can agree the International
11	we observed are not likely to be due to a	11	Journal of Cancer is a peer-reviewed journal?
12	systematic recall bias for pesticide exposures,	12	A. It is, yes.
13	or selection bias for the subgroup included in	13	Q. Have you published in that journal?
14	the analyses of multiple pesticides."	14	A. I have, yes.
15	So they considered it and felt it	15	Q. Respected journal?
16	wasn't a problem; true?	16	A. Yes.
17	A. I agree that the authors came to the	17	Q. Have you been a peer reviewer for that
18	conclusion that those weren't major issues, but	18	journal?
19	I would sort of I would disagree with	19	A. Yes, I have.
20	Q. I understand.	20	Q. How many peer reviewers do they
21	A the impact that that could have on	21	generally have review a paper?
22	the findings.	22	A. Honestly, I couldn't recall. It's
		1	been awhile.
	O And just a follow up question	1 43	
23	Q. And just a follow-up question.  Like the last article, you did not	23 24	
	Q. And just a follow-up question.  Like the last article, you did not submit any letters to the editor criticizing	24 25	Q. And so there's one, two, three four authors to this paper that's in the

	Page 94		Page 96
1	peer-reviewed journal, International Journal of	1	to control for them.
2	Cancer; true?	2	Q. And I repeat this question. You did
3	A. There are four authors listed, yes.	3	not write any letter to the editor to criticize
4	Q. And this is a paper on the issue of	4	the Eriksson paper; right?
5	pesticide exposure as a risk factor for	5	A. I have never written a letter, no, to
6	non-Hodgkin's lymphoma; true?	6	criticize the Eriksson paper.
7	A. Correct.	7	Q. Before I forget, have you and
8	Q. And generally we'll get to some	8	Dr. Mucci e-mailed each other about your
9	quotes in a minute. But generally speaking,	9	respective work here as expert witnesses for
10	they found some positive associations for	10	Monsanto?
11	glyphosate and non-Hodgkin's lymphoma; true?	11	A. No, we have not.
12	MR. COPLE: Objection. Lacks	12	Q. Have you spoken to each other about
13	foundation.	13	it?
14	BY MR. MILLER:	14	A. We have not we are both aware that
15	Q. And I know you don't agree with them	15	we are being retained by Hollingsworth as expert
16	that these findings are significant, but that's	16	witnesses, but we have not spoken about the
17	what they found?	17	case, no.
18	MR. COPLE: Objection. Lacks	18	Q. Who did they retain first, you or
19	foundation, vague.	19	Dr. Mucci?
20	A. The associations that they found, yes,	20	A. I have no idea.
21	were above 1. But, again, I think that those	21	Q. Did you first get contacted by
22	results can be explained by systematic bias.	22	Dr. Mucci about this, or by the lawyers of
23	BY MR. MILLER:	23	Monsanto?
24	Q. Yes, ma'am.	24	A. It was attorneys at Hollingsworth LLP
25	Let's read a couple of quotes and see	25	that contacted me.
	2003 rema in compre or quotes until see		
	Page 95		Page 97
1	Page 95 if this is what the authors say. The Eriksson	1	Page 97  Q. Did any other epidemiologists tell you
1 2		1 2	
	if this is what the authors say. The Eriksson		Q. Did any other epidemiologists tell you
2	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section,	2	Q. Did any other epidemiologists tell you that they were going to be calling?
2	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the	2 3	<ul><li>Q. Did any other epidemiologists tell you that they were going to be calling?</li><li>A. No. It was the attorneys at</li></ul>
2 3 4	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?	2 3 4	<ul><li>Q. Did any other epidemiologists tell you that they were going to be calling?</li><li>A. No. It was the attorneys at Hollingsworth that contacted me.</li></ul>
2 3 4 5	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the	2 3 4 5	<ul> <li>Q. Did any other epidemiologists tell you that they were going to be calling?</li> <li>A. No. It was the attorneys at Hollingsworth that contacted me.</li> <li>Q. These authors thought about the issue</li> </ul>
2 3 4 5 6	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a	2 3 4 5 6	<ul> <li>Q. Did any other epidemiologists tell you that they were going to be calling?</li> <li>A. No. It was the attorneys at Hollingsworth that contacted me.</li> <li>Q. These authors thought about the issue of misclassification; right?</li> </ul>
2 3 4 5 6 7	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the	2 3 4 5 6 7	<ul> <li>Q. Did any other epidemiologists tell you that they were going to be calling?</li> <li>A. No. It was the attorneys at Hollingsworth that contacted me.</li> <li>Q. These authors thought about the issue of misclassification; right?</li> <li>MR. COPLE: Objection. Vague.</li> </ul>
2 3 4 5 6 7 8	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency	2 3 4 5 6 7 8	<ul> <li>Q. Did any other epidemiologists tell you that they were going to be calling?</li> <li>A. No. It was the attorneys at Hollingsworth that contacted me.</li> <li>Q. These authors thought about the issue of misclassification; right?</li> <li>MR. COPLE: Objection. Vague.</li> <li>A. Can you tell me what you mean by that?</li> </ul>
2 3 4 5 6 7 8 9	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and	2 3 4 5 6 7 8	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?
2 3 4 5 6 7 8 9	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency	2 3 4 5 6 7 8 9	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:
2 3 4 5 6 7 8 9 10	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a	2 3 4 5 6 7 8 9 10	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is
2 3 4 5 6 7 8 9 10 11	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the	2 3 4 5 6 7 8 9 10 11 12 13	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and
2 3 4 5 6 7 8 9 10 11 12 13	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a	2 3 4 5 6 7 8 9 10 11 12	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?
2 3 4 5 6 7 8 9 10 11 12 13 14	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the	2 3 4 5 6 7 8 9 10 11 12 13	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and
2 3 4 5 6 7 8 9 10 11 12 13 14 15	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification? BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification? BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and non-differential misclassification. I can
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to see what the odds ratio would be if they control	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and non-differential misclassification. I can
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to see what the odds ratio would be if they control for the other pesticides?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and non-differential misclassification. I can explain what that means, if you'd like.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to see what the odds ratio would be if they control for the other pesticides?  A. It's not possible to do that with the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and non-differential misclassification. I can explain what that means, if you'd like.  Q. Yes, in a bit we will, but I think I'm
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to see what the odds ratio would be if they control for the other pesticides?  A. It's not possible to do that with the information that's provided in the paper. And, also, controlling for other pesticides requires that you are collecting the information on those	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and non-differential misclassification. I can explain what that means, if you'd like.  Q. Yes, in a bit we will, but I think I'm fairly familiar with it.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	if this is what the authors say. The Eriksson paper, and I'm looking at the abstract section, they say, "Exposure to glyphosate gave an odds ratio 2.02." Statistically significant; true?  A. That is what it says, that the glyphosate gave OR 2.02, and then they list a confidence interval that does not include the value of 1.  Q. Yes.  And for greater than ten-year latency period, the odds ratio was 2.26, and statistically significant; right?  A. Again, 2.26, and then they list a confidence interval that does not include the value of 1, that is correct. But, again, those results, especially for the ten-year latency period, aren't controlling for other chemicals.  Q. And have you done any calculations to see what the odds ratio would be if they control for the other pesticides?  A. It's not possible to do that with the information that's provided in the paper. And, also, controlling for other pesticides requires	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Did any other epidemiologists tell you that they were going to be calling?  A. No. It was the attorneys at Hollingsworth that contacted me.  Q. These authors thought about the issue of misclassification; right?  MR. COPLE: Objection. Vague.  A. Can you tell me what you mean by that? What type of misclassification?  BY MR. MILLER:  Q. Let's hit it at 30,000 feet. What is misclassification in the context of epidemiology?  A. Well, there's both exposure and disease misclassification, so those are sort of two separate misclassification issues. And then within both exposure and disease misclassification you can have differential and non-differential misclassification. I can explain what that means, if you'd like.  Q. Yes, in a bit we will, but I think I'm fairly familiar with it.  But here they talked about exposure

	D 00	1	D 100
	Page 98		Page 100
1	weaken their results; right?	1	Q. And in that table they say if you've
2	MR. COPLE: Objection. Lacks	2	been exposed to greater than ten days of
3	foundation.	3	glyphosate, your odds ratio is 2.36; right?
4	A. I would need to reread the paper to	4	A. So this is an analysis where they
5	determine what the authors how they	5	attempted to take into account the duration of
6	interpreted that. I don't recall.	6	exposure using this relatively low category of
7	BY MR. MILLER:	7	ten total days. And, again, this analysis is
8	Q. Yes, ma'am.	8	unadjusted for other pesticides. And there they
9	Let's turn to Page 1660, in their	9	find an odds ratio of 2.36, yes.
10	Discussion section there on the right side.	10	Q. 2.36 means it would be over a doubling
11	A. Okay.	11	of the risk; right?
12	Q. Yes. I'm reading about the third	12	A. Only if you, again, believe in the
13	paragraph down, halfway through the paragraph,	13	internal validity of this study, and that that
14	"Exposure to pesticides may be difficult to	14	result isn't confounded by the use of other
15	assess, and some misclassification regarding	15	pesticides or other risk factors for NHL.
16	quantity of exposure has probably occurred, but	16	Q. I understand the caution.
17	such misclassification would most probably be	17	But just to assume hypothetically in
18	nondependent of case/control status, and	18	any study, if it was about smoking or lung
19	therefore only weaken any true risk."	19	cancer, an odds ratio of 2.36 means we have a
20	That's true, isn't it?	20	doubling of the risk; right?
21	A. I would disagree with that statement.	21	MR. COPLE: Objection. Asked and
22	In a case control study where you're evaluating	22	answered, incomplete hypothetical.
23	exposure after disease has occurred, it's a very	23	A. Again, it's easy to find an
24	strong assumption to assume that the level of	24	association between variables, so an odds ratio
25	misclassification you have in the cases would be	25	of 2.36 is consistent with that outcome being
	Page 99		Page 101
1	equivalent to that that's in the controls.	1	twice as common among that exposure being
2	Q. What evidence do you have that they're	2	twice as common among people with the outcome,
3	not correct on that?	3	but it doesn't tell you what the causal
4	A. So I mean, first of all, all of my	4	relationship is.
5	training as an epidemiologist where we're	5	BY MR. MILLER:
6	cautioned to be concerned about the quality of	6	Q. Dr. Rider, can you point to me a study
7	exposure reporting in retrospective case	7	done on the issue of glyphosate and
8	controlled studies. It's sort of a fundamental	8	non-Hodgkin's lymphoma where the results
9	concept in case control design. But, you know,	9	indicated people who were exposed to glyphosate
10	when it's one of those issues that, you know,	10	had less non-Hodgkin's lymphoma than people who
11	just because you can't, you know, show that it's	11	were?
12	happening, you still need to interpret your	12	A. Well, I think, no, I can't point to a
13	findings in consideration of the impact that it	13	study where I could confidently tell you that
14	would have on those results. And yeah.	14	glyphosate exposure was a protective factor for
15	Q. If you'd please turn to Page 1659.	15	non-Hodgkin's lymphoma, if that's what you're
16	A. Okay.	16	saying. If you're asking me if there are
17	Q. On Table 2 in this peer-reviewed	17	studies where we've observed relative risk
18	article by Dr. Eriksson and three other	18	estimates that are below 1, I can certainly
19	scientists from International Journal of Cancer,	19	point you to those examples.
20	they have a table about exposure to various	20	Q. Please do.
21	herbicides; true?	21	A. So, for instance, if we look at the
22	A. Yes, they do.	22	dose-response analyses in the Agricultural
23	Q. And one of those herbicides is	23	Health Study.
	glyphosate; right?	24	Q. Any others besides the Agricultural
24	gryphosaic, right:		
24 25	A. Yes, it is listed in the table.	25	Health Study? Because we're going to look at

	Page 102		Page 104
1	that, as you might imagine, in more detail	1	Q. These authors did a univariate
2	later.	2	analysis as well as a multivariate analysis;
3	A. That is the first one that comes to	3	right?
4	mind.	4	A. I don't know that I'd describe it as
5	Q. Do any others come to mind?	5	univariate. I believe they adjusted for the
6	A. I would have to review the results of	6	matching factors in the study, which is
7	the pooling project data, but there could be an	7	appropriate, but they did do sort of a minimally
8	example in there as well.	8	adjusted analysis and then an analysis adjusted
9	Q. That's the NAPP study?	9	for additional variables, yes.
10	A. Correct.	10	Q. And there was still an increased risk
11	Q. Any others?	11	under the multivariate analysis; true?
12	A. That's all I can think of off the top	12	A. What results are you referring to?
13	of my head. But, again, it would be helpful to	13	Q. Yes, ma'am. 1661, Table 7.
14	either look at my report or to see the original	14	A. Okay. I see it there. So the results
15	studies to say for certain.	15	of the multivariate analysis, they found an odds
16	Q. Let's go back to this peer-reviewed	16	ratio of 1.51, and that was substantially
17	article by Eriksson and his three colleagues,	17	reduced from the odds ratio that was not
18	and we're still on Page 1659.	18	controlling for other factors.
19	These scientists also indicate on	19	Q. For the univariate risk they saw a
20	Table 3 an odds ratio for B cell lymphoma;	20	doubling of the risk, and for the multivariate
21	right? Do you see that, ma'am?	21	risk they saw a 50 percent increased risk;
22	A. I do, yes.	22	right?
23	Q. And, of course, B cell lymphoma is a	23	A. Again, I think that's not an accurate
24	form of non-Hodgkin's lymphoma; right?	24	way to portray the findings because it makes it
25	A. That is correct, yes.	25	sound like you're making a causal interpretation
	Page 103		Daga 10E
	1436 100		Page 105
1	Q. And they show an odds ratio for	1	of the findings, which I don't think is
1 2		1 2	
	Q. And they show an odds ratio for	1	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make
2	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?	2	of the findings, which I don't think is appropriate.
2	<ul><li>Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?</li><li>A. The odds ratio listed there is 1.87.</li></ul>	2 3	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make
2 3 4	<ul><li>Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?</li><li>A. The odds ratio listed there is 1.87.</li><li>Q. And that is statistically significant?</li></ul>	2 3 4	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether
2 3 4 5	<ul> <li>Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?</li> <li>A. The odds ratio listed there is 1.87.</li> <li>Q. And that is statistically significant?</li> <li>A. Again, I don't really think it's</li> </ul>	2 3 4 5	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or
2 3 4 5 6	<ul> <li>Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?</li> <li>A. The odds ratio listed there is 1.87.</li> <li>Q. And that is statistically significant?</li> <li>A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very</li> </ul>	2 3 4 5 6	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether
2 3 4 5 6 7 8 9	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate	2 3 4 5 6 7	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds
2 3 4 5 6 7 8 9	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87.  Q. And that is statistically significant?  A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the	2 3 4 5 6 7 8 9	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.
2 3 4 5 6 7 8 9 10	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87.  Q. And that is statistically significant?  A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.	2 3 4 5 6 7 8 9 10	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods
2 3 4 5 6 7 8 9 10 11	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87.  Q. And that is statistically significant?  A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your	2 3 4 5 6 7 8 9 10 11	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the
2 3 4 5 6 7 8 9 10 11 12 13	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically	2 3 4 5 6 7 8 9 10 11 12	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?	2 3 4 5 6 7 8 9 10 11 12 13	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and	2 3 4 5 6 7 8 9 10 11 12 13 14	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87.  Q. And that is statistically significant?  A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically significant. It goes from .998 to 3.51.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart and look to see if Eriksson is accurately
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically significant. It goes from .998 to 3.51.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart and look to see if Eriksson is accurately portrayed there by Dr. Chang?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically significant. It goes from .998 to 3.51. BY MR. MILLER: Q. So the p-value would be what in that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart and look to see if Eriksson is accurately portrayed there by Dr. Chang?  MR. COPLE: Objection. Asked and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically significant. It goes from .998 to 3.51.  BY MR. MILLER:  Q. So the p-value would be what in that instance?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart and look to see if Eriksson is accurately portrayed there by Dr. Chang?  MR. COPLE: Objection. Asked and answered.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically significant. It goes from .998 to 3.51.  BY MR. MILLER:  Q. So the p-value would be what in that instance?  A. I can't do that math in my head. I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart and look to see if Eriksson is accurately portrayed there by Dr. Chang?  MR. COPLE: Objection. Asked and answered.  A. So the Eriksson results that are
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. And they show an odds ratio for glyphosate for B cell lymphoma of what, ma'am?  A. The odds ratio listed there is 1.87. Q. And that is statistically significant? A. Again, I don't really think it's meaningful to talk about that, because I don't have confidence in the point estimate. So, again, as I said before, you can have a very precise confidence interval around an estimate that's inaccurate and not reflective of the truth.  Q. Yes. And I understand that is your strongly held belief. But it is statistically significant?  MR. COPLE: Objection. Asked and answered.  A. Again, if you're asking me does that confidence interval include the value of 1, actually it does. It's not statistically significant. It goes from .998 to 3.51.  BY MR. MILLER:  Q. So the p-value would be what in that instance?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	of the findings, which I don't think is appropriate.  Q. Setting aside, I'm not trying to make a causal association on one study, but that the numbers mean 50 percent more likely or 100 percent more likely, and I'm whether they're valid or not, but isn't that what odds ratios mean?  MR. COPLE: Objection. Asked and answered.  A. If you had confidence in the methods of the study and the internal validities of the study and you found an odds ratio of 1.5, only in that case would you say there was a 50 percent increase in the odds of the outcome. BY MR. MILLER:  Q. Yes. Okay. All right. So last question on this peer-reviewed study, and that is, could you please take Dr. Chang's 23-3 chart and look to see if Eriksson is accurately portrayed there by Dr. Chang?  MR. COPLE: Objection. Asked and answered.

Page 106 Page 108 1 review and meta-analysis come from this Table 7, 1 table, but the asterisk doesn't tell us which 2 the multivariate findings. 2 analysis they're referring to when they say, 3 MR. MILLER: All right. I've been 3 "Each estimate is adjusted for use of other 4 4 advised we have to take a break to change tapes. pesticides." 5 5 A. Okay. And then when you go to the Methods 6 THE VIDEOGRAPHER: Going off the 6 section, they do not discuss controlling for other pesticides in their logistic regression 7 7 record. The time is 11:08. 8 8 analysis. (Whereupon, a recess was taken.) 9 THE VIDEOGRAPHER: Back on the record. 9 BY MR. MILLER: 10 10 Q. Do they say in the Methods section we The time is 1:24. 11 did not control for other pesticides? 11 BY MR. MILLER: A. I would need to go back to the Methods 12 12 Q. All right, Doctor, back to work. 13 13 to tell you exactly what they say. Before we move -- we were going (Witness reviewing document.) 14 14 through the studies, the case control studies, I 15 want to go back to a De Roos '03. And we talked 15 A. So if you look in the middle of the about the logistic regression and the hierarchal 16 Statistical analyses paragraph on Page 2 of 9. 16 Q. Where are you now? 17 -- how do you say that? 17 18 A. In about the middle of the Statistical A. Hierarchical. 18 19 Q. Hierarchical. I'll forget that. 19 analyses paragraph on Page 2 of 9 --20 Q. Yes. 20 But I thought you mentioned logistic A. -- they talk about how, "We employed regression was not -- had not been adjusted? 21 21 22 two approaches to our analyses: standard 22 A. That's right. The authors don't 23 23 indicate that the logistic regression analysis logistic regression (maximum likelihood 24 estimation) and hierarchical regression, 24 has been adjusted for other pesticides. 25 calculating odds ratios to estimate the relative Q. Let's go back and look at Table 3. 25 Page 107 Page 109 risk associated with each pesticide. All models 1 Mr. Traverse wanted me to point this out. If 2 you'll look and see where it says "Logistic 2 included variables for age and indicator 3 regression." Do you see on Table 3? 3 variables for the study site. Other factors 4 A. I do. 4 known or suspected to be associated with NHL, 5 5 Q. And then the asterisk underneath Table including first degree relative with 6 б 3 it says, "Each estimate is adjusted for use of hematopoietic cancer, education, and smoking, 7 7 all other pesticides listed in Table 3." were evaluated and found not to be important 8 Do you see that? 8 confounders of the associations between NHL and 9 A. I do see that. But when you read the 9 pesticides. The standard logistic regression 10 methods, it appears as though it is the 10 models did not assume any prior distribution of 11 pesticides effects, in contrast to the 11 hierarchical logistic regression that is 12 adjusted for other pesticides, while the 12 hierarchical regression modeling." 13 13 So there in that paragraph they do not logistic regression is not. talk about how the logistic regression models 14 Q. So you agree that at least in this 14 15 15 table where it says, "Effect estimates for use included other pesticides as potential 16 of specific pesticides and non-Hodgkin's 16 confounders, but then they go through a whole 17 lymphoma incidence, adjusting for use of other 17 column of methods describing their approach, 18 pesticides," asterisk, and then it goes to the 18 hierarchical regression that controls for other 19 19 asterisk, it says, "Each estimate is adjusted 20 for use of other pesticides." 20 Q. Have we already asked, do you agree 21 21 that Eriksson on the Chang chart is correctly MR. COPLE: Objection. Objection, 22 asked and answered. 22 portrayed? And I'm sorry to bounce around on 23 A. So I agree with you that there is an 23 you, but I'm trying to move back now. 24 asterisk in the title of the table that is 24 A. Sorry. So now we're going back to --25 Q. Back to the Eriksson. 25 referred to as a footnote at the bottom of that

	Page 110		Page 112
1	A Eriksson?	1	Q. And who are they?
2	Q. Yes, ma'am. And asking if I think	2	A. Paul Brennan and Paolo Boffetta.
3	I've already asked. If I have, I apologize. I	3	Q. Are they well-respected in their
4	want to make sure that the Chang chart forest	4	field?
5	plot Eriksson is accurately represented on that?	5	A. Yes. I believe they are
6	A. So we did go over that the odds ratio	6	well-respected epidemiologists, yes.
7	that's presented here in the Chang and Delzell	7	Q. Paolo Boffetta used to be the head of
8	systematic review and meta-analysis does come	8	IARC?
9	from Table 7 of the Eriksson paper. But as I	9	MR. COPLE: Objection. Lacks
10	said before, I'm just including that point	10	foundation.
11	estimate and confidence interval there is really	11	A. I know that Dr. Boffetta had some role
12	meaningless unless you consider all of the	12	at IARC, but honestly I don't know what that
13		13	role was.
14	threats to internal validity, as well as the	14	
	fact that, you know, these authors found		BY MR. MILLER:
15	associations with every chemical that they	15	Q. Do you know where he is now?
16	evaluated when they looked at NHL, which is	16	A. No, I do not know where he's currently
17	consistent with some form of systematic bias.	17	affiliated.
18	And, also, you know, if we wanted to	18	Q. Let's go, please, to Page 4, and
19	look at my report, I outline several other	19	please go to Table 4 on Page 4. Let me know
20	issues also with the Eriksson study.	20	when you're there.
21	(Whereupon, Rider Exhibit 23-9, Cocco,	21	A. Okay. Yep, I'm there.
22	et al article, Lymphoma risk and	22	Q. This is "Risk of B cell lymphoma and
23	occupational exposure to pesticides,	23	occupational exposure to selected active
24	was marked for identification.)	24	ingredients of pesticides"; right?
25	BY MR. MILLER:	25	A. That is correct.
	D 111		
	Page 111		Page 113
1		1	
1 2	Q. 23-9, the Cocco study, you reviewed	1 2	Q. And they list one of those pesticides
2	Q. 23-9, the Cocco study, you reviewed that before?	2	Q. And they list one of those pesticides as glyphosate; right?
2 3	<ul><li>Q. 23-9, the Cocco study, you reviewed that before?</li><li>A. I did read the Cocco study, yes.</li></ul>	2 3	<ul><li>Q. And they list one of those pesticides</li><li>as glyphosate; right?</li><li>A. That is correct.</li></ul>
2 3 4	<ul><li>Q. 23-9, the Cocco study, you reviewed that before?</li><li>A. I did read the Cocco study, yes.</li><li>Q. The Cocco study, there's one, two,</li></ul>	2 3 4	<ul><li>Q. And they list one of those pesticides as glyphosate; right?</li><li>A. That is correct.</li><li>Q. And the odds ratio they list is 4</li></ul>
2 3 4 5	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight</li> </ul>	2 3 4 5	<ul> <li>Q. And they list one of those pesticides as glyphosate; right?</li> <li>A. That is correct.</li> <li>Q. And the odds ratio they list is 4 point I'm sorry, 3.1?</li> </ul>
2 3 4 5 6	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy?</li> </ul>	2 3 4 5 6	<ul> <li>Q. And they list one of those pesticides as glyphosate; right?</li> <li>A. That is correct.</li> <li>Q. And the odds ratio they list is 4 point I'm sorry, 3.1?</li> <li>A. That is true. But what's more</li> </ul>
2 3 4 5 6 7	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy?</li> <li>MR. MILLER: Of course (handing).</li> </ul>	2 3 4 5 6 7	Q. And they list one of those pesticides as glyphosate; right? A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1? A. That is true. But what's more striking to me in this table is that the
2 3 4 5 6 7 8	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy?  MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:</li> </ul>	2 3 4 5 6 7 8	Q. And they list one of those pesticides as glyphosate; right? A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1? A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two
2 3 4 5 6 7 8	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:</li> <li>Q 18 authors?</li> </ul>	2 3 4 5 6 7 8	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only.
2 3 4 5 6 7 8 9	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy?  MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:  Q 18 authors?  A. I would need to count them. One, two,</li> </ul>	2 3 4 5 6 7 8 9	Q. And they list one of those pesticides as glyphosate; right? A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1? A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's
2 3 4 5 6 7 8 9 10	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy?  MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:  Q 18 authors?  A. I would need to count them. One, two, three, four, five, six, seven, eight, nine,</li> </ul>	2 3 4 5 6 7 8 9 10	Q. And they list one of those pesticides as glyphosate; right? A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1? A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?
2 3 4 5 6 7 8 9 10 11	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy?  MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:  Q 18 authors?  A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this</li> </ul>	2 3 4 5 6 7 8 9 10 11	Q. And they list one of those pesticides as glyphosate; right? A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1? A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer? MR. COPLE: Objection. Lacks
2 3 4 5 6 7 8 9 10 11 12	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:</li> <li>Q 18 authors?</li> <li>A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct.</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.
2 3 4 5 6 7 8 9 10 11 12 13	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:</li> <li>Q 18 authors?</li> <li>A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct.</li> <li>Q. And the name of this publication is</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation. A. In terms of cancers in the US, yes,
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine?	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. And they list one of those pesticides as glyphosate; right? A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1? A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer? MR. COPLE: Objection. Lacks foundation. A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	<ul> <li>Q. 23-9, the Cocco study, you reviewed that before?</li> <li>A. I did read the Cocco study, yes.</li> <li>Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).</li> <li>BY MR. MILLER:</li> <li>Q 18 authors?</li> <li>A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct.</li> <li>Q. And the name of this publication is the Occupational Environmental Medicine?</li> <li>A. Oh, I'm sorry, the name of the journal?</li> <li>Q. Yes.</li> <li>A. Occupational and Environmental</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes. A. Occupational and Environmental Medicine, yes, that's correct.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.  Is 2,4-D a herbicide? Is that your
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes. A. Occupational and Environmental Medicine, yes, that's correct. Q. A peer-reviewed journal?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.  Is 2,4-D a herbicide? Is that your understanding?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes. A. Occupational and Environmental Medicine, yes, that's correct. Q. A peer-reviewed journal? A. I have not published in this journal,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.  Is 2,4-D a herbicide? Is that your understanding?  MR. COPLE: Objection. Vague.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes. A. Occupational and Environmental Medicine, yes, that's correct. Q. A peer-reviewed journal? A. I have not published in this journal, so I'm not certain.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.  Is 2,4-D a herbicide? Is that your understanding?  MR. COPLE: Objection. Vague. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes. A. Occupational and Environmental Medicine, yes, that's correct. Q. A peer-reviewed journal? A. I have not published in this journal, so I'm not certain. Q. Do you know any of these authors?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.  Is 2,4-D a herbicide? Is that your understanding?  MR. COPLE: Objection. Vague. BY MR. MILLER: Q. That's a broad question.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. 23-9, the Cocco study, you reviewed that before?  A. I did read the Cocco study, yes. Q. The Cocco study, there's one, two, three, four, five, six, seven, eight MR. COPLE: Do we have a copy? MR. MILLER: Of course (handing).  BY MR. MILLER: Q 18 authors? A. I would need to count them. One, two, three, four, five, six, seven, eight, nine, ten yes, there are 18 authors on this publication, correct. Q. And the name of this publication is the Occupational Environmental Medicine? A. Oh, I'm sorry, the name of the journal? Q. Yes. A. Occupational and Environmental Medicine, yes, that's correct. Q. A peer-reviewed journal? A. I have not published in this journal, so I'm not certain.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. And they list one of those pesticides as glyphosate; right?  A. That is correct. Q. And the odds ratio they list is 4 point I'm sorry, 3.1?  A. That is true. But what's more striking to me in this table is that the analysis is based on four exposed cases and two exposed controls only. Q. You'll agree that non-Hodgkin's lymphoma is a rare cancer?  MR. COPLE: Objection. Lacks foundation.  A. In terms of cancers in the US, yes, there are many more common cancers. BY MR. MILLER: Q. Let's go to the next page. I'm going I'm just going to back up and not even ask a question.  Is 2,4-D a herbicide? Is that your understanding?  MR. COPLE: Objection. Vague. BY MR. MILLER:

29 (Pages 110 to 113)

	Page 114		Page 116
1	A. I know that 2,4-D was a common	1	combined exposure with exposure B were sort of
2	chemical that has been evaluated in many of the	2	more than the sum total of the individual
3	same studies that has identified that have	3	exposures.
4	looked at glyphosate.	4	Q. Does chewing tobacco cause
5	BY MR. MILLER:	5	oropharyngeal cancer?
6	Q. Yes.	6	MR. COPLE: Objection. Vague.
7	And have these studies indicated an	7	A. Actually, I'm not sure.
8	association between 2,4-D and an increased risk	8	BY MR. MILLER:
9	of non-Hodgkin's lymphoma?	9	Q. Okay. Does we've talked about
10	MR. COPLE: Objection. Vague, lacks	10	smoking causes lung cancer. And here's my next
11	foundation.	11	question.
12	A. Yes, some of the studies have	12	Does smoking and moderate drinking
13	identified an association between 2,4-D and NHL.	13	increase the risk of cancer
14	BY MR. MILLER:	14	MR. COPLE: Objection. Vague.
15	Q. And if a person is exposed to two	15	BY MR. MILLER:
16	substances, both of which increase the risk of a	16	Q over one who smokes and does not
17	condition, would that make them at an even more	17	drink?
18	increased risk than being exposed to only one of	18	MR. COPLE: Objection. Vague.
19	those items?	19	A. Sorry, which cancer are we talking
20	MR. COPLE: Objection. Vague,	20	about?
21	incomplete hypothetical.	21	BY MR. MILLER:
22	A. Yeah, it really depends on the on	22	Q. Any cancer.
23	the specific relationship between those	23	MR. COPLE: Objection. Vague.
24	exposures and between the disease.	24	A. So it depends on the cancer that we
25	BY MR. MILLER:	25	are talking about.
	D 11F		
-	Page 115		Page 117
1	Q. Could not teach that to a class in the	1	BY MR. MILLER:
2	Q. Could not teach that to a class in the abstract without knowing the specific exposures?	2	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any
2	<ul><li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li><li>A. Not based on the way that you</li></ul>	2 3	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one.
2 3 4	<ul><li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li><li>A. Not based on the way that you described it, no.</li></ul>	2 3 4	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and
2 3 4 5	<ul><li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li><li>A. Not based on the way that you described it, no.</li><li>Q. And I know I'm not a real smart guy.</li></ul>	2 3 4 5	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered.
2 3 4 5 6	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> </ul>	2 3 4 5 6	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that
2 3 4 5 6 7	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're</li> </ul>	2 3 4 5 6 7	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer
2 3 4 5 6 7 8	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> </ul>	2 3 4 5 6 7 8	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary
2 3 4 5 6 7 8	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget</li> </ul>	2 3 4 5 6 7 8	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about.
2 3 4 5 6 7 8 9	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> </ul>	2 3 4 5 6 7 8 9	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER:
2 3 4 5 6 7 8 9 10	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> </ul>	2 3 4 5 6 7 8 9 10	BY MR. MILLER:  Q. Okay. Any cancer, I mean, just any one.  MR. COPLE: Objection. Asked and answered.  A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER:  Q. Okay. Some cancers it would increase
2 3 4 5 6 7 8 9 10 11	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can</li> </ul>	2 3 4 5 6 7 8 9 10 11	BY MR. MILLER:  Q. Okay. Any cancer, I mean, just any one.  MR. COPLE: Objection. Asked and answered.  A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER:  Q. Okay. Some cancers it would increase the risk, and some it wouldn't?
2 3 4 5 6 7 8 9 10 11 12 13	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can cause an injury, and if separately exposure to B</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and
2 3 4 5 6 7 8 9 10 11 12 13 14	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. Could not teach that to a class in the abstract without knowing the specific exposures?  A. Not based on the way that you described it, no.  Q. And I know I'm not a real smart guy.  What's wrong with the way I described it?  A. Well, I don't know what concept you're trying to get at in your description.  Q. Well, I'm not trying just forget about pesticides, forget about herbicides.  A. Okay.  Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?	2 3 4 5 6 7 8 9 10 11 12 13 14	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?</li> <li>MR. COPLE: Objection. Vague,</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	BY MR. MILLER:  Q. Okay. Any cancer, I mean, just any one.  MR. COPLE: Objection. Asked and answered.  A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER:  Q. Okay. Some cancers it would increase the risk, and some it wouldn't?  MR. COPLE: Objection. Asked and answered.  A. Again, could you rephrase the question that you're asking, please?  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.</li> <li>A. It depends whether there was a</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	<ul> <li>Q. Could not teach that to a class in the abstract without knowing the specific exposures?</li> <li>A. Not based on the way that you described it, no.</li> <li>Q. And I know I'm not a real smart guy.</li> <li>What's wrong with the way I described it?</li> <li>A. Well, I don't know what concept you're trying to get at in your description.</li> <li>Q. Well, I'm not trying just forget about pesticides, forget about herbicides.</li> <li>A. Okay.</li> <li>Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.</li> <li>A. It depends whether there was a synergistic relationship between A and B.</li> </ul>	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I mean, I'm just trying
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Could not teach that to a class in the abstract without knowing the specific exposures?  A. Not based on the way that you described it, no.  Q. And I know I'm not a real smart guy.  What's wrong with the way I described it?  A. Well, I don't know what concept you're trying to get at in your description.  Q. Well, I'm not trying just forget about pesticides, forget about herbicides.  A. Okay.  Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.  A. It depends whether there was a synergistic relationship between A and B.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I mean, I'm just trying A. I just don't understand the question.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Could not teach that to a class in the abstract without knowing the specific exposures?  A. Not based on the way that you described it, no.  Q. And I know I'm not a real smart guy.  What's wrong with the way I described it?  A. Well, I don't know what concept you're trying to get at in your description.  Q. Well, I'm not trying just forget about pesticides, forget about herbicides.  A. Okay.  Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.  A. It depends whether there was a synergistic relationship between A and B.  BY MR. MILLER:  Q. And how would you describe to a	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I mean, I'm just trying A. I just don't understand the question. Q. Okay. Like smoking and drinking as
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. Could not teach that to a class in the abstract without knowing the specific exposures?  A. Not based on the way that you described it, no.  Q. And I know I'm not a real smart guy.  What's wrong with the way I described it?  A. Well, I don't know what concept you're trying to get at in your description.  Q. Well, I'm not trying just forget about pesticides, forget about herbicides.  A. Okay.  Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.  A. It depends whether there was a synergistic relationship between A and B.  BY MR. MILLER:  Q. And how would you describe to a layperson what a synergistic effect is?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I mean, I'm just trying A. I just don't understand the question. Q. Okay. Like smoking and drinking as compared to just smoking, does that increase
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Could not teach that to a class in the abstract without knowing the specific exposures?  A. Not based on the way that you described it, no.  Q. And I know I'm not a real smart guy.  What's wrong with the way I described it?  A. Well, I don't know what concept you're trying to get at in your description.  Q. Well, I'm not trying just forget about pesticides, forget about herbicides.  A. Okay.  Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.  A. It depends whether there was a synergistic relationship between A and B.  BY MR. MILLER:  Q. And how would you describe to a layperson what a synergistic effect is?  A. So when we're talking about sort of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I mean, I'm just trying A. I just don't understand the question. Q. Okay. Like smoking and drinking as compared to just smoking, does that increase one's risk of lung cancer?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Could not teach that to a class in the abstract without knowing the specific exposures?  A. Not based on the way that you described it, no.  Q. And I know I'm not a real smart guy.  What's wrong with the way I described it?  A. Well, I don't know what concept you're trying to get at in your description.  Q. Well, I'm not trying just forget about pesticides, forget about herbicides.  A. Okay.  Q. If condition A exposure to A can cause an injury, and if separately exposure to B can cause an injury, would I increase my risk of that injury if I was exposed to both A and B?  MR. COPLE: Objection. Vague, incomplete hypothetical.  A. It depends whether there was a synergistic relationship between A and B.  BY MR. MILLER:  Q. And how would you describe to a layperson what a synergistic effect is?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	BY MR. MILLER: Q. Okay. Any cancer, I mean, just any one. MR. COPLE: Objection. Asked and answered. A. I can't tell you the answer to that question if I don't know what specific cancer we're talking about. It would certainly vary according to which cancer we're talking about. BY MR. MILLER: Q. Okay. Some cancers it would increase the risk, and some it wouldn't? MR. COPLE: Objection. Asked and answered. A. Again, could you rephrase the question that you're asking, please? BY MR. MILLER: Q. I'm not trying to hide the ball. I mean, I'm just trying A. I just don't understand the question. Q. Okay. Like smoking and drinking as compared to just smoking, does that increase

	Page 118		Page 120
1	MR. COPLE: Objection. Asked and	1	A. Yes, that's correct.
2	answered.	2	Q. Is it a peer-reviewed journal?
3	A. So again, if what you're asking is, is	3	A. Again, I haven't published in this
4	there a biological interaction between smoking	4	journal, so I couldn't be certain.
5	and drinking with respect to oropharyngeal	5	Q. Oh, I've got to switch with you. I
6	cancer, if that's what you're asking, I'm	6	gave you the wrong copy. Sorry. All right.
7	actually not sure. I believe that both of those	7	Doctor, that same thing, just not my work copy
8	are independent risk factors for oropharyngeal	8	(handing). Okay?
9	cancer. I don't know if there's a synergistic	9	A. Okay.
10	relationship. I'm not sure.	10	Q. Do you know either of the authors?
11	BY MR. MILLER:	11	A. I do not.
12	Q. Going back to the last study we looked	12	Q. And the issue they're studying in this
13	at, the Cocco study, the odds ratio 3.1 that we	13	article is Non-Hodgkin's Lymphoma and
14	saw in Table 4	14	Occupational Exposure to Agricultural Pesticide
15	A. Mm-hmm.	15	Chemical Groups and Active Ingredients; right?
16	Q do you remember that conversation?	16	A. That is correct.
17	Do you criticize this study or this	17	Q. And it's a meta-analysis; right?
18	result?	18	A. Well, like the Chang and Delzell paper
19	A. I think that an analysis based on four	19	that we've also been referring to, it is a
20	exposed cases and two exposed controls should be	20	systematic review and meta-analysis, so the
21	interpreted as exploratory at the very most.	21	combining of the relative risks and the
22	Q. Let's move on to the next study.	22	confidence intervals is just one sort of small
23		23	piece of the paper.
24		24	Q. Let's look at this meta-analysis, if
25		25	we could, please, on Page 4513.
	Page 119		Page 121
1	(Whereupon, Rider Exhibit 23-10,	1	A. Okay.
2	Schinasi and Leon article, Non-Hodgkin		
_		2	Q. And that is a table on the
3	Lymphoma and Occupational Exposure to	3	meta-analytic summary estimates of association
4	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups		meta-analytic summary estimates of association between herbicides and insecticides with
4 5	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for	3 4 5	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?
4	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.)	3 4	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right? A. That is correct, yes.
4 5 6 7	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER:	3 4 5 6 7	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right? A. That is correct, yes. Q. And one of the herbicides that they
4 5 6 7 8	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can	3 4 5 6	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?
4 5 6 7 8 9	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi.	3 4 5 6 7 8	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.
4 5 6 7 8 9	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right?	3 4 5 6 7 8 9	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio
4 5 6 7 8 9 10	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea.	3 4 5 6 7 8 9 10	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right? A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as
4 5 6 7 8 9 10 11	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've	3 4 5 6 7 8 9 10 11	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right? A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?
4 5 6 7 8 9 10 11 12	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this?	3 4 5 6 7 8 9 10 11 12	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in
4 5 6 7 8 9 10 11 12 13 14	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this? A. I did look at this, yes. But as I	3 4 5 6 7 8 9 10 11 12 13	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.
4 5 6 7 8 9 10 11 12 13 14	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed	3 4 5 6 7 8 9 10 11 12 13 14 15	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.  Q. And the width of the confidence
4 5 6 7 8 9 10 11 12 13 14 15	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion.	3 4 5 6 7 8 9 10 11 12 13 14 15	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.  Q. And the width of the confidence interval is 1.1 to 2.0; right?
4 5 6 7 8 9 10 11 12 13 14 15 16 17	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You'vehave you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion. Q. You say you looked at it. Did you	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right? A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right? A. That is the number that's listed in the table, yes. Q. And the width of the confidence interval is 1.1 to 2.0; right? A. That is correct. But as I've said,
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You'vehave you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion. Q. You say you looked at it. Did you read the whole thing?	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right? A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes. Q. And the width of the confidence interval is 1.1 to 2.0; right?  A. That is correct. But as I've said, unless you believe that the all of the
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion. Q. You say you looked at it. Did you read the whole thing? A. I probably skimmed over the whole	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right? A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right? A. That is the number that's listed in the table, yes. Q. And the width of the confidence interval is 1.1 to 2.0; right? A. That is correct. But as I've said, unless you believe that the all of the studies that are included in this meta-analysis
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.)  BY MR. MILLER:  Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi.  Am I pronouncing that right?  A. I have no idea.  Q. I don't know. Nor do I. You've have you reviewed this?  A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion.  Q. You say you looked at it. Did you read the whole thing?  A. I probably skimmed over the whole thing. I don't think I read the whole thing	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes. Q. And one of the herbicides that they look at is glyphosate; right? A. That is listed here in the table, yes. Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right? A. That is the number that's listed in the table, yes. Q. And the width of the confidence interval is 1.1 to 2.0; right? A. That is correct. But as I've said, unless you believe that the all of the studies that are included in this meta-analysis have internal validity, there's really no
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You'vehave you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion. Q. You say you looked at it. Did you read the whole thing? A. I probably skimmed over the whole thing. I don't think I read the whole thing thoroughly.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.  Q. And the width of the confidence interval is 1.1 to 2.0; right?  A. That is correct. But as I've said, unless you believe that the all of the studies that are included in this meta-analysis have internal validity, there's really no meaning to that point estimate or the confidence
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion. Q. You say you looked at it. Did you read the whole thing? A. I probably skimmed over the whole thing. I don't think I read the whole thing thoroughly. Q. And this is published in the	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.  Q. And the width of the confidence interval is 1.1 to 2.0; right?  A. That is correct. But as I've said, unless you believe that the all of the studies that are included in this meta-analysis have internal validity, there's really no meaning to that point estimate or the confidence interval.
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.)  BY MR. MILLER:  Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi.  Am I pronouncing that right?  A. I have no idea.  Q. I don't know. Nor do I. You've have you reviewed this?  A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion.  Q. You say you looked at it. Did you read the whole thing?  A. I probably skimmed over the whole thing. I don't think I read the whole thing thoroughly.  Q. And this is published in the International Journal for Environmental Public	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.  Q. And the width of the confidence interval is 1.1 to 2.0; right?  A. That is correct. But as I've said, unless you believe that the all of the studies that are included in this meta-analysis have internal validity, there's really no meaning to that point estimate or the confidence interval.  Q. And the papers that these authors say
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients, was marked for identification.) BY MR. MILLER: Q. We're at our first meta-analysis. Can we look at 23-10 together? This is Schinasi. Am I pronouncing that right? A. I have no idea. Q. I don't know. Nor do I. You've have you reviewed this? A. I did look at this, yes. But as I said before, none of the analyses really weighed into my own independent expert opinion. Q. You say you looked at it. Did you read the whole thing? A. I probably skimmed over the whole thing. I don't think I read the whole thing thoroughly. Q. And this is published in the	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	meta-analytic summary estimates of association between herbicides and insecticides with non-Hodgkin's lymphoma; right?  A. That is correct, yes.  Q. And one of the herbicides that they look at is glyphosate; right?  A. That is listed here in the table, yes.  Q. And they give us a meta-risk ratio estimate, and for glyphosate they give us 1.5 as the risk ratio; right?  A. That is the number that's listed in the table, yes.  Q. And the width of the confidence interval is 1.1 to 2.0; right?  A. That is correct. But as I've said, unless you believe that the all of the studies that are included in this meta-analysis have internal validity, there's really no meaning to that point estimate or the confidence interval.

	Page 122		Page 124
1	A. 30 to 33, 43, and 46, that is correct.	1	of scientific certainty did affect; right?
2	Q. So that would be the De Roos paper in	2	MR. COPLE: Objection. Argumentative.
3	'03?	3	A. Can you tell me, affect what? What do
4	A. Yeah, I'm there.	4	you mean?
5	Q. And it would be the De Roos paper in	5	BY MR. MILLER:
6	'05, which is the Agricultural Health Study;	6	Q. You said I want to go back and
7	right?	7	look. Give me a second here. You said that
8	A. That is correct.	8	this didn't I want to go back and get the
9	Q. And it would include Eriksson's study	9	right language here. One second, excuse me.
10	from '08 that we've just discussed; right?	10	"But even more importantly, that 1.5
11	A. Correct.	11	doesn't take into account the systemic bias that
12	Q. And they also analyzed the Hardell	12	could have affected the results in all of these
13	study from '02?	13	individual studies." And "could have affected,"
14	A. Correct.	14	but you can't say to a reasonable degree of
15	Q. And also in the Schinasi	15	scientific certainty did affect. And that's
16	meta-analysis. They looked at the McDuff paper	16	fair; right?
17	that we've talked about; right?	17	MR. COPLE: Objection. Argumentative.
18	A. McDuffie, yes.	18	A. I think that from what we now know
19	Q. McDuffie.	19	from the Agricultural Health Study and from the
20	And finally, they looked at the Orsi	20	NAPP, it seems very clear that these studies did
21	paper, right?	21	have systematic bias that influenced their
22	A. Yes, that is correct.	22	results.
23	Q. And when they looked at all these	23	BY MR. MILLER:
24	papers and performed a meta-analysis on them, at	24	Q. How does the you're referring to
25	least to these authors they felt there was a	25	the AHS unpublished study, is that
	Page 123		Page 125
1	50 percent meta-risk ratio; right?	1	A. Or even the 2005 study.
2	MR. COPLE: Objection. Asked and	2	Q. And we're going to talk about both of
3	answered.	3	those in more detail. But let's go back to the
4	A. So as I said, that is the result of	4	published meta-analysis by Schinasi and Leon
5	their meta-analysis from those papers that you	5	A. Okay.
6	just that you just listed. I think it's	6	Q still on Table 5.
7	important to point out that that list does not	7	In addition to showing a 50 percent
8	include some of the more recent and, in my	8	risk for glyphosate, they also looked at the
9	opinion, the strongest evidence that we have to	9	glyphosate association specifically with B cell
10	date on glyphosate and NHL, as was included in	10	lymphoma; right?
11	the subsequent meta-analysis by Chang and	11	A. Yes.
12	Delzell. But even more importantly, that 1.5	12	Could you remind me of that page
13	doesn't take into account the systematic bias	13	number again?
14	that could have affected the results in all of	14	Q. Yes, ma'am. That's 4513.
15	those individual studies.	15	A. Thank you.
16	And if, you know, we read through the	16	Okay. Yes, they also present another
17	systematic review portion of this article, as	17	estimate for the glyphosate association
18	well as the Chang and Delzell article, I think	18	specifically with B cell lymphoma.
19	you get a much better sense for how there could	19	Q. And they showed a doubling of the
20	be alternative reasons for those odds ratios	20	risk, right?
0.1	that were above 1, other than that glyphosate is	21	A. I wouldn't characterize it that way.
21			
22	a cause of NHL.	22	I would say in their meta-analysis, using all of
22 23	a cause of NHL. BY MR. MILLER:	23	these studies that I've told you I think have
22	a cause of NHL.	1	

#### Page 128 Page 126 1 Q. And they cite as the studies they used 1 of the studies for all of these other chemicals, 2 in that finding as the Eriksson study, and 63, 2 so I can't speak to their quality. I would need 3 which is the Cocco study that we just looked at, 3 to go and look at all those primary studies to 4 4 tell you. right? 5 A. That is correct, yes. 5 Q. For Alkalol they do not show an 6 6 Q. And you disagree that these are increased risk; true? 7 accurate findings; right? 7 MR. COPLE: Objection. Asked and 8 A. I do. As we talked about before, the 8 answered. 9 Cocco study was based on only four exposed 9 A. I'm sorry. Alkalol in this Table 5? 10 cases. I definitely don't believe you can make 10 BY MR. MILLER: 11 causal inferences based on four people. And the Q. Yes. It's at the top of Table 5. 11 MR. COPLE: Same objection. 12 Eriksson study was -- had a number of issues, 12 13 including the fact that every single chemical 13 A. So, you know, I can look at this 14 that was investigated in the Eriksson study -- I 14 meta-risk ratio in this table from the 15 can't tell you how many there are offhand, but 15 meta-analysis component of this systematic 16 if we looked at my report we could tell. Every 16 review and meta-analysis, and indeed it does 17 17 single chemical they looked at showed an show that there is a risk ratio of .9, but that 18 association with NHL. So we could take that to 18 risk ratio means absolutely nothing if we don't 19 mean that every single one of those chemicals is 19 interpret it in terms of the context of the 20 associated -- is a cause of NHL, or the much 20 quality of those studies that it went into more likely explanation is that study suffers 21 21 generating that meta-analysis risk ratio 22 from a systematic bias. 22 estimate. 23 23 Q. Let's look at Table 5. It's not true BY MR. MILLER: 24 to say that every chemical was associated with a 24 Q. And they showed no increased risk for 25 risk, is it, Doctor? 25 trifluralin, right? Page 127 Page 129 1 MR. COPLE: Objection. Argumentative. A. Sorry. Q. It's about a third of the way down, 2 A. Sorry, Table 5 in this -- in the 2 3 meta-analysis? 3 trifluralin. 4 BY MR. MILLER: 4 A. Trifluralin. So I can really give you 5 5 Q. Yes. the same response that I just said a moment ago, 6 A. Okay. 6 that's that while this meta-risk ratio is .9, 7 7 O. Alkalol, whatever that is, was not that estimate means absolutely nothing if we 8 8 don't have confidence in the results of the associated with an increased risk, was it? 9 A. I was talking about the Eriksson 9 independent studies that were used to generate 10 study. So you were asking me about whether I 10 that meta-analysis risk ratio. believe those results were true for B cell Q. Urea herbicides, they show an 11 11 12 lymphoma specifically, and I was explaining 12 increased risk on Table 5; right? MR. COPLE: Objection. Asked and 13 that --13 Q. I see. 14 14 answered. A. Yes. 15 15 A. So once again, that meta-risk ratio 16 Q. I misunderstood you then. 16 estimate is 1.0. I would know really nothing 17 But you'll agree from Table 5 on this 17 about how meaningful that meta-analysis risk estimate is without reviewing all of the 18 meta-analysis done by Schinasi, they list 18 19 19 several chemicals where they don't show an individual studies that went into that estimate, 20 20 increased risk; true? because if those studies are biased, then so, 21 21 A. Again, so I mean, I think, you know, too, will be this meta-analysis risk ratio 22 all of these meta-analysis risk ratios are 22 estimate. 23 dependent solely on the quality of the studies 23 Q. Indeed, Table 5 from this 24 that went into developing that meta-analysis 24 peer-reviewed published meta-analysis shows the 25 25 estimate. So, you know, I haven't reviewed all meta-risk ratio for a whole page load of these

	Page 130		Page 132
1	items, and the highest risk ratio for any item	1	frequency wasn't a cause of prostate cancer, and
2	is glyphosate associated with B cell lymphoma;	2	in our response to those articles we provided
3	true?	3	them with evidence that that was actually an
4	MR. COPLE: Objection. The document	4	implausible hypothesis.
5	speaks for itself. Asked and answered.	5	Q. And so that's what I'm asking. As
6	A. So I mean, there are other risk ratio	6	regard that happens in science, people write
7	estimates on this page that are equivalent to	7	letters to editors to debate articles, and
8	the one found from glyphosate. But again, none	8	authors respond; right?
9	of these mean anything at all. We can combine	9	MR. COPLE: Objection. Asked and
10	lots of estimates from lots of different studies	10	answered.
11	that were improperly conducted or had flaws in	11	A. So it certainly happens, but more
12	their analysis and, you know, we can see a risk	12	often than not it doesn't happen. I think the
13	ratio that's above 1, but that doesn't provide	13	number of articles that are out there in the
14	us with any greater assurance as to the	14	peer-reviewed literature for which there's never
15	association, the causal association between the	15	been a letter written far exceeds the number of
16	exposure and the outcome than those poorly	16	articles for which there has been this dialogue
17	conducted individual studies did.	17	through letters. And I think that has nothing
18	BY MR. MILLER:	18	to do with the quality of those publications.
19	Q. And have you written to anyone to tell	19	BY MR. MILLER:
20	the journal that this was a poorly conducted	20	Q. To be clear, before we leave the
21	study, the Schinasi and Leon? Have you	21	Schinasi article, you did not write such a
22	criticized it in writing before being hired as	22	letter criticizing the Schinasi article to the
23	an expert by Monsanto in any way?	23	International Journal of Research and Public
24	MR. COPLE: Objection. Vague.	24	Health?
25	A. I don't need to contact the journals	25	MR. COPLE: Objection. Asked and
	11. 1 don't need to commet the journal		inin corazi cojetnom risned and
	D 121		
	Page 131		Page 133
1	to be able to offer my opinions and review of	1	Page 133 answered four times.
1 2		1 2	
	to be able to offer my opinions and review of		answered four times.
2	to be able to offer my opinions and review of the literature.	2	answered four times.  A. Yeah, I don't think it's necessary to
2	to be able to offer my opinions and review of the literature. BY MR. MILLER:	2 3	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might
2 3 4	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead	2 3 4	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.
2 3 4 5	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead and finish.	2 3 4 5	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no. BY MR. MILLER:
2 3 4 5 6	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead and finish. A. That's not typically how this works.	2 3 4 5 6	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone
2 3 4 5 6 7	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead and finish. A. That's not typically how this works.  And while, you know, you have stated again that	2 3 4 5 6 7	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by
2 3 4 5 6 7 8	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead and finish. A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any	2 3 4 5 6 7 8	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?
2 3 4 5 6 7 8	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the	2 3 4 5 6 7 8	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.
2 3 4 5 6 7 8 9	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead and finish. A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies	2 3 4 5 6 7 8 9	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell
2 3 4 5 6 7 8 9 10	to be able to offer my opinions and review of the literature.  BY MR. MILLER: Q. I'm sorry, I interrupted. Go ahead and finish. A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something	2 3 4 5 6 7 8 9 10	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were
2 3 4 5 6 7 8 9 10 11	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take	2 3 4 5 6 7 8 9 10 11	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.
2 3 4 5 6 7 8 9 10 11 12	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering	2 3 4 5 6 7 8 9 10 11 12	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.	2 3 4 5 6 7 8 9 10 11 12 13 14	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an
2 3 4 5 6 7 8 9 10 11 12 13 14	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of	2 3 4 5 6 7 8 9 10 11 12 13 14 15	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.  Do you remember that?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and answered.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.  Do you remember that?  A. There was a dialogue, and I responded	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and answered.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.  Do you remember that?  A. There was a dialogue, and I responded to that letter that I believe you're referring	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and answered.  BY MR. MILLER:  Q article?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.  Do you remember that?  A. There was a dialogue, and I responded to that letter that I believe you're referring to. I wouldn't really characterize that as a	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and answered.  BY MR. MILLER:  Q article?  A. So I have answered that already. I
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.  Do you remember that?  A. There was a dialogue, and I responded to that letter that I believe you're referring to. I wouldn't really characterize that as a criticism. I think the authors were sort of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no.  BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written.  BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and answered.  BY MR. MILLER:  Q article?  A. So I have answered that already. I have not written letters about any of these
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	to be able to offer my opinions and review of the literature.  BY MR. MILLER:  Q. I'm sorry, I interrupted. Go ahead and finish.  A. That's not typically how this works.  And while, you know, you have stated again that this is a peer-reviewed publication, I think any scientist would agree that the quality of the peer-reviewed published literature varies substantially. So just because we see something in print doesn't mean that we can just take those results at face value without considering the limitations of the study.  Q. In your high ejaculation low risk of prostate cancer study, someone did write a letter to the editor and criticized that study.  Do you remember that?  A. There was a dialogue, and I responded to that letter that I believe you're referring to. I wouldn't really characterize that as a criticism. I think the authors were sort of seeking clarification. They had one specific	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	answered four times.  A. Yeah, I don't think it's necessary to write letters for every article that I might have criticisms of, no. BY MR. MILLER:  Q. All right. Can you think of anyone that wrote a letter criticizing this article by Schinasi and Leon?  MR. COPLE: Objection. Vague.  A. I would have to look in PubMed to tell you whether or not there were there were letters written. BY MR. MILLER:  Q. Since you've been retained as an expert by Monsanto, have you written any letters criticizing this  MR. COPLE: Objection. Asked and answered. BY MR. MILLER:  Q article?  A. So I have answered that already. I have not written letters about any of these articles. That has nothing to do with my

	Page 134		Page 136
1	related.	1	That's covered by the protocol.
2	Q. Let's go to the NAPP study. You	2	A. I did not take any
3	reviewed that, right, Doctor?	3	MR. COPLE: Don't
4	A. The draft manuscript is what you're	4	A any notes.
5	referring to, or the what aspect of the NAPP	5	MR. COPLE: Okay.
6	study?	6	BY MR. MILLER:
7	(Whereupon, Rider Exhibit 23-11,	7	Q. Okay. Is there anything you're going
8	9/21/15 NAPP manuscript, was marked	8	to tell a jury, gee, Dr. Neugut's just
9	for identification.)	9	scientifically wrong on this, other than we
10	BY MR. MILLER:	10	disagree we have a reasonable disagreement
11	Q. What aspects of it have you reviewed?	11	about conclusions?
12	MR. COPLE: Objection. Vague.	12	MR. COPLE: Objection. Argumentative.
13	A. So I have reviewed both a draft	13	A. There were a number of things that I
14	manuscript as well as some oral presentations	14	disagreed with in Dr. Neugut's testimony.
15	and PowerPoint slides that were presented at	15	BY MR. MILLER:
16	conferences.	16	Q. And I'm sure you disagree with him
17	BY MR. MILLER:	17	using the Bradford-Hill criteria here, or coming
18	Q. Let's start with the manuscript. Is	18	to the conclusions on causality that he did, but
19	this 23-11 the manuscript that you reviewed?	19	is there anything that you read that you
20	MR. COPLE: Do you have a copy?	20	thought, gee, this guy just doesn't know his
21	MR. MILLER: Of course (handing).	21	epidemiology?
22	A. Yes. So I believe this is the same	22	MR. COPLE: Objection. Argumentative,
23	version that I reviewed, but in my report I	23	vague.
24	primarily relied on the results from the	24	A. I would need to see Dr. Neugut's
25	PowerPoint presentations that were presented at	25	deposition to point you to specific examples.
	•		
	Page 135		Page 137
1	Page 135 various conferences.	1	But, yes, it was there were issues, other
1 2	various conferences. BY MR. MILLER:	1 2	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for
	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors?	l	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of
2	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document	2	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.
2	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself.	2	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:
2 3 4	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct.	2 3 4	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything
2 3 4 5	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself.	2 3 4 5	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:
2 3 4 5 6	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct.	2 3 4 5 6	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything
2 3 4 5 6 7 8 9	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not.	2 3 4 5 6 7	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the
2 3 4 5 6 7 8 9	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair?	2 3 4 5 6 7 8	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.
2 3 4 5 6 7 8 9 10	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case?	2 3 4 5 6 7 8	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the
2 3 4 5 6 7 8 9	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed	2 3 4 5 6 7 8 9	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.
2 3 4 5 6 7 8 9 10 11 12	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no.	2 3 4 5 6 7 8 9 10 11 12	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC
2 3 4 5 6 7 8 9 10 11	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up.	2 3 4 5 6 7 8 9 10 11 12 13	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the
2 3 4 5 6 7 8 9 10 11 12 13 14 15	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in	2 3 4 5 6 7 8 9 10 11 12 13 14 15	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.
2 3 4 5 6 7 8 9 10 11 12 13 14	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case?	2 3 4 5 6 7 8 9 10 11 12 13 14 15	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph
2 3 4 5 6 7 8 9 10 11 12 13 14 15	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition. Q. Do you know Dr. Neugut?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph speaks for itself.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition. Q. Do you know Dr. Neugut?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph speaks for itself.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition. Q. Do you know Dr. Neugut? A. I have never met Dr. Neugut, no.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph speaks for itself.  A. I would have to look again at the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition. Q. Do you know Dr. Neugut? A. I have never met Dr. Neugut, no. Q. Did you take any notes, any criticisms	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph speaks for itself.  A. I would have to look again at the monograph. I don't recall.  BY MR. MILLER:  Q. Let's go to Page 2, and it says "What
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	various conferences. BY MR. MILLER: Q. And this is authored by 12 authors? MR. COPLE: Objection. The document speaks for itself. A. Yes, I count 12 authors, correct. BY MR. MILLER: Q. Do you know Dr. Aaron Blair? A. I do not. Q. Have you read his deposition in this case? A. I do not believe I've reviewed Dr. Blair's deposition, no. Q. Let me back up. Have you reviewed any depositions in this case? A. I have. I've reviewed Dr. Neugut's deposition, and also Dr. Ritz's deposition. Q. Do you know Dr. Neugut? A. I have never met Dr. Neugut, no. Q. Did you take any notes, any criticisms about Dr. Neugut's testimony?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	But, yes, it was there were issues, other than the use of the Bradford-Hill criteria, for which I disagreed with his application of epidemiologic methods, yes.  BY MR. MILLER:  Q. Looking at 23-11, do you know anything about Dr. Blair's credentials or his expertise?  A. No. I had not I was not familiar with Dr. Blair until reading in these the papers that he had co-authored.  Q. Do you whether he had any relationship with IARC?  A. I know that he was present at the IARC monograph, because that's disclosed in the actual monograph.  Q. Was he the chair of that monograph Volume 112?  MR. COPLE: Objection. Monograph speaks for itself.  A. I would have to look again at the monograph. I don't recall.  BY MR. MILLER:

35 (Pages 134 to 137)

	Page 138		Page 140
1	A. I do.	1	A. Okay.
2	Q. And let me go back. I think I jumped	2	Q. In the Discussion section, the second
3	ahead.	3	paragraph, these authors state, "This report
4	The title of the paper is, and it's on	4	confirms previous analyses indicating increased
5	Page 1, "An evaluation of glyphosate use and the	5	risk of non-Hodgkin's lymphoma in association
6	risk of non-Hodgkin's lymphoma major	6	with glyphosate exposure."
7	histological sub-types in the North American	7	Do you agree, or not agree?
8	Pooled Project (NAPP)"; right?	8	A. I disagree with that statement.
9	A. That is correct.	9	Q. And below that, the next paragraph,
10	Q. So looking at that issue, on Page 2	10	"Our results are also aligned with findings from
11	the authors say "What This Paper Adds," "Date of	11	epidemiological studies of other populations
12	last revision: September 21, 2015."	12	that found an elevated risk of non-Hodgkin's
13	A. Uh-huh.	13	lymphoma for glyphosate exposure and with a
14	Q. Do you know if that was after IARC	14	greater number of days/years of glyphosate use,
15	Volume 112?	15	as well as a meta-analysis of glyphosate use and
16	A. I actually don't recall the exact date	16	non-Hodgkin's lymphoma risk. From our
17	of the IARC meeting, no.	17	epidemiological perspective, our results were
18	Q. So what this paper adds, sub-bullet	18	supportive of the IARC evaluation of glyphosate
19	three, "Subjects who ever used glyphosate had	19	as a probable carcinogen for non-Hodgkin's
20	elevated odds ratios for non-Hodgkin's lymphoma	20	lymphoma."
21	overall and for all subtypes except follicular	21	Agree or disagree?
22	lymphoma."	22	A. Well, I would disagree, because these
23	Did I read that correctly?	23	results that they are referring to don't adjust
24	MR. COPLE: Objection. The document	24	for other pesticides, as I've mentioned. And,
25	speaks for itself.	25	you know, you can see clearly in their oral
	Page 139		Page 141
1	A. Yes, follicular lymphoma, yes.	1	presentations where they adjust for those
2	BY MR. MILLER:	2	pesticides that that adjustment has a profound
3	Q. And you disagree with the authors in	3	impact on the results and the conclusions that
4	that conclusion?	4	you would draw from those results.
5	A. Well, I think that when we look at the	5	They also, in those same
6	results of the analysis in the NAPP that were	6	presentations, determine that proxy respondents
7	adjusted for other chemicals, and also the	7	were extremely influential and drove the odds
8	analysis where they excluded proxy respondents,	8	ratios upward, and when they removed those proxy
9	we see no association between glyphosate and	9	respondents the association was no longer
10	NHL.	10	apparent.
11	Q. These authors write, "Significant or	11	So it's my view that when they're
12	nearly significant risk of non-Hodgkin's	12	talking about how their results are consistent
13	lymphoma overall were observed for greater than	13	with previous findings, first of all, I don't
14	two days per year (odds ratio 2.42)."	14	think those findings tell us much because of the
15	Is that an association that you think	15	quality of many of those studies, but also
16	was that you criticize?	16	they're choosing the wrong estimates to base
17	A. I think that the results from the NAPP	17	that opinion on.
18	that are adjusted for other chemicals, so they	18	Q. They end their discussion well, not
19	adjusted for three other chemicals, and then	19	quite the end, but go to the bottom of Page 14
20	found no association between glyphosate and NHL.	20	of 19.
21	I believe those results are much more compelling	21	A. Okay.
22	because their results are consistent with there	22	Q. They talk about recall bias and state
23	being confounding by those other pesticides.	23	that it is not a major concern in the Canadian
24	Q. Go to, if you would, to Page 12,	24	studies or in the NAPP as a whole.
25	please.	25	Do you see that statement?
l		ا م	

36 (Pages 138 to 141)

1 MR. COPLE: Objection. The document speaks for itself. 2 speaks for itself. 3 A. Could you give me a little more direction on where that statement is? 4 direction on where that statement is? 5 BY MR. MILLER: 6 Q. Yes, ma'am. At the bottom of Page 14, "No similar analysis of recall bias has been conducted in the Canadian case-control study, but the similarity of study designs between the 10 US and Canada make it likely that recall bias is not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their own analyses of the NAPP they've demonstrated that recall bias was a problem, because when you don't include the proxy respondents, you get a don't include the proxy respondents, you get a statement. 16 But I think even if you don't think that recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  Page 145  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that
2 speaks for itself. 3 A. Could you give me a little more 4 direction on where that statement is? 5 BY MR. MILLER: 6 Q. Yes, ma'am. At the bottom of Page 14, 7 "No similar analysis of recall bias has been 8 conducted in the Canadian case-control study, 9 but the similarity of study designs between the 10 US and Canada make it likely that recall bias is 11 not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 10 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 145  Page 145  I But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  2 North American case control studies. A. Okay. Q. Coporton, Namerican case control studies. A. Okay. Page 145 A. Okay.  Okay. A. You would need to show me what you mean by that. BY MR. MILLER: A. Well, the one you showed me previously was also Dr. Chang's meta-analysis, are you familiar when I say that? A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/2/4/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.) BY MR. MILLER: Q. Doctor, I'm showing you what we've marked as 23-12. A. Okay. Q. Have you seen this document before
direction on where that statement is?  BY MR. MILLER:  Q. Yes, ma'am. At the bottom of Page 14, "No similar analysis of recall bias has been conducted in the Canadian case-control study, but the similarity of study designs between the US and Canada make it likely that recall bias is not a major concern in the Canadian study and NAPP as a whole."  A. You would need to show me what you mean by that.  BY MR. MILLER: Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, I mean, I think that in their own analyses of the NAPP they've demonstrated that recall bias was a problem, because when you don't include the proxy respondents, you get a different result. So I would disagree with that statement.  But I think even if you don't think statement.  But I think even if you don't think that recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  A. Okay. Q. Exponent meta-analysis. Do you know what I mean when I say that?  MR. COPLE: Objection. Vague, lacks foundation.  A. You would need to show me what you mean by that.  BY MR. MILLER: Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis. (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: Q. Doctor, I'm showing you what we've marked as 23-12.  Page 143  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
5 BY MR. MILLER: 6 Q. Yes, ma'am. At the bottom of Page 14, 7 "No similar analysis of recall bias has been 8 conducted in the Canadian case-control study, 9 but the similarity of study designs between the 10 US and Canada make it likely that recall bias is 11 not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 19 But I think even if you don't think 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  1 But just, for example, the timing of 2 when the studies were conducted, with respect 3 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that  5 Q. Exponent meta-analysis. Mar. I man what I mean when I say that?  MR. COPLE: Objection. Vague, lacks foundation.  A. You would need to show me what you mean by that.  BY MR. MILLER:  Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER:  Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Q. Have you seen this document before
6 Q. Yes, ma'am. At the bottom of Page 14, 7 "No similar analysis of recall bias has been 8 conducted in the Canadian case-control study, 9 but the similarity of study designs between the 10 US and Canada make it likely that recall bias is 11 not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 19 But I think even if you don't think 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 143  But just, for example, the timing of 4 when the studies were conducted, with respect 3 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that  What I mean when I say that?  MR. COPLE: Objection. Vague, lacks foundation.  A. You would need to show me what you mean by that.  By MR. MILLER:  Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, by Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: Q. Drotty in the deal of the proving
7 "No similar analysis of recall bias has been conducted in the Canadian case-control study, 9 but the similarity of study designs between the 10 US and Canada make it likely that recall bias is 10 mean by that. 11 not a major concern in the Canadian study and 11 mot a major concern in the Canadian study and 12 NAPP as a whole." 12 Q. Dr. Chang's meta-analysis, are you 13 Do you agree or disagree? 13 familiar when I say that? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you don't include the proxy respondents, you get a 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 18 statement. 19 statement. 19 SP MR. MILLER: 20 Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.) 19 SP MR. MILLER: 21 MR. MILLER: 22 MR. MILLER: 23 marked as 23-12. 24 mean, I think I outline them all in my report, 24 and we can go through those. 25 Dector, I'm showing you what we've marked as 23-12. 26 Menually in the studies were conducted, with respect 25 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 25 it's very unlikely that the cancer cases that 26 MR. COPLE: Objection. Vague, lacks foundation. A. You would need to show me what you mean by that. 10 mean by that. 11 BY MR. MILLER: 20. Dor. Chang's meta-analysis, are you familiar when I say that? 24 A. Well, the one you showed me previously was also Dr. Chang's meta-analysis, are you familiar when I say that? 24 A. Well, the one you showed me previously was also Dr. Chang's meta-analysis. (Whereupon, Rider Exhibit 23-12, 5'24'I7 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.) 18 MR. MILLER: 20 Dector, I'm showing you what we've marked as 23-12. 27 A. Okay. 29 A. Yes, I have. 20 A. Yes, I have. 20 A. Yes, I have. 30 A. Yes, I have. 31 Hollingsworth? 31 Hollingsworth? 32 A. That is correct.
8 conducted in the Canadian case-control study, 9 but the similarity of study designs between the 10 US and Canada make it likely that recall bias is 11 not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 19 But I think even if you don't think 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 143  Page 145  Rullation.  8 foundation.  9 A. You would need to show me what you mean by that.  10 mean by that.  11 BY MR. MILLER:  Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  By MR. MILLER:  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  By MR. MILLER:  Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Q. Have you seen this document before  Page 143  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth?  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth?  A. That is correct.
9 but the similarity of study designs between the 10 US and Canada make it likely that recall bias is 11 not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 19 But I think even if you don't think 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 145  But just, for example, the timing of 2 when the studies were conducted, with respect 3 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that  Page 143  A. You would need to show me what you mean by that.  BYMR. MILLER:  Q. Dr. Chang's meta-analysis, are you  13 familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12,  5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of  Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER:  20 Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Q. Have you seen this document before
US and Canada make it likely that recall bias is not a major concern in the Canadian study and NAPP as a whole."  Do you agree or disagree?  A. Well, I mean, I think that in their own analyses of the NAPP they've demonstrated that recall bias was a problem, because when you don't include the proxy respondents, you get a different result. So I would disagree with that statement.  But I think even if you don't think at what into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  Do you agree or disagree?  12    Q. Dr. Chang's meta-analysis, are you familiar when I say that?  Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER:  Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER:  Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Page 145  A. Yes, I have.  Q. Have you seen this document before
11 not a major concern in the Canadian study and 12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 145  Page 145  Page 146  But just, for example, the timing of 2 when the studies were conducted, with respect 3 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that  11 By MR. MILLER: 20 Q. Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis, are you familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  6 (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of 19 Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: 22 Q. Doctor, I'm showing you what we've marked as 23-12. 23 A. Okay. 25 Q. Have you seen this document before
12 NAPP as a whole." 13 Do you agree or disagree? 14 A. Well, I mean, I think that in their 15 own analyses of the NAPP they've demonstrated 16 that recall bias was a problem, because when you 17 don't include the proxy respondents, you get a 18 different result. So I would disagree with that 19 statement. 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 145  Page 145  Page 146  Page 147  Page 145  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis, are you 13 familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  By MR. MILLER: 20 Doctor, I'm showing you what we've marked as 23-12.  A. Okay. 25 Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
Do you agree or disagree?  A. Well, I mean, I think that in their own analyses of the NAPP they've demonstrated that recall bias was a problem, because when you don't include the proxy respondents, you get a different result. So I would disagree with that statement.  But I think even if you don't think that recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and familiar when I say that?  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.) BY MR. MILLER: Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay. Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
A. Well, I mean, I think that in their own analyses of the NAPP they've demonstrated that recall bias was a problem, because when you don't include the proxy respondents, you get a different result. So I would disagree with that statement.  But I think even if you don't think that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  By MR. MILLER:  Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Q. Have you seen this document before  Page 143  Page 145  A. Well, the one you showed me previously was also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  By MR. MILLER:  Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth?  A. That is correct.
own analyses of the NAPP they've demonstrated that recall bias was a problem, because when you don't include the proxy respondents, you get a different result. So I would disagree with that different result. So I would disagree with that statement.  But I think even if you don't think that recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  Mass also Dr. Chang's meta-analysis.  (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: Q. Doctor, I'm showing you what we've marked as 23-12. A. Okay. Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
that recall bias was a problem, because when you don't include the proxy respondents, you get a different result. So I would disagree with that different result. So I would disagree with that statement.  But I think even if you don't think and that the recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  16 (Whereupon, Rider Exhibit 23-12, 5/24/17 Exponent paper, Meta-Analysis of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: Q. Doctor, I'm showing you what we've marked as 23-12. A. Okay. Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
don't include the proxy respondents, you get a different result. So I would disagree with that different result. So I wold Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.)  BY MR. MILLER: DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR. Dector, I'm showing you what we've marked as 23-12. A. Okay. DR.
different result. So I would disagree with that statement.  But I think even if you don't think that recall bias is an issue, there are a number of of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  of Glyphosate Use and Risk of Non-Hodgkin Lymphoma, was marked for identification.) BY MR. MILLER: Q. Doctor, I'm showing you what we've marked as 23-12. A. Okay. Q. Have you seen this document before  Page 143  (handing)? A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
19 Statement. 20 But I think even if you don't think 21 that recall bias is an issue, there are a number 22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  Page 143  Page 145  1 But just, for example, the timing of 2 when the studies were conducted, with respect 3 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that  19 Non-Hodgkin Lymphoma, was marked for identification.) 20 identification.) 21 BY MR. MILLER: 22 Q. Doctor, I'm showing you what we've marked as 23-12. 24 A. Okay. 25 Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth?  A. That is correct.
But I think even if you don't think that recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and fit's very unlikely that the cancer cases that  of other issues in these are a number 21 BY MR. MILLER: 22 Q. Doctor, I'm showing you what we've marked as 23-12. A. Okay. 25 Q. Have you seen this document before  Page 143  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
that recall bias is an issue, there are a number of other issues in these case control studies that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect when glyphosate went on the market, allowed for only a very, very short latency period, and for only a very, very short latency period, and it's very unlikely that the cancer cases that  Sy MR. MILLER:  Q. Doctor, I'm showing you what we've marked as 23-12.  A. Okay.  Q. Have you seen this document before  Page 145  A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
22 of other issues in these case control studies 23 that went into the pooling project data. I 24 mean, I think I outline them all in my report, 25 and we can go through those.  26 Page 143  Date of other issues in these case control studies 27 marked as 23-12. 28 A. Okay. 29 Whave you seen this document before  Page 143  Date of other issues in these case control studies 20 marked as 23-12. 21 A. Okay. 22 Whave you seen this document before  Page 145  Date of other issues in these case control studies are cased to marked as 23-12.  A. Okay. 25 Q. Have you seen this document before  Page 145  A. Yes, I have. Q. And provided to you by the attorneys 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that  A. That is correct.
that went into the pooling project data. I mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and for only a very, very short latency period, and that went into the pooling project data. I  a marked as 23-12.  A. Okay.  Chanding)?  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
mean, I think I outline them all in my report, and we can go through those.  Page 143  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and for it's very unlikely that the cancer cases that  A. Okay.  Page 145  A. Okay.  Chanding)?  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth?  A. That is correct.
25 and we can go through those.  Page 143  Page 145  But just, for example, the timing of when the studies were conducted, with respect to when glyphosate went on the market, allowed for only a very, very short latency period, and for it's very unlikely that the cancer cases that  Page 145  (handing)?  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth?  A. That is correct.
Page 143  Page 145  But just, for example, the timing of when the studies were conducted, with respect when glyphosate went on the market, allowed for only a very, very short latency period, and for only a very, very short latency period, and it's very unlikely that the cancer cases that  Page 145  A. Yes, I have.  Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
But just, for example, the timing of when the studies were conducted, with respect when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  1 (handing)? A. Yes, I have. Q. And provided to you by the attorneys at Hollingsworth? A. That is correct.
2 when the studies were conducted, with respect 3 to when glyphosate went on the market, allowed 4 for only a very, very short latency period, and 5 it's very unlikely that the cancer cases that 5 A. Yes, I have.  Q. And provided to you by the attorneys 4 at Hollingsworth? 5 A. That is correct.
to when glyphosate went on the market, allowed for only a very, very short latency period, and it's very unlikely that the cancer cases that  Q. And provided to you by the attorneys at Hollingsworth?  A. That is correct.
4 for only a very, very short latency period, and 4 at Hollingsworth? 5 it's very unlikely that the cancer cases that 5 A. That is correct.
5 it's very unlikely that the cancer cases that 5 A. That is correct.
6 arose during that study could have been due to 6 Q. Did you rely in part on this in
7 exposure by glyphosate. 7 formulating your opinions?
8 Q. So you take this study as support for 8 A. No, I did not. I reviewed the
9 your opinion that there is no association 9 meta-analysis, but it was not influential in
between glyphosate and Roundup; right? 10 coming up with my own independent expert
A. I wouldn't say that. You've just been 11 opinion. I felt like it was important to review
asking me if I agree with the authors' 12 the primary studies.
conclusions of the paper, and I, as I said, I
disagree with many of their conclusions because 14 information you rely upon in formulating your
15 I think they're looking at the wrong results. 15 opinions, this document will not be one of those
Q. Okay. And this is a new question. So 16 things?
17 I want to make sure I understand. 17 MR. COPLE: Objection. Argumentative,
When I think about Dr. Rider's 18 misstates the witness
opinions, Dr. Rider does not say the NAPP study  19  MR. MILLER: I'm just asking.
supports, or does say the NAPP study supports  20 MR. COPLE: Augmentative, misstates
21 her opinion there's no association? 21 the witness's testimony.
A. So I would say that the analyses in 22 A. So as I said, I have had access to
the NAPP study, particularly those that were not this document. I did review it and read it, but
presented in this in the manuscript but are 24 in formulating my own independent expert 25 available in those oral presentations, confirm 25 opinion, meta-analysis meta-analyses did not
25 available in those oral presentations, confirm 25 opinion, meta-analysis meta-analyses did not

	Page 146		Page 148
1	come into play because of the shortcomings of	1	involved in litigation before for some advice on
2	meta-analyses and observational studies. I	2	the hourly rate.
3	relied on only the primary studies in coming up	3	Q. And is that money going to you, or to
4	with my expert opinion.	4	the university where you're employed, or how
5	BY MR. MILLER:	5	does it work?
6	Q. I'm going to show you what we marked	6	A. I am employed as a consultant. So it
7	as Exhibit 23-13, and this is	7	is separate from my employment at Boston
8	(Whereupon, Rider Exhibit 23-13,	8	University.
9	1/28/16 retainer letter, was marked	9	Q. When you were retained, when did you
10	for identification.)	10	first learn that IARC had well, let's back
11	MR. COPLE: Before excuse me, Mike.	11	up.
12	Before we get into this, is this a good time for	12	You know what IARC is; right?
13	lunch, or do you want to wait?	13	A. I do, yes.
14	MR. MILLER: I have a couple more	14	Q. And what do those initials stand for?
15	minutes, if you don't mind.	15	A. The International Agency for Research
16	BY MR. MILLER:	16	on Cancer.
17	Q. Is that okay?	17	Q. And you are now, as we sit here,
18	A. Yes.	18	currently affiliated with Harvard?
19	Q. Okay. Here's 23-13. Identify that	19	A. I have an adjunct appointment at the
20	for me, please.	20	Harvard School of Public Health. My primary
21	A. I believe this is my retainer letter	21	appointment is at the Boston University School
22	from Hollingsworth.	22	of Public Health.
23	Q. And I want to read the first sentence.	23	Q. So for us, as laypeople, you sort of
24	"This letter confirms that Hollingsworth, on	24	work at Boston University now, but still have
25	behalf of Monsanto, has retained you to provide	25	some sort of affiliation that you just described
1	expert consulting services to HLLP" that's	1	with Harvard. Would that be
2	the Hollingsworth "for the purpose of	2	A. That is correct.
3	assisting Hollingsworth in representing Monsanto	3	Q. Okay. And the reason I bring up
4	in connection with potential and/or actual	4	Harvard, I think that's where Dr. Mucci is
5	litigation against Monsanto involving injuries	5	employed; is that right?
6	allegedly caused by Roundup and/or glyphosate."	6	A. Dr. Mucci's primary employment is at
7	Did I read that correctly?	7	the Harvard School of Public Health; correct.
8	A. Yes.	8	Q. Would it be fair to say she's a mentor
9	MR. COPLE: Objection. The document	9	of yours?
10	speaks for itself.	10	A. She was on my doctoral dissertation
11	BY MR. MILLER:	11	committee, yes.
12	Q. Were you advised of what assisting	12	Q. IARC has had numerous members of
13	Monsanto would involve when you were first	13	Harvard participate as members of IARC. Are you
14	contacted?	14	aware of that, or no?
15	A. I again, I don't recall the	15	MR. COPLE: Objection. Vague, lacks
16	specific conversations, but I was going to	16	foundation.
17	provide my own expert opinion on the	17	A. Yeah, I'm really not aware of who has
18	epidemiologic literature on glyphosate and NHL.	18	participated on a panel except beyond the one
19	Q. You've never been an expert before;	19	person I know who has participated.
1	right?	20	Q. And who is that?
20	115111;	21	A. Kathryn Wilson.
20 21	A I've never been an expert in a case		
21	A. I've never been an expert in a case	22	O And how do you know Dr Wilson?
21 22	before, no.	22	Q. And how do you know Dr. Wilson?  A. We were both students at Harvard at
21 22 23	before, no.  Q. How did you arrive at your hourly fee	23	A. We were both students at Harvard at
21 22	before, no.		

	Page 150		Page 152
1	to participate in IARC?	1	Q. It would be fair to say that Dr. Rider
2	A. Actually I'm not aware of the details	2	disagrees with the conclusion that IARC reached;
3	of how she was invited.	3	true?
4	Q. Have you ever been invited to	4	A. That is correct, I disagree with the
5	participate in IARC?	5	conclusions they came to in terms of reviewing
6	A. I have not been invited to participate	6	the epidemiologic literature on glyphosate and
7	on a panel.	7	NHL.
8	Q. When Volume 112, which relates in part	8	Q. Do you know a Tom Smith at Harvard
9	to glyphosate, was being voted upon and reported	9	School of Public Health?
10	by IARC, were you involved at all in the	10	A. I do not.
11	process?	11	Q. In 2012, are you aware Dr. Smith was a
12	A. I was not involved on the IARC panel,	12	member of an IARC panel?
13	no.	13	MR. COPLE: Objection. Lacks
14	Q. Were you following the issue at all?	14	foundation.
15	A. I was not aware that those meetings	15	A. I have no awareness of Dr. Smith, so I
16	were going on at the time, no.	16	wouldn't know anything about that.
17	Q. Okay. As you sit here now, you know	17	BY MR. MILLER:
18	that IARC voted that glyphosate was a 2A under	18	Q. I show you here this is marked as
19	IARC classification; right?	19	23-14.
20	MR. COPLE: Objection. Lacks	20	(Whereupon, Rider Exhibit 23-14, IARC
21	foundation.	21	Monographs List of Participants, was
22	A. IARC's conclusion, correct, was 2A,	22	marked for identification.)
23	yeah.	23	BY MR. MILLER:
24	BY MR. MILLER:	24	Q. And this is a list of participants for
25	Q. And what do you understand 2A to mean?	25	Volume 105 IARC monograph. You see Dr. Tom
	5 151		- 152
-	Page 151		Page 153
1	A. Again, I think I will get the wording	1	Smith, Harvard School of Public Health as a
2	wrong without looking at the IARC monograph, so		
3	Till 1	2	member? Do you see that?
4	I'd be happy me to tell you if we looked at	3	A. I see that.
4	that, but	3 4	A. I see that. MR. COPLE: Objection. The document
5	that, but Q. And we will. You don't remember right	3 4 5	A. I see that.  MR. COPLE: Objection. The document speaks for itself.
5 6	that, but  Q. And we will. You don't remember right now you don't remember right now.	3 4 5 6	<ul><li>A. I see that.</li><li>MR. COPLE: Objection. The document speaks for itself.</li><li>A. I see his name listed, yes.</li></ul>
5 6 7	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has	3 4 5 6 7	<ul><li>A. I see that.</li><li>MR. COPLE: Objection. The document speaks for itself.</li><li>A. I see his name listed, yes.</li><li>BY MR. MILLER:</li></ul>
5 6 7 8	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to	3 4 5 6 7 8	<ul> <li>A. I see that.</li> <li>MR. COPLE: Objection. The document speaks for itself.</li> <li>A. I see his name listed, yes.</li> <li>BY MR. MILLER:</li> <li>Q. But you don't know him?</li> </ul>
5 6 7 8 9	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are	3 4 5 6 7 8	<ul> <li>A. I see that.</li> <li>MR. COPLE: Objection. The document speaks for itself.</li> <li>A. I see his name listed, yes.</li> <li>BY MR. MILLER:</li> <li>Q. But you don't know him?</li> <li>A. No, I do not.</li> </ul>
5 6 7 8 9	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?	3 4 5 6 7 8 9	<ul> <li>A. I see that.</li> <li>MR. COPLE: Objection. The document speaks for itself.</li> <li>A. I see his name listed, yes.</li> <li>BY MR. MILLER:</li> <li>Q. But you don't know him?</li> <li>A. No, I do not.</li> <li>MR. COPLE: Objection. Asked and</li> </ul>
5 6 7 8 9 10	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative,	3 4 5 6 7 8 9 10	<ul> <li>A. I see that.</li> <li>MR. COPLE: Objection. The document speaks for itself.</li> <li>A. I see his name listed, yes.</li> <li>BY MR. MILLER:</li> <li>Q. But you don't know him?</li> <li>A. No, I do not.</li> <li>MR. COPLE: Objection. Asked and answered.</li> </ul>
5 6 7 8 9 10 11 12	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.	3 4 5 6 7 8 9 10 11	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER:
5 6 7 8 9 10 11 12 13	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:	3 4 5 6 7 8 9 10 11 12	<ul> <li>A. I see that.     MR. COPLE: Objection. The document speaks for itself.     A. I see his name listed, yes.</li> <li>BY MR. MILLER:     Q. But you don't know him?     A. No, I do not.     MR. COPLE: Objection. Asked and answered.</li> <li>BY MR. MILLER:     Q. I apologize for asking the same</li> </ul>
5 6 7 8 9 10 11 12 13	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.	3 4 5 6 7 8 9 10 11 12 13 14	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question.
5 6 7 8 9 10 11 12 13 14 15	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that	3 4 5 6 7 8 9 10 11 12 13 14 15	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of
5 6 7 8 9 10 11 12 13 14 15	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate	3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website?
5 6 7 8 9 10 11 12 13 14 15 16 17	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks
5 6 7 8 9 10 11 12 13 14 15 16 17	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague. BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague. BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way criticize IARC as part of your expert process	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation. A. Yes, I'm aware that they have a
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague. BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way criticize IARC as part of your expert process here?	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation. A. Yes, I'm aware that they have a website.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way criticize IARC as part of your expert process here?  MR. COPLE: Objection. Argumentative.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation. A. Yes, I'm aware that they have a website. BY MR. MILLER:
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way criticize IARC as part of your expert process here?  MR. COPLE: Objection. Argumentative.  A. I am critical of IARC's conclusions in	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation. A. Yes, I'm aware that they have a website. BY MR. MILLER: Q. Are you aware that they published
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way criticize IARC as part of your expert process here?  MR. COPLE: Objection. Argumentative.  A. I am critical of IARC's conclusions in reviewing the data on the epidemiologic data	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation. A. Yes, I'm aware that they have a website. BY MR. MILLER: Q. Are you aware that they published information concerning IARC's findings about
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	that, but  Q. And we will. You don't remember right now you don't remember right now.  One of Monsanto's goals since IARC has determined that glyphosate is a 2A has been to attempt to invalidate and discredit IARC. Are you aware of that?  MR. COPLE: Objection. Argumentative, lacks foundation, vague.  BY MR. MILLER:  Q. You can answer.  A. I have no awareness of that relationship. My role in this was to evaluate the epidemiologic literature.  Q. So you're not going to in any way criticize IARC as part of your expert process here?  MR. COPLE: Objection. Argumentative.  A. I am critical of IARC's conclusions in	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. I see that. MR. COPLE: Objection. The document speaks for itself. A. I see his name listed, yes. BY MR. MILLER: Q. But you don't know him? A. No, I do not. MR. COPLE: Objection. Asked and answered. BY MR. MILLER: Q. I apologize for asking the same question. You're aware that Harvard School of Public Health has a website? MR. COPLE: Objection. Vague, lacks foundation. A. Yes, I'm aware that they have a website. BY MR. MILLER: Q. Are you aware that they published

	Page 154		Page 156
1	foundation.	1	Q. The first bullet point states, "In
2	A. I was not aware of that, no.	2	this report, glyphosate was classified as
3	BY MR. MILLER:	3	'probably carcinogenic to humans' (Group 2A)."
4	Q. We'll take a look at it. Here's what	4	Do you see that, ma'am?
5	we've marked as Exhibit 23-15.	5	MR. COPLE: Same objection.
6	(Whereupon, Rider Exhibit 23-15,	6	A. I do see that, yes.
7	Document from Harvard T.H. Chan	7	BY MR. MILLER:
8	website titled Research Roundup, was	8	Q. And do you disagree that glyphosate is
9	marked for identification.)	9	probably carcinogenic to humans for
10	BY MR. MILLER:	10	non-Hodgkin's lymphoma?
11	Q. Take a minute to look at that. I have	11	A. As I said, I disagree with IARC's
12	a few questions.	12	conclusions of the epidemiologic studies on
13	(Witness reviewing document.)	13	glyphosate and NHL.
14	A. Okay.	14	Q. This Harvard publication goes on to
15	BY MR. MILLER:	15	say, "Specifically, increased risk of
16	Q. All right. Let's go to the first	16	non-Hodgkin's lymphoma was consistent across
17	page.	17	case-control studies of occupational exposure in
18	You're familiar with this website,	18	the USA, Canada, and Sweden."
19	right?	19	That's what you observed in the
20	A. I mean, it looks like this was taken	20	studies that we've gone over here this morning;
21	somewhere from the Harvard School of Public	21	right?
22	Health website, so	22	MR. COPLE: Objection. The document
23	Q. And you've been a member of the	23	speaks for itself, misstates the witness's prior
24	Harvard School of Public Health, right?	24	testimony.
25	A. I was a student there and had a	25	A. I think I've been I've stated
	Page 155		Page 157
1	post-doc appointment there. And then, as I	1	repeatedly that I do not see those case control
1 2	post-doc appointment there. And then, as I mentioned, more recently I have an adjunct	1 2	repeatedly that I do not see those case control studies as showing evidence of an increased
	mentioned, more recently I have an adjunct		repeatedly that I do not see those case control studies as showing evidence of an increased association between glyphosate and NHL because
2	mentioned, more recently I have an adjunct faculty appointment there.	2	studies as showing evidence of an increased
2	mentioned, more recently I have an adjunct	2	studies as showing evidence of an increased association between glyphosate and NHL because
2 3 4	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston,	2 3 4	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.
2 3 4 5	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?	2 3 4 5	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:
2 3 4 5 6	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in	2 3 4 5 6	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement
2 3 4 5 6 7	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.	2 3 4 5 6 7	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?
2 3 4 5 6 7 8	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at	2 3 4 5 6 7 8	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.
2 3 4 5 6 7 8 9	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?	2 3 4 5 6 7 8	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do. Q. Okay. And it says at the bottom
2 3 4 5 6 7 8 9	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.	2 3 4 5 6 7 8 9	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do. Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential
2 3 4 5 6 7 8 9 10	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I	2 3 4 5 6 7 8 9 10	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two
2 3 4 5 6 7 8 9 10 11	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?	2 3 4 5 6 7 8 9 10 11	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA,
2 3 4 5 6 7 8 9 10 11 12 13	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.	2 3 4 5 6 7 8 9 10 11 12 13	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their
2 3 4 5 6 7 8 9 10 11 12 13	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this	2 3 4 5 6 7 8 9 10 11 12 13 14	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce
2 3 4 5 6 7 8 9 10 11 12 13 14 15	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."
2 3 4 5 6 7 8 9 10 11 12 13 14 15	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the page, "In March, 2015, 17 experts from 11	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying out of the toxicology end of this whole thing?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the page, "In March, 2015, 17 experts from 11 countries assessed the carcinogenicity of five	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying out of the toxicology end of this whole thing? Right?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the page, "In March, 2015, 17 experts from 11 countries assessed the carcinogenicity of five pesticides including glyphosate at the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying out of the toxicology end of this whole thing? Right?  MR. COPLE: Objection. Vague.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the page, "In March, 2015, 17 experts from 11 countries assessed the carcinogenicity of five pesticides including glyphosate at the International Agency for Research on Cancer."	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying out of the toxicology end of this whole thing? Right?  MR. COPLE: Objection. Vague.  A. That's right, I'm not an expert in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the page, "In March, 2015, 17 experts from 11 countries assessed the carcinogenicity of five pesticides including glyphosate at the International Agency for Research on Cancer."  Do you see that?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying out of the toxicology end of this whole thing? Right?  MR. COPLE: Objection. Vague.  A. That's right, I'm not an expert in toxicology.  BY MR. MILLER:  Q. And did not factor any of the non-epi
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	mentioned, more recently I have an adjunct faculty appointment there.  Q. In March of 2015 were you at Boston, or were you over at Harvard?  A. I moved to Boston University in October of 2015.  Q. Okay. So in March you were still at Harvard?  A. That's correct.  Q. Were you finishing up a fellowship, I guess?  A. No, I was a faculty member.  Q. Yes, ma'am. Let's look at this report.  It says in the bottom half of the page, "In March, 2015, 17 experts from 11 countries assessed the carcinogenicity of five pesticides including glyphosate at the International Agency for Research on Cancer."  Do you see that?  A. I do.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	studies as showing evidence of an increased association between glyphosate and NHL because of the limitations of those studies.  BY MR. MILLER:  Q. So you disagree with this statement then?  A. I do.  Q. Okay. And it says at the bottom bullet point, "Evidence suggested the potential mechanisms for cancer were primarily through two pathways: First, the chemicals damaged DNA, which caused mutations or alterations in their gene codes. Second, glyphosate could induce oxidative stress."  And my question is, are you staying out of the toxicology end of this whole thing? Right?  MR. COPLE: Objection. Vague.  A. That's right, I'm not an expert in toxicology.  BY MR. MILLER:

Page 158 Page 160 1 literature, and I focused on the epidemiologic 1 systematic bias or the lack of internal validity 2 evidence. 2 in those studies, and that they underestimated 3 Q. Yes. All right. Let's move on. 3 the results from the case -- the cohort study, 4 4 I'm sorry, the Agricultural Health Study. I saw in your review materials --5 5 correct me if I'm wrong -- but you did see the BY MR. MILLER: 6 6 list of participants in that IARC conclusion of Q. And the Agricultural Health Study is a 7 7 very important piece of what you're formulating Volume 112? 8 A. So somewhere, I believe it's in that 8 your opinions on; is that a fair statement? 9 monograph, there is a list of who participated 9 A. Yes, it is. 10 10 in the meeting, yes, and I did look at that. Q. And Aaron Blair who is listed here, 11 Q. Here's Exhibit 23-16, which I believe 11 he's one of the authors of the Agricultural 12 is a list of participants for Volume 112. 12 Health Study, isn't he? 13 (Whereupon, Rider Exhibit 23-16, IARC 13 A. That is correct. 14 14 Monographs Volume 112 List of Q. And he's also the overall chairman of 15 Participants, was marked for 15 the IARC group that found glyphosate a probable 16 identification.) 16 carcinogen; right? 17 A. Okay. 17 A. Yes. It appears that way, yes. BY MR. MILLER: 18 Q. So wouldn't it be fair to say that 18 19 19 Q. Do you know any of these folks? Aaron Blair is in a better position to evaluate 20 (Witness reviewing document.) 20 the evidence as the author of the AHS study 21 A. I do not. Many of them I have now 21 rather than someone who had to be brought in 22 read some of the publications for which they 22 later and hadn't looked at it? Isn't that fair? 23 MR. COPLE: Objection. Argumentative. 23 were authors. But other than that, I do not 24 know any of them. 24 A. I really couldn't speculate as to why 25 BY MR. MILLER: 25 the more -- the updated results of the Page 159 Page 161 1 1 Agricultural Health Study weren't published or Q. Just because I am a layperson, and as 2 2 a layperson, you already told us you disagree weren't included in their review. I just know 3 with these 17 people. Could you tell me if were 3 that in my review of all of the epidemiology, 4 sitting in a coffee shop, how did they get it 4 there is -- I disagree with the conclusion that 5 5 wrong and you get it right? there is evidence that glyphosate is a probable 6 6 human carcinogen. MR. COPLE: Objection. Argumentative. 7 7 BY MR. MILLER: BY MR. MILLER: 8 8 Q. I'm just asking. Q. Are you aware whether Dr. Blair is one 9 MR. COPLE: Argumentative, lacks 9 of the authors of the NAPP study that you 10 10 referred to and relied upon? foundation. 11 A. So, first of all, I think it's 11 A. I don't recall whether he's an author. 12 12 Q. Are you aware whether he's one of the important to point out that they did not have 13 13 access to some of the more recent data on authors of the unpublished Agricultural Health 14 glyphosate and NHL, so we don't know what 14 Study that you also relied on? 15 15 conclusion they would have come to had they A. He is listed an author at least on the 16 reviewed that additional data. I mentioned, I 16 draft that I have access to, yes. 17 17 Q. Now, are you aware that even though he think, that strengthens the existing evidence 18 substantially. 18 is an author on each of those, he has testified 19 19 under oath that with that new data, he still However, they did review the Swedish believes that glyphosate is a probable human 20 20 and the North American case control studies as 21 21 carcinogen for non-Hodgkin's lymphoma? Are you well as the Agricultural Health Study, the only 22 cohort study that's -- that looks at glyphosate 22 aware of that? 23 and NHL and, in my view, I believe that they 23 MR. COPLE: Objection. Lacks 24 overinterpreted the results of the case control 24 foundation. 25 25 A. As I said, I haven't reviewed his studies, not taking into account all of the

# Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 43 of 114

# Confidential - Subject to Protective Order

	Page 162		Page 164
1	testimony, so I can't be sure that's what he	1	what Dr. Blair, the author of the AHS study,
2	believes.	2	says about these issues?
3	MR. COPLE: Let me interrupt you. How	3	MR. COPLE: Objection. Vague.
4	long do you want to go?	4	A. So I've reviewed two papers that
5	MR. MILLER: Yeah, if you want to have	5	Dr Blair at least two that he's been a
6	lunch now, sure. Sure. Let's take a break.	6	co-author on, both from the Agricultural Health
7	THE VIDEOGRAPHER: Going off the	7	Study. And so I don't really see it necessary
8	record. The time is 12:32.	8	to have a conversation with him, because I can
9	(Whereupon, a luncheon recess was	9	review the data that's available in those two
10	taken.)	10	manuscripts.
11		11	BY MR. MILLER:
12		12	Q. You and I talked earlier about how
13		13	it's accepted now that tobacco causes lung
14		14	cancer.
15		15	You generally remember that line of
16		16	questioning?
17		17	A. Yes, I do.
18		18	Q. And you would agree with me that a
19		19	barrier to acceptance of that by the scientific
20		20	community was the tobacco companies' influence;
21		21	right?
22		22	MR. COPLE: Objection. Argumentative,
23		23	lacks foundation.
24		24	A. Again, I could evaluate the
25		25	epidemiologic studies on tobacco and lung
	Page 163		Page 165
1	Page 163 AFTERNOON SESSION	1	Page 165 cancer, but all of the other factors, I'm not an
1 2		1 2	
			cancer, but all of the other factors, I'm not an
2	AFTERNOON SESSION	2	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before
2	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record.	2 3	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER:
2 3 4	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20.	2 3 4	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before
2 3 4 5	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the	2 3 4 5	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.
2 3 4 5 6	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line.	2 3 4 5 6	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER:
2 3 4 5 6 7	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you	2 3 4 5 6 7	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER: Q that tobacco companies were a
2 3 4 5 6 7 8	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there?	2 3 4 5 6 7 8	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that
2 3 4 5 6 7 8	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for.	2 3 4 5 6 7 8 9 10	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER:  Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco?  MR. COPLE: Objection. Vague, lacks foundation.
2 3 4 5 6 7 8 9	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER:  Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco?  MR. COPLE: Objection. Vague, lacks
2 3 4 5 6 7 8 9 10	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for.	2 3 4 5 6 7 8 9 10	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER:  Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco?  MR. COPLE: Objection. Vague, lacks foundation.
2 3 4 5 6 7 8 9 10 11	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you.	2 3 4 5 6 7 8 9 10 11 12 13 14	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER:  Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation.  A. I don't recall, but I couldn't be certain, no.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you. Q. Before the magic of these machines, I	2 3 4 5 6 7 8 9 10 11 12 13	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no.  BY MR. MILLER: Q. Let's took a look at it. Here's
2 3 4 5 6 7 8 9 10 11 12 13 14	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you. Q. Before the magic of these machines, I just looked at my last question, I asked you if	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you. Q. Before the magic of these machines, I	2 3 4 5 6 7 8 9 10 11 12 13 14 15	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER:  Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco?  MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no.  BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17.  (Whereupon, Rider Exhibit 23-17,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you. Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still believes that glyphosate is a probable human	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	cancer, but all of the other factors, I'm not an expert on those.  BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection.  BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no.  BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you. Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20. MR. COPLE: Reconfirm who is on the line. MR. MILLER: Mr. Traverse, are you there? MR. TRAVERSE: I'm here. MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER: Q. Dr. Rider, you had a good lunch? A. Yes. Thank you. Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still believes that glyphosate is a probable human	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot Camp, 1/4/12, was marked for
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20.  MR. COPLE: Reconfirm who is on the line.  MR. MILLER: Mr. Traverse, are you there?  MR. TRAVERSE: I'm here.  MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER:  Q. Dr. Rider, you had a good lunch?  A. Yes. Thank you.  Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still believes that glyphosate is a probable human carcinogen, and you told me you hadn't reviewed	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot Camp, 1/4/12, was marked for identification.)
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20.  MR. COPLE: Reconfirm who is on the line.  MR. MILLER: Mr. Traverse, are you there?  MR. TRAVERSE: I'm here.  MR. MILLER: Anyone else on the phone?  All right. All present and accounted for.  BY MR. MILLER:  Q. Dr. Rider, you had a good lunch?  A. Yes. Thank you.  Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still believes that glyphosate is a probable human carcinogen, and you told me you hadn't reviewed his testimony, so I can't be sure what he	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot Camp, 1/4/12, was marked for identification.) BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20.  MR. COPLE: Reconfirm who is on the line.  MR. MILLER: Mr. Traverse, are you there?  MR. TRAVERSE: I'm here.  MR. MILLER: Anyone else on the phone? All right. All present and accounted for. BY MR. MILLER:  Q. Dr. Rider, you had a good lunch?  A. Yes. Thank you.  Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still believes that glyphosate is a probable human carcinogen, and you told me you hadn't reviewed his testimony, so I can't be sure what he believes.  Do you remember that general question?  A. Yes, I do. Yeah, I don't know	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot Camp, 1/4/12, was marked for identification.) BY MR. MILLER: Q. And is that a PowerPoint prepared by
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	AFTERNOON SESSION  THE VIDEOGRAPHER: Back on the record. The time is 1:20.  MR. COPLE: Reconfirm who is on the line.  MR. MILLER: Mr. Traverse, are you there?  MR. TRAVERSE: I'm here.  MR. MILLER: Anyone else on the phone?  All right. All present and accounted for.  BY MR. MILLER:  Q. Dr. Rider, you had a good lunch?  A. Yes. Thank you.  Q. Before the magic of these machines, I just looked at my last question, I asked you if you were aware of whether Dr. Blair still believes that glyphosate is a probable human carcinogen, and you told me you hadn't reviewed his testimony, so I can't be sure what he believes.  Do you remember that general question?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	cancer, but all of the other factors, I'm not an expert on those. BY MR. MILLER: Q. Have you ever said that before MR. COPLE: Objection. BY MR. MILLER: Q that tobacco companies were a barrier to the acceptance of the notion that lung cancer is caused by tobacco? MR. COPLE: Objection. Vague, lacks foundation. A. I don't recall, but I couldn't be certain, no. BY MR. MILLER: Q. Let's took a look at it. Here's Exhibit 23-17. (Whereupon, Rider Exhibit 23-17, PowerPoint titled Lung Cancer, Molecular Pathology of Cancer Boot Camp, 1/4/12, was marked for identification.) BY MR. MILLER:

42 (Pages 162 to 165)

contributed to at the Dana Farber Cancer Institute.  Q. And this was January 4, 2012, right? A. That is correct, yes. Q. Turn with me to page – and I'm afraid the pages arent marked, so I can show you the pages that I'm referring to. It's "Barriers to acceptance of smoking-lung cancer relationship." A. Yes, I found that actually. Q. "Ecological data - other plausible alternatives" was one issue that you raised: right? A. Mm-lmm. Q. "Smoking common in scientific community" was another issue; right? A. Mm-lmm. Q. "Smoking common in scientific community" was another issue; right? A. Mm-lmm. Q. "Scientists smoked, and they had trouble trying to believe that they were doing something that was bad for them? Q. MR. COPLE: Objection. Lacks foundation. Q. BY MR. MILLER: Q. That's what you meant, right? A. Honestly it's been years, five years  Page 167 actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I builted there "Smoking common in the scientific community." BY MR. MILLER: Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationships was the influence of tobacco companies; right? A. Hopefully, yes. Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right? Q. I think it is, no, it's actually two pages before that, four pages before at the foundation as a cigarrete ad. What's the importance of that in your lecture? A. Honestly I don't remember because, as		Page 166		Page 168
Q. And this would would be the next page after the "Barriers to acceptance-smoke and lung cancer relationship," you did an entire page of "A new model of causatity," and you typed out the Bradford-Hill guidelines. The Bradford-Hill guidelines that were presented. The Bradford-Hill guidelines that were pre	1	contributed to at the Dana Farber Cancer	1	I said, it was five over five years ago since
be the next page after the "Barriers to acceptance-smoke and lung cancer relationship," you did an entire page on "A new model of causality," and you typed out the Bradford-Hill guidelines. right. mad ann. A. So, yes, the title of the slide is. "A nomental right?  A. Yes, I found that actually.  Q. "Cacological data - other plausible alternatives" was one issue that you raised; right?  A. Mm-hmm.  A. Mm-hmm.  A. Mm-hmm.  A. Mm-hmm.  G. "Smoking common in scientific community" was another issue; right?  MR. COPLE: Objection. Lacks foundation.  BY MR. MILLER:  G. That's what you meant, right?  A. Honestly it's been years, five years  Page 167  actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community."  BY MR. MILLER:  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies: right?  A. Hopefully, yes.  Q. And a tith is boot camp on cancer, you wrote, this is so you can find it there.  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And a tothis boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. You point out a 1933 Journal of wrote, this is so you can find it there.  A. What's the importance of that in you lecture?  A. What's the importance of that in you lecture?  A. What's the importance of that in you lecture?  A. By MR. MILLER:  A. Inducence of that in you lead to the relationship, you did an entire page on "A new model of causality," and then I summarize the Bradford-Hill guidelines. Tight and then I summarize the Bradford-Hill guidelines. Tight and the Bradford-Hill came along when studies of epidemiology started to focus on chronic disease rather than infectious disease, on chronic disease raded to focus on chronic disease rather than infectious disease model of causation, there were now there new guidelines that were reno	2	Institute.	2	
5 Q. Turn with me to page - and I'm afraid the pages aren't marked, so I can show you the 7 pages that I'm referring to. It's Barriers to 8 acceptance of smoking-lung cancer relationship." A Yes, I found that actually. 10 Q. "Ecological data - other plausible alternatives" was one issue that you raised; right? 13 A. Mm-hmm. 14 Q. Smoking common in scientific community" was another issue; right? 15 Community "was another issue; right? 16 A. Mm-hmm. 17 Q. Scientists smoked, and they had trouble trying to believe that they were doing something that was bad for them? 18 you have been been been been been been been be	3	· · · · · · · · · · · · · · · · · · ·	3	
the pages aren't marked, so I can show you the pages that I'm referring to. It's "Barriers to a acceptance of smoking-lung cancer relationship."  A Yes, I found that actually.  Q "Ecological data - other plausible alternatives" was one issue that you raised; right?  A Mm-hmm.  A Mm-hmm.  A Mm-hmm.  A Mm-hmm.  Q "Smoking common in scientific community" was another issue; right?  A Mm-hmm.  Q Scientists smoked, and they had common in scientific community" was another issue; right?  MR. COPLE: Objection. Lacks of foundation.  BY MR. MILLER:  Q That's what you meant, right?  A Honestly it's been years, five years  Page 167  a catually since I – or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there  "Smoking common in the scientific community."  BY MR. MILLER:  Q Hopefully less common now?  A Hopefully, yes.  Q And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung or ancer relationship was the influence of tobacco context, his; so, at I shat after this?  Q And at this boot camp on cancer, you wrote, this is – so you can find it there.  A Is that after this?  Q And at this boot camp on cancer, you wrote, this is – so you can find it there.  A Is that after this?  Q O You point out a 1933 Journal of words was the water you drink, and practically untouched by human hands," as a cigarette ad.  A What's the importance of that in your lecture?  You're familiar with Harvard School of of a dat what's the importance of that in your lecture?	4	· •		= -
7 pages that I'm referring to. Its 'Barriers to acceptance of smoking-lung cancer relationship." 9 A. Yes, I found that actually. 9 A. So yes, the title of the slide is "A new model of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the armodel of causality, "and then I summarize the armodel of causality," and then I summarize the su				
8 acceptance of smoking-Jung cancer relationship." 9 A. Yes, I found that actually. Q. "Ecological data - other plausible alternatives" was one issue that you raised; right? 13 A. Mm-hmm. 14 Q. "Smoking common in scientific community" was another issue; right? 15 community" was another issue; right? 16 A. Mm-hmm. 17 Q. Scientists smoked, and they had trouble trying to believe that they were doing something that was bad for them? 18 trouble trying to believe that they were doing something that was bad for them? 20 MR. COPLE: Objection. Lacks foundation. 21 BY MR. MILLER: 22 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 26 actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." 25 BY MR. MILLER: 26 Q. Hopefully less common now? 27 A. Hopefully, yes. 38 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right? 26 A. Influence of tobacco companies is one of the bullet points, yes. 27 A. Is that after this? 28 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco or oppanies is one of the bullet points, yes. 28 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco or oppanies is one of the bullet points, yes. 29 Q. And at this boot camp on cancer, you wrote, this isso you can find it there. 30 Q. And this boot camp on cancer, you wrote, this is -so you can find it there. 31 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill cirteria that is required for causaling, and then I summarize the particular why I was presenting this. I was presented. 31 C. Q. And then I was the influence of tobacco companies is one of the particul				
A. Yes, I found that actually. Q. "Ecological data other plausible alternatives" was one issue that you raised; right? 12 right? 13 A. Mm-hmm. 14 Q. "Smoking common in scientific community" was another issue; right? 15 community" was another issue; right? 16 A. Mm-hmm. 17 Q. Scientists smoked, and they had trouble trying to believe that they were doing something that was bad for them? 18 trouble trying to believe that they were doing something that was bad for them? 19 something that was bad for them? 20 MR. COPLE: Objection. Lacks foundation. 21 foundation. 22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 26 A. Honestly it's been years, five years 27 A. Hopefully, yes. 28 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies is one of the bullet points, yes. 29 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies is one of the bullet points, yes. 30 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies is one of the bullet points, yes. 31 Q. And at this boot camp on cancer, you wrote, this is -so you can find it there. 32 Q. And this kis no, it's actually two pages before that, four pages before. 33 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. 44 Q. And at this boot camp on cancer, you wrote, this is -so you can find it there. 45 Q. I think it is. I was table to force companies; is one of the bullet points, yes. 46 Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer? 48 Q. And at this boot camp on cancer, you wrote, this is -so you can find it there. 49 Q. You point out a 1933 Journal of 20 Q. You point out a 1933 Journal of 21 American Medical Ad t				
10 Q. "Ecological data - other plausible alternatives" was one issue that you raised; 12 right? 13 A. Mm-hmm. 14 Q. "Smoking common in scientific 15 community" was another issue; right? 15 A. Mm-hmm. 16 A. Mm-hmm. 17 Q. Scientists smoked, and they had 18 trouble trying to believe that they were doing 19 something that was bad for them? 20 MR. COPLE: Objection. Lacks 19 foundation. 21 BY MR. MILLER: 22 D. That's what you meant, right? 22 BY MR. MILLER: 23 Q. That's what you meant, right? 23 A. Honestly it's been years, five years 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 25 A. Honestly it's been years, five years 26 Q. Hopefully less common now? 4 A. Hopefully, yes. 8 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right? 26 A. Influence of tobacco companies is one of the bullet points, yes. 14 Q. And at this boot camp on cancer, you wrote, this isso you can find it there. 15 work as the water you drinkand practically 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 What's the importance of that in your lecture? 4 Wha				
the Bradford-Hill guidelines.  A. Mm-hmm.  A. Mm-hmm.  A. Mm-hmm.  A. Mm-hmm.  A. Mm-hmm.  B. Community" was another issue; right?  A. Mm-hmm.  Community" was another issue; right?  A. Mm-hmm.  B. Community" was another issue; right?  Community as mancher issue; right?  Community as mancher issue; right?  Community was another issue; right?  A. Mm-hmm.  Community was another issue; right?  A. Mm-hmm.  Community" was another issue; right?  A. Mm-hmm.  Community" was another issue; right?  Community "was another issue; rig		<del>-</del>		· · · · · · · · · · · · · · · · · · ·
right?  A. Mm-hmm. Q. "Smoking common in scientific community" was another issue; right? A. Mm-hmm. 17 Q. Scientists smoked, and they had trouble trying to believe that they were doing something that was bad for them? 20 MR. COPLE: Objection. Lacks 21 foundation. 21 BY MR. MILLER: 22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years  Page 167  1 actually since I or more since I've looked at this, so it's a little hard to judge out of 3 context. But it is true that I bulleted there 4 "Smoking common in the scientific community." 5 BY MR. MILLER: 6 Q. Hopefully, yes. 6 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung of the bullet points, yes. 14 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung of the bullet points, yes. 15 wrote, this is so you can find it there. 16 A. Is that after this? 17 Q. I think it is. No, it's actually two pages before that, four pages before. 18 pages before that, four pages before. 18 pages before that, four pages before. 18 pages before that, four pages before. 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 24 What's the importance of that in your lecture? 24 What's the importance of that in your lecture? 25 when the man infectious disease rather than infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease rather than infectious disease, so that was the context. So rather than an infectious disease rather than infectious disease rather than infectious disease rather than infectious disease rather				*
A. Mm-hmm.  B. Condex, and they had trouble trying to believe that they were doing something that was bad for them?  MR. COPLE: Objection. Lacks to make the manner of the bullet points of the bullet points, was not the size that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco of the bullet points, yes.  A. Is that after this?  A. Is that after this?  A. O. And at this boot camp on cancer, you with risk of cancer, was marked for identification.  A. O. Away.  A. Mm-hmm.  A. Mm-hmm.  B. Community "was another issue; right?  A. Mm-hmm.  A. Mm-hmm.  B. Community "was another issue; right?  A. Mm-hmm.  Community "was another issue; right?  A. Moleive that was bad for them?  B. Was, but I'm not sure.  C. A. Aloyou, list the guidelines, the various points that are sometimes used in the Bradford-Hill criteria.  A. Is that after this?  A. Is that after this?  A. O. And this boot camp on cancer, you wrote, this isso you can find it there.  A. O. And way.  A. O. You point out a 1933 Journal of the pages before that, four pages before.  A. What's the importance of that in your lecture?  A. What's the importance of that in your lecture?  A. What's the importance of that in your lecture?  A. Minerian Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad.  A. What's the importance of that in your lecture?  A. Was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill criteria.  Q. And you list the guideline, right?  A. Hopestuly, yes.  Q. And you list the guideline, right?  A. Bobelieve these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation, correct.		•		-
2. Second the second of the bullet points, yes.  2. A. Hopefully, yes.  2. Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  2. Q. And this boot camp on cancer, you wrote, this isso you can find it there.  3. Q. And this boot camp on cancer, you wrote, this isso you can find it there.  4. Q. And this boot camp on cancer, you wrote, this isso you can find it there.  5. Q. You point out a 1933 Journal of 20 American Medical Ad that stated, "Just as pure as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 4 What's the importance of that in your lecture?  2. A. Mom. Mm.  2. D. Scientists smoked, and they had trouble trying to believe that they were doing talking about how the Bradford-Hill criterious of epidemiology started to focus on chronic disease rather than infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather		•		-
talking about how the Bradford-Hill came along when studies of epidemiology started to focus on chronic disease rather than infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease, so that was the context. So rather than an infectious disease model of causation, there were now these new guidelines that were presented.  2 BY MR. MILLER: 2 Q. That's what you meant, right? 2 A. Honestly it's been years, five years  2 Page 167  1 actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there  2 this, so it's a little hard to judge out of context. But it is true that I bulleted there  3 was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation, correct.  Q. And then as you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18.  Q. You point out a 1933 Journal of 20 identification.)  BY MR. MILLER:  as the water you drinkand practically an untouched by human hands," as a cigarette ad.  What's the importance of that in your lecture?				- I
16 A. Mm-hmm. 17 Q. Scientists smoked, and they had 18 trouble trying to believe that they were doing 19 something that was bad for them? 20 MR. COPLE: Objection. Lacks 21 foundation. 22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 26 A. Honestly it's been years, five years 27 actually since I or more since I've looked at 28 this, so it's a little hard to judge out of 29 actually since of more since I've looked at 29 a WR. MILLER: 20 a Context. But it is true that I bulleted there 21 a more fixed by Mr. Miller and the scientific community." 22 by MR. MILLER: 23 a Context. But it is true that I bulleted there 24 "Smoking common in the scientific community." 25 BY MR. MILLER: 26 Q. Hopefully less common now? 27 A. Hopefully, yes. 28 Q. And you list the guidelines, the 29 a Cand you wrote here in January, 2012, 30 that a barrier to acceptance of smoking-lung 31 cancer relationship was the influence of tobacco 32 of the bullet points, yes. 33 of the bullet points, yes. 44 Q. And then as you and I discussed, the 35 on that was the context. So rather than infectious disease model of causation, there 36 were now these new guidelines that were 37 presented. 38 Padford-Hill criteria came about in the late 39 was, but I'm not sure. 40 Q. And you list the guidelines, the 41 various points that are sometimes used in the 42 Bradford-Hill guideline, right? 43 A. Bo I believe these are, again, just 44 be Bradford-Hill guideline, right? 54 A. Honestly I can't recall what the date 55 A. Honestly I can't recall what the date 65 Q. And you list the guidelines, the 66 Various points that are sometimes used in the 67 Bradford-Hill griteria came about in the late 67 Q. And then as you and I discussed, the 68 Q. And you wrote here in January, 2012, 69 that a barrier to acceptance of smoking-lung 60 cancer relationship was the influence of tobacco 61 companies; right? 61 Q. And then as you and I discussed, the 62 only one that's actually is the				
trouble trying to believe that they were doing something that was bad for them?  MR. COPLE: Objection. Lacks 20 mR. COPLE: Objection. Lacks 21 foundation.  BY MR. MILLER: 22 PMR. MILLER: 23 Q. That's what you meant, right? 23 MR. COPLE: Objection. Argumentative. 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 25 A. Honestly it's been years, five years 26 A. Honestly it is true that I bulleted there 27 this, so it's a little hard to judge out of 28 Context. But it is true that I bulleted there 39 MR. MILLER: 30 Q. And you wrote here in January, 2012, 31 G. A. Hopefully, yes. 32 G. And you wrote here in January, 2012, 31 G. A. Hopefully, yes. 31 G. A. Influence of tobacco companies; right? 31 G. A. Is that after this? 32 G. And you are that four pages before. 34 Mareira name about in the late 39 MR. MILLER: 35 MR. MILLER: 36 A. Is that after this? 36 Q. You point out at 1933 Journal of 29 American Medical Ad that stated, "Just as pure 29 as the water you drinkand practically 20 Unrouved by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 30 worder family man hands," as a cigarette ad. 30 what is the importance of that in your lecture? 31 what was the context. So rather than an infectious disease rather than an infectious disease model of causation, there were now these new were now these new guidelines that were presented. 20 And, yes, when we say "new," the Bradford-Hill criteria came about in the late '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s? A. Honestly I can't recall what the date '50s, early '60s?				
trouble trying to believe that they were doing something that was bad for them?  MR. COPLE: Objection. Lacks  MR. COPLE: Objection. Lacks  Day MR. MILLER:  MR. COPLE: Objection. Argumentative.  A. Honestly it's been years, five years  MR. CoPLE: Objection. Argumentative.  A. Honestly it's been years, five years  Page 167  actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there  "Smoking common in the scientific community."  BYMR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco of tobacco companies is one of the bullet points, yes.  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  MR. COPLE: Objection. Lacks in infectious disease model of cancer whese new guidelines that were presented.  Q. And, yes, when we say "new," the Bradford-Hill criteria came about in the late  Yos, early '60s?  A. Honestly I can't recall what the date  Page 169  Page 169  A. Honestly I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is				
19 something that was bad for them? 20 MR. COPLE: Objection. Lacks 21 foundation. 22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years  26 Page 167  1 actually since I or more since I've looked at this, so it's a little hard to judge out of a context. But it is true that I bulleted there 3 context. But it is true that I bulleted there 4 "Smoking common in the scientific community." 5 BY MR. MILLER: 6 Q. Hopefully, yes. 7 A. Hopefully, yes. 8 Q. And you wrote here in January, 2012, 9 that a barrier to acceptance of smoking-lung of cancer relationship was the influence of tobacco of the bullet points, yes. 10 cancer relationship was the influence of tobacco of the bullet points, yes. 11 Q. And shat after this? 12 A. Is that after this? 13 Q. You point out a 1933 Journal of 20 American Medical Ad that stated, "Just as pure as the water you drinkand practically 21 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 2 by What's the importance of that in your lecture? 2 by MR. MILLER: 2 Q. And, yes, when we say "new," the presented. Q. And, yes, when we say "new," the Bradford-Hill criteria came about in the late '50s, early '60s? Q. And honestly I can't recall what the date  Page 169  Page 169  Page 169  Page 169  Page 169  Page 169  Was, but I'm not sure. Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right? A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  12 A. Influence of tobacco companies is one of the bullet points, yes. 13 Gonzard-Hill criteria that is required for causation; correct as the water this?  14 Q. Sure. I show you what we're going to mark as Exhibit 23-18. Report from School of Public Health website, Report links welding fumes with risk of cancer, w		The state of the s		·
MR. COPLE: Objection. Lacks 21 foundation. 22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 26 A. Honestly it's been years, five years 27 A. Honestly it is true that I bulleted there 28 this, so it's a little hard to judge out of 30 context. But it is true that I bulleted there 4 "Smoking common in the scientific community." 5 BY MR. MILLER: 6 Q. Hopefully less common now? 7 A. Hopefully, yes. 8 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung 10 cancer relationship was the influence of tobacco 11 companies; right? 12 A. Influence of tobacco companies is one 13 of the bullet points, yes. 14 Q. And at this boot camp on cancer, you 15 wrote, this is so you can find it there. 16 A. Is that after this? 17 Q. I think it is. No, it's actually two 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 25 MR. MILLER: 26 Q. And, yes, when we say "new," the 27 Bradford-Hill criteria came about in the late 28 Bradford-Hill criteria came about in the late 29 Was, but I'm not sure. 20 A. Honestly I can't recall what the date 24 '50s, early '60s? 24 '50s, early '60s? 24 'Sos, early '60s? 25 A. Honestly I can't recall what the date 24 'Sos, early '60s? 24 'Sos 'Desiry In the state bout in the late 25 A. Honestly I can't recall what the date 26 Van dyou list the guidelines, the various points that are sometimes used in the 27 Page 169 28 A. So I believe these are, again, just the bullet po				
21 foundation. 22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years 26 Page 167 27 actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there wishing common in the scientific community." 26 BY MR. MILLER: 27 A. Hopefully less common now? 28 Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco to companies; right? 29 A. Influence of tobacco companies is one of the bullet points, yes. 30 Git be bullet points, yes. 41 Q. And at this boot camp on cancer, you wrote, this is so you can find it there. 42 A. Is that after this? 43 C. You point out a 1933 Journal of 20 A. Mareican Medical Ad that stated, "Just as pure as the water you drinkand practically 21 American Medical Ad that stated," Just as a cigarette ad. What's the importance of that in your lecture? 21 for all of the dath. A condition of the proof of Public Health. You're familiar with Harvard School of Public Health.				, ·
22 BY MR. MILLER: 23 Q. That's what you meant, right? 24 MR. COPLE: Objection. Argumentative. 25 A. Honestly it's been years, five years  26 Page 167  1 actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there  4 "Smoking common in the scientific community."  5 BY MR. MILLER: 6 Q. Hopefully less common now? 6 Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. Hopefully, yes. 7 Q. And you wrote here in January, 2012, 9 that a barrier to acceptance of smoking-lung 10 cancer relationship was the influence of tobacco 11 companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  4 Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  5 A. Is that after this? 6 Q. I think it is. No, it's actually two pages before that, four pages before. 9 A. Okay. 10 Q. You point out a 1933 Journal of 20 American Medical Ad that stated, "Just as pure 21 as the water you drinkand practically 21 untouched by human hands," as a cigarette ad. 2 Q. And, yes, when we say "new," the Bradford-Hill criteria came about in the late '50s, early '60s?  A. Honestly I can't recall what the date  Page 169  Page 169  Page 169  Page 169  Page 169  A. Honestly I can't recall what the date  Page 169  Page 169  A. Honestly I can't recall what the date  Page 169  A. Honestly I can't recall what the date  Page 169  A. Honestly I can't recall what the date  Page 169  A. Honestly I can't recall what the date				
Q. That's what you meant, right?  MR. COPLE: Objection. Argumentative. A. Honestly it's been years, five years  Page 167  Page 167  actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there  "Smoking common in the scientific community." BY MR. MILLER:  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. Hopefully, yes. Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay. Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?				<u>-</u>
A. Honestly it's been years, five years  Page 167  actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community."  BY MR. MILLER:  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?				· · · · · · · · · · · · · · · · · · ·
Page 167  Page 169  A. Honestly it's been years, five years  Page 169  A. Honestly I can't recall what the date  Page 169  actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there sometimes used in the scientific community."  BY MR. MILLER:  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  A. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  A. Influence of tobacco companies is one of the bullet points, yes.  A. Influence of tobacco companies is one of the bullet points, yes.  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report finks welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER:  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?		· · · · · · · · · · · · · · · · · · ·		
Page 167  actually since I or more since I've looked at this, so it's a little hard to judge out of 2 Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  BY MR. MILLER: 5 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And you wrote here in January, 2012, 8 Bradford-Hill criteria.  Q. And you wrote here in January, 2012, 9 that a barrier to acceptance of smoking-lung 10 cancer relationship was the influence of tobacco 11 companies; right?  A. Influence of tobacco companies is one 12 do f the bullet points, yes. 13 for causation; correct.  Q. And at this boot camp on cancer, you 14 wrote, this is so you can find it there. 15 wrote, this is so you can find it there. 15 mark as Exhibit 23-18. (Whereupon, Rider Exhibit 23-18, Report from School of Public Health pages before that, four pages before. 18 website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: 20 A. Hopefully yes. 3 various points that are sometimes used in the Bradford-Hill guideline, right? 4 Bradford-Hill guideline, right? 5 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. 9 Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer? 1 A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct. 1 Q. Sure. I show you what we're going to mark as Exhibit 23-18. (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.) BY MR. MILLER: 2 Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of				· · · · · · · · · · · · · · · · · · ·
actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community."  BY MR. MILLER: 5 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill guideline, right?  A. Hopefully less common now? 6 the bullet points of what is included in the Bradford-Hill criteria. 8 Q. And you wrote here in January, 2012, 8 that a barrier to acceptance of smoking-lung 9 only one that's actually required is the temporal sequencer?  A. Influence of tobacco companies is one of the bullet points, yes. 13 for causation; correct. 14 Q. And at this boot camp on cancer, you wrote, this is so you can find it there. 15 wrote, this is so you can find it there. 16 A. Is that after this? 9 Q. I think it is. No, it's actually two 17 pages before that, four pages before. 18 pages before that, four pages before. 19 A. Okay. 19 American Medical Ad that stated, "Just as pure 20 as the water you drinkand practically 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 22 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 24 What's the importance of that in your lecture? 24 What's the importance of that in your lecture? 24 Was but I'm not sure. 20 And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. 4 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. 4 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. 4 A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. 4 A. So I believe these are, again, just the bullet points, of that is included in the Bradford-Hill criteria. 4 A.	23	71. Hollestry it's been years, five years		71. Honesdy Fear Freedrick what the date
this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now? A. Hopefully, yes. Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right? A. Influence of tobacco companies is one of the bullet points, yes. Q. And at this boot camp on cancer, you wrote, this is so you can find it there. A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before. A. Okay. Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right? A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer? A. Temporality is the only of all of these Bradford-Hill criteria. Q. An then as you and I discussed, the only one that's actually required is the temporal sequencer? A. Temporality is the only of all of these Bradford-Hill criteria. Q. Sure. I show you what we're going to mark as Exhibit 23-18. (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.) BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of		Page 167		Daga 160
this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now? A. Hopefully, yes. Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right? A. Influence of tobacco companies is one of the bullet points, yes. Q. And at this boot camp on cancer, you wrote, this is so you can find it there. A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before. A. Okay. Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right? A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria. Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer? A. Temporality is the only of all of these Bradford-Hill criteria. Q. An then as you and I discussed, the only one that's actually required is the temporal sequencer? A. Temporality is the only of all of these Bradford-Hill criteria. Q. Sure. I show you what we're going to mark as Exhibit 23-18. (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.) BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of				rage 109
<ul> <li>context. But it is true that I bulleted there</li> <li>"Smoking common in the scientific community."</li> <li>BY MR. MILLER:</li> <li>Q. Hopefully less common now?</li> <li>A. Hopefully, yes.</li> <li>Q. And you wrote here in January, 2012,</li> <li>that a barrier to acceptance of smoking-lung</li> <li>cancer relationship was the influence of tobacco</li> <li>companies; right?</li> <li>A. Influence of tobacco companies is one</li> <li>of the bullet points, yes.</li> <li>Q. And at this boot camp on cancer, you</li> <li>wrote, this is so you can find it there.</li> <li>A. Is that after this?</li> <li>Q. I think it is. No, it's actually two</li> <li>pages before that, four pages before.</li> <li>Q. You point out a 1933 Journal of</li> <li>American Medical Ad that stated, "Just as pure</li> <li>as the water you drinkand practically</li> <li>What's the importance of that in your lecture?</li> <li>Various points that are sometimes used in the</li> <li>Bradford-Hill guideline, right?</li> <li>A. So I believe these are, again, just</li> <li>the bullet points of what is included in the</li> <li>Bradford-Hill guideline, right?</li> <li>A. So I believe these are, again, just</li> <li>the bullet points of what is included in the</li> <li>Bradford-Hill guideline, right?</li> <li>A. So I believe these are, again, just</li> <li>the bullet points of what is included in the</li> <li>Bradford-Hill guideline, right?</li> <li>A. So I believe these are, again, just</li> <li>the bullet points of what is included in the</li> <li>Bradford-Hill guideline, right?</li> <li>A. So I believe these are, again, just</li> <li>the bullet points of what is included in the</li> <li>Bradford-Hill criteria.</li> <li>Q. And then as you and I discussed, the</li> <li>only one that's actually required is the</li> <li>temporal sequencer?</li> <li>A. Temporality is the only of all of</li> <li>these Bradford-Hill criteria that is required</li> <li>for causation; correct.</li> <li>Q. Sure. I show you what we're going to mark as Exhibit 23-18</li></ul>	1		1	
5 BY MR. MILLER: 6 Q. Hopefully less common now? 7 A. Hopefully, yes. 8 Q. And you wrote here in January, 2012, 9 that a barrier to acceptance of smoking-lung 10 cancer relationship was the influence of tobacco 11 companies; right? 12 A. Influence of tobacco companies is one 13 of the bullet points, yes. 14 Q. And at this boot camp on cancer, you 15 wrote, this is so you can find it there. 16 A. Is that after this? 17 Q. I think it is. No, it's actually two 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 25 A. So I believe these are, again, just the bullet points of what is included in the 26 the bullet points of what is included in the 27 Bradford-Hill criteria. 28 Q. And then as you and I discussed, the 29 only one that's actually required is the temporal sequencer? 29 10 A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct. 29 Q. Sure. I show you what we're going to mark as Exhibit 23-18. 29 (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.) 20 Q. You point out a 1933 Journal of 20 identification.) 20 Q. Another report pulled down from Harvard Chan School of Public Health. 20 Another report pulled down from Harvard Chan School of Public Health.		actually since I or more since I've looked at	1	was, but I'm not sure.
6 Q. Hopefully less common now? 7 A. Hopefully, yes. 8 Q. And you wrote here in January, 2012, 9 that a barrier to acceptance of smoking-lung 10 cancer relationship was the influence of tobacco 11 companies; right? 12 A. Influence of tobacco companies is one 13 of the bullet points, yes. 14 Q. And at this boot camp on cancer, you 15 wrote, this is so you can find it there. 16 A. Is that after this? 17 Q. I think it is. No, it's actually two 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  16 the bullet points of what is included in the 17 Bradford-Hill criteria. 18 Q. And then as you and I discussed, the 19 only one that's actually required is the 10 temporal sequencer? 10 these Bradford-Hill criteria. 10 Q. And then as you and I discussed, the 11 the bullet points of what is included in the 12 Bradford-Hill criteria. 14 Q. And then as you and I discussed, the 15 only one that's actually required is the 16 temporal sequencer? 11 A. Temporality is the only of all of 12 these Bradford-Hill criteria. 12 Q. Sure. I show you what we're going to mark as Exhibit 23-18. 13 (Whereupon, Rider Exhibit 23-18, 14 Report from School of Public Health 15 website, Report links welding fumes 16 website, Report links welding fumes 17 dentification.) 18 YMR. MILLER: 18 Q. Another report pulled down from 19 Harvard Chan School of Public Health. 20 You're familiar with Harvard School of	2	actually since I or more since I've looked at this, so it's a little hard to judge out of	2	was, but I'm not sure. Q. And you list the guidelines, the
A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you two te, this is so you can find it there.  A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay. Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically A. Hopefully, yes. Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  American Medical Ad that stated, "Just as pure as the water you drinkand practically American Medical Ad that stated, "Just as pure untouched by human hands," as a cigarette ad.  What's the importance of that in your lecture?  A. Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there	2 3	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the
Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you the first actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. And at this boot camp on cancer, you the wrote, this is so you can find it there.  A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  B. Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community."	2 3 4	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?
that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you swrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure A. What's the importance of that in your lecture?  9 only one that's actually required is the temporal sequencer?  10 temporal sequencer?  11 A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:	2 3 4 5	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the
cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you to wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of A. Okay.  Q. You point out a 1933 Journal of untouched by human hands," as a cigarette ad.  What's the importance of that in your lecture?  10 temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.	2 3 4 5 6	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.
11 companies; right?  A. Influence of tobacco companies is one 13 of the bullet points, yes. 14 Q. And at this boot camp on cancer, you 15 wrote, this is so you can find it there. 16 A. Is that after this? 17 Q. I think it is. No, it's actually two 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  11 A. Temporality is the only of all of these Bradford-Hill criteria that is required 12 these Bradford-Hill criteria that is required 13 for causation; correct. 14 Q. Sure. I show you what we're going to mark as Exhibit 23-18. (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes 19 with risk of cancer, was marked for identification.) 19 BY MR. MILLER: 20 Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6 7	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.	2 3 4 5 6 7	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the
A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay. Q. You point out a 1933 Journal of Q. You point out a 1933 Journal of untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  12 these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18. (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6 7 8	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung	2 3 4 5 6 7 8	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the
13 of the bullet points, yes.  14 Q. And at this boot camp on cancer, you 15 wrote, this is so you can find it there. 16 A. Is that after this? 17 Q. I think it is. No, it's actually two 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  13 for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.) BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6 7 8 9	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco	2 3 4 5 6 7 8 9	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?
Q. And at this boot camp on cancer, you the wrote, this is so you can find it there.  A. Is that after this? Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay. Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  14 Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?	2 3 4 5 6 7 8 9 10	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of
wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  15 mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18,  Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one	2 3 4 5 6 7 8 9 10 11	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required
A. Is that after this?  Q. I think it is. No, it's actually two 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  16 (Whereupon, Rider Exhibit 23-18, 17 Report from School of Public Health 18 website, Report links welding fumes 19 with risk of cancer, was marked for identification.) 20 identification.) 21 BY MR. MILLER: 22 Q. Another report pulled down from 23 Harvard Chan School of Public Health. 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.	2 3 4 5 6 7 8 9 10 11 12 13	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.
17 Report from School of Public Health 18 pages before that, four pages before. 19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  17 Report from School of Public Health 18 website, Report links welding fumes 19 with risk of cancer, was marked for 20 identification.) 21 BY MR. MILLER: 22 Q. Another report pulled down from 23 Harvard Chan School of Public Health. 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you	2 3 4 5 6 7 8 9 10 11 12 13 14	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to
pages before that, four pages before.  18 website, Report links welding fumes 19 A. Okay.  19 with risk of cancer, was marked for 20 identification.) 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  18 website, Report links welding fumes 19 with risk of cancer, was marked for 20 identification.) 21 BY MR. MILLER: 22 Q. Another report pulled down from 23 Harvard Chan School of Public Health. 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.	2 3 4 5 6 7 8 9 10 11 12 13 14	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.
19 A. Okay. 20 Q. You point out a 1933 Journal of 21 American Medical Ad that stated, "Just as pure 22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture?  19 with risk of cancer, was marked for identification.) 21 BY MR. MILLER: 22 Q. Another report pulled down from 23 Harvard Chan School of Public Health. 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18,
Q. You point out a 1933 Journal of 20 identification.) American Medical Ad that stated, "Just as pure 21 BY MR. MILLER: 22 as the water you drinkand practically 22 Q. Another report pulled down from 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health
American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  BY MR. MILLER:  Q. Another report pulled down from Harvard Chan School of Public Health.  You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes
22 as the water you drinkand practically 23 untouched by human hands," as a cigarette ad. 24 What's the importance of that in your lecture? 22 Q. Another report pulled down from 23 Harvard Chan School of Public Health. 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for
untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?  23 Harvard Chan School of Public Health. You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)
What's the importance of that in your lecture? 24 You're familiar with Harvard School of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER:
r r y y	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER: Q. Another report pulled down from
25 A. Hollestry I don't Temember because, as 25 I don't Tealth, fight? We talked about it?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER:  Q. Another report pulled down from Harvard Chan School of Public Health.
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	actually since I or more since I've looked at this, so it's a little hard to judge out of context. But it is true that I bulleted there "Smoking common in the scientific community." BY MR. MILLER:  Q. Hopefully less common now?  A. Hopefully, yes.  Q. And you wrote here in January, 2012, that a barrier to acceptance of smoking-lung cancer relationship was the influence of tobacco companies; right?  A. Influence of tobacco companies is one of the bullet points, yes.  Q. And at this boot camp on cancer, you wrote, this is so you can find it there.  A. Is that after this?  Q. I think it is. No, it's actually two pages before that, four pages before.  A. Okay.  Q. You point out a 1933 Journal of American Medical Ad that stated, "Just as pure as the water you drinkand practically untouched by human hands," as a cigarette ad. What's the importance of that in your lecture?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	was, but I'm not sure.  Q. And you list the guidelines, the various points that are sometimes used in the Bradford-Hill guideline, right?  A. So I believe these are, again, just the bullet points of what is included in the Bradford-Hill criteria.  Q. And then as you and I discussed, the only one that's actually required is the temporal sequencer?  A. Temporality is the only of all of these Bradford-Hill criteria that is required for causation; correct.  Q. Sure. I show you what we're going to mark as Exhibit 23-18.  (Whereupon, Rider Exhibit 23-18, Report from School of Public Health website, Report links welding fumes with risk of cancer, was marked for identification.)  BY MR. MILLER:  Q. Another report pulled down from Harvard Chan School of Public Health.  You're familiar with Harvard School of

43 (Pages 166 to 169)

	Page 170		Page 172
1	A. Yes. I was a student and then a	1	Research on Cancer"?
2	faculty member there, yes.	2	A. Mm-hmm.
3	Q. Sure.	3	Q. Were you aware before today that, in
4	And this report from Harvard tells us,	4	fact, Harvard is working in partnership with
5	and I quote, "The IARC is a World Health	5	IARC?
6	Organization body that has among its activities	6	MR. COPLE: Objection. The document
7	to produce independent scientific consensus	7	speaks for itself.
8	reports on the causes of cancer."	8	A. So I've never seen this document, this
9	That's true; isn't it?	9	page from the website before. So in order to
10	MR. COPLE: Objection. The document	10	sort of learn more about the nature of that
11	speaks for itself.	11	relationship, I'd have to really read this.
12	A. So you've read a quote from this page	12	BY MR. MILLER:
13	of the website that I've never seen before, and	13	Q. Sure. Take your time.
14	it's true that what you said appears on the	14	(Witness reviewing document.)
15	page, yes.	15	A. So as I've said, I've never seen this
16	BY MR. MILLER:	16	document and wasn't familiar with this work
17	Q. In fact, Harvard School of Public	17	before just now, but it seems like the Harvard
18	Health works with IARC on various issues	18	School of Public Health is working with IARC,
19	concerning cancer; isn't that true?	19	PATH, I'm not sure who that is, and the WHO to
20	MR. COPLE: Objection. Lacks	20	pursue a coordinated strategy to make new
21	foundation, vague.	21	diagnostics and HPV vaccines accessible,
22	A. I'm unaware of that.	22	affordable, and sustainable in developing
23	BY MR. MILLER:	23	countries.
24	Q. Let's look at this publication from	24	Q. Sounds like a worthy goal; fair
25	the Harvard Chan School of Public Health. We'll	25	enough?
	D 181		5 183
	Page 171		Page 173
1	mark it as Exhibit 23-19.	1	A. Again, I don't know anything about
2	(Whereupon, Rider Exhibit 23-19,	2	this project.
3	Publication titled Global Cervical	3	Q. Sure. Let's go to 23-20.
4	Cancer: HPV Vaccination and	4	(Whereupon, Rider Exhibit 23-20, IARC
5	Diagnostics, was marked for	5	Monograph Volume 114 List of
6	identification.)	6	Participants, was marked for
7	BY MR. MILLER:	7	identification.)
8	Q. I want to call your attention to,	8	BY MR. MILLER:
9	again, the T.H. Chan School of Public Health is	9	Q. In this case counsel for Monsanto
10	at Harvard; right, ma'am?	10	often brings up the red meat conclusions of
11	A. The Harvard T.H. Chan School of Public	11	IARC, and I just want to look at that list of
12	Health is the new name for the Harvard School of	12	participants from that and go over that with you
13	Public Health, yes.	13	for a second.
14	Q. And are you familiar with the Center	14	Are you aware that IARC did look at
15	for Health Decision Science there?	15	red meat? This is 23-20.
	A YI 1 1 C': 1 YI		MID CIUD Et Objection Argumentative
16	A. I've heard of it, but I've never	16	MR. COPLE: Objection. Argumentative.
17	worked with them, no.	17	A. I believe I do recall hearing about
17 18	worked with them, no.  Q. Do you know these any of these	17 18	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and
17 18 19	worked with them, no.  Q. Do you know these any of these investigators, Sue Goldie, Jan Kim, and others	17 18 19	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and don't know any of the details.
17 18 19 20	worked with them, no.  Q. Do you know these any of these investigators, Sue Goldie, Jan Kim, and others here?	17 18 19 20	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and don't know any of the details.  BY MR. MILLER:
17 18 19 20 21	worked with them, no.  Q. Do you know these any of these investigators, Sue Goldie, Jan Kim, and others here?  A. I know a couple of them by name, but	17 18 19 20 21	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and don't know any of the details.  BY MR. MILLER:  Q. Fair enough. We're not going to get
17 18 19 20 21 22	worked with them, no.  Q. Do you know these any of these investigators, Sue Goldie, Jan Kim, and others here?  A. I know a couple of them by name, but I've never worked with them.	17 18 19 20 21 22	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and don't know any of the details.  BY MR. MILLER:  Q. Fair enough. We're not going to get into the details of it.
17 18 19 20 21 22 23	worked with them, no.  Q. Do you know these any of these investigators, Sue Goldie, Jan Kim, and others here?  A. I know a couple of them by name, but I've never worked with them.  Q. And if you'd move down halfway down	17 18 19 20 21 22 23	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and don't know any of the details.  BY MR. MILLER:  Q. Fair enough. We're not going to get into the details of it.  But one of the members of that
17 18 19 20 21 22	worked with them, no.  Q. Do you know these any of these investigators, Sue Goldie, Jan Kim, and others here?  A. I know a couple of them by name, but I've never worked with them.	17 18 19 20 21 22	A. I believe I do recall hearing about this, but I haven't reviewed the monograph, and don't know any of the details.  BY MR. MILLER:  Q. Fair enough. We're not going to get into the details of it.

	Page 174		Page 176
1	to you is, do you know him or her?	1	(Whereupon, Rider Exhibit 23-22,
2	A. Kana Wu was at the Harvard School of	2	Portier, et al article titled
3	Public Health when I was there, and we sometimes	3	Differences in the carcinogenic
4	would attend the same meetings on the health	4	evaluation of glyphosate between the
5	professionals follow-up study cohort, the cohort	5	IARC and the EFSA, was marked for
6	where my ejaculation frequency results study	6	identification.)
7	took place.	7	BY MR. MILLER:
8	Q. Well-respected scientist?	8	Q. Here's that letter (handing). All
9	A. Again, I other than her attendance	9	right. We can do this quick, I'm not going
10	at the meeting, I'm not familiar with her work.	10	to Richard Clapp is one of the authors. Do
11	Q. Sure.	11	you see that?
12	Do you know a Richard Clapp at	12	A. I do.
13	Harvard?	13	MR. COPLE: Objection. The document
14	A. I do not.	14	speaks for itself.
15	Q. I'm sorry, he's at Boston University.	15	BY MR. MILLER:
16	Isn't that where you are now?	16	Q. Was this ever provided to you by
17	A. I am.	17	Monsanto or their attorneys?
18	Q. He's a professor emeritus. I guess	18	MR. COPLE: Objection. Argumentative.
19	that means he's an old guy like me. Is that	19	A. So my only interaction has been with
20	what that means?	20	the attorneys at Hollingsworth, and I don't
21	A. I don't know. I don't know.	21	recognize this. I would have to look at the
22	Q. I'm going to show you, Doctor,	22	list of materials that I was provided, but I
23	Exhibit 23-21. It's from the Harvard T.H. Chan	23	don't recall reviewing this letter.
24	School of Public Health. I just want to ask you	24	BY MR. MILLER:
25	a few questions about it.	25	Q. What does it mean to be a professor
	2 185		D 188
	Page 175		Page 177
1	(Whereupon, Rider Exhibit 23-21,	1	emeritus? Obviously, you know, I don't even
2	Harvard School of Public Health	2	know what that means. That's why I'm asking.
3	website page of Richard Clapp, D.Sc,	3	MR. COPLE: Objection. Vague.
4	MPH, was marked for identification.)	4	A. I actually can't tell you exactly what
5	MR. COPLE: Do you have a copy for me?	5	that means.
6	MR. MILLER: There you go (handing).	6	BY MR. MILLER:
7	BY MR. MILLER:	7	Q. He, Richard Clapp, is at the same
8	Q. Talks about a Richard Clapp, he's a	8	university that you're at now, right?
9	professor emeritus at Boston University School	9	A. Mm-hmm.
10	of Public Health. Does that ring a bell about	10	Q. And so he writes with lots of other
11	how you might know him, or I guess no?	11	scientists in this letter, and I'm looking at
12	A. No. I don't believe we've ever met,	12	the top right-hand page. And we've already gone
13	no.  The reason I bring it up he as signed	13	over this point before, but the working group,
14	Q. The reason I bring it up, he co-signed	14	"The WG concluded that the data for glyphosate
		1 -	mot the emitario for -1:fiti
15	a letter with a physician named Chris Portier	15	met the criteria for classification as a
15 16	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's	16	probable human carcinogen."
15 16 17	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?	16 17	probable human carcinogen."  Do you see where I'm reading?
15 16 17 18	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of	16 17 18	probable human carcinogen."  Do you see where I'm reading?  A. I do.
15 16 17 18 19	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of materials to review, but I don't recall that	16 17 18 19	probable human carcinogen."  Do you see where I'm reading?  A. I do. Q. And you disagree with that; right?
15 16 17 18 19 20	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of materials to review, but I don't recall that being one of the items I reviewed.	16 17 18 19 20	probable human carcinogen."  Do you see where I'm reading?  A. I do. Q. And you disagree with that; right? A. I agree with IARC's conclusions based
15 16 17 18 19 20 21	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of materials to review, but I don't recall that being one of the items I reviewed.  Q. Let me show it to you. 23-22	16 17 18 19 20 21	probable human carcinogen."  Do you see where I'm reading?  A. I do. Q. And you disagree with that; right? A. I agree with IARC's conclusions based on the epidemiologic data on glyphosate and NHL,
15 16 17 18 19 20 21 22	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of materials to review, but I don't recall that being one of the items I reviewed.	16 17 18 19 20 21 22	probable human carcinogen."  Do you see where I'm reading?  A. I do. Q. And you disagree with that; right? A. I agree with IARC's conclusions based on the epidemiologic data on glyphosate and NHL, yes.
15 16 17 18 19 20 21 22 23	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of materials to review, but I don't recall that being one of the items I reviewed.  Q. Let me show it to you. 23-22	16 17 18 19 20 21 22 23	probable human carcinogen."  Do you see where I'm reading?  A. I do. Q. And you disagree with that; right? A. I agree with IARC's conclusions based on the epidemiologic data on glyphosate and NHL, yes. Q. You do agree or don't agree?
15 16 17 18 19 20 21 22	a letter with a physician named Chris Portier concerning that glyphosate and non-Hodgkin's lymphoma issue. Have you seen that letter?  A. No, I have not. I was given a lot of materials to review, but I don't recall that being one of the items I reviewed.  Q. Let me show it to you. 23-22	16 17 18 19 20 21 22	probable human carcinogen."  Do you see where I'm reading?  A. I do. Q. And you disagree with that; right? A. I agree with IARC's conclusions based on the epidemiologic data on glyphosate and NHL, yes.

45 (Pages 174 to 177)

	Page 178		Page 180
1	A IARC's conclusions.	1	there are a number of things that I could point
2	Q. Take if we could now go, please, to	2	to that I do disagree with, even in terms of
3	Page 743 of this letter from Chris Portier,	3	their interpretation of the epidemiologic
4	Richard Clapp, and others, and I want to just	4	evidence on glyphosate and NHL.
5	read one sentence to you, what they write. This	5	BY MR. MILLER:
6	is on over here on the last column of that.	6	Q. And that I understand that to be
7	A. Okay.	7	true, and I'm asking more broadly.
8	Q. They write, "The most appropriate and	8	In the summary where they say that the
9	scientifically based evaluation of the cancers	9	most appropriate scientific valuation is that
10	reported in humans and laboratory animals as	10	glyphosate is a probable human carcinogen, I
11	well as supportive mechanistic data is that	11	think you disagree with that. But if you agree,
12	glyphosate is a probable human carcinogen."	12	that's fine, too. Just let me know.
13	You disagree with them or	13	A. Again, I can't really tell you whether
14	A. Again, I've never seen this particular	14	I agree or disagree with that statement without
15	letter before, so I couldn't tell you whether I	15	reading the entire commentary.
16	agreed or disagreed with it. But I do disagree	16	Q. It's fairly short, so, yeah, go ahead.
17	with IARC's conclusions based on the	17	MR. MILLER: Somebody else join the
18	population-based studies, the human studies of	18	call?
19	glyphosate and NHL.	19	(Witness reviewing document.)
20	Q. Okay. Let me rephrase my question.	20	A. Okay. So after reading this, it isn't
21	A. Okay.	21	completely clear to me, but I think that what
22	Q. You disagree with the statement that,	22	the authors are referring to in that statement
23	"The most appropriate and scientifically based	23	is by saying that "the most appropriate and
24	evaluation of the cancers reported in humans and	24	scientifically based evaluation of the cancers
25	laboratory animals as well as supportive	25	reported in humans and laboratory animals as
			Dago 191
			Page 181
1	mechanistic data is that glyphosate is a	1	well as supportive mechanistic data," I believe
2	mechanistic data is that glyphosate is a probable human carcinogen"?	2	well as supportive mechanistic data," I believe that they are referring to the IARC review, and
2	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?	2	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the
2 3 4	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or	2 3 4	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based
2 3 4 5	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one	2 3 4 5	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL
2 3 4 5 6	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.	2 3 4 5 6	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as
2 3 4 5 6 7	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I	2 3 4 5 6 7	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.
2 3 4 5 6 7 8	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I disagree or agree with that statement.	2 3 4 5 6 7 8	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data. BY MR. MILLER:
2 3 4 5 6 7 8	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate	2 3 4 5 6 7 8	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter,
2 3 4 5 6 7 8 9	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?	2 3 4 5 6 7 8 9	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence
2 3 4 5 6 7 8 9 10	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's	2 3 4 5 6 7 8 9 10	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in
2 3 4 5 6 7 8 9 10 11	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic	2 3 4 5 6 7 8 9 10 11	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is
2 3 4 5 6 7 8 9 10 11 12	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human	2 3 4 5 6 7 8 9 10 11 12	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate
2 3 4 5 6 7 8 9 10 11 12 13 14	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.	2 3 4 5 6 7 8 9 10 11 12 13 14	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely
2 3 4 5 6 7 8 9 10 11 12 13 14 15	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review	2 3 4 5 6 7 8 9 10 11 12 13 14 15	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.  A. I couldn't say that without reading	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that statement. Again, I think that if you if you
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.  A. I couldn't say that without reading the entire commentary.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that statement. Again, I think that if you if you read this entire commentary, they refer to, you
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary. So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.  A. I couldn't say that without reading the entire commentary. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that statement. Again, I think that if you if you read this entire commentary, they refer to, you know, the case control studies as high quality.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.  A. I couldn't say that without reading the entire commentary.  BY MR. MILLER:  Q. Sure. Go ahead.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that statement. Again, I think that if you if you read this entire commentary, they refer to, you know, the case control studies as high quality. They point to a number of limitations in the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.  A. I couldn't say that without reading the entire commentary.  BY MR. MILLER:  Q. Sure. Go ahead.  (Witness reviewing document.)	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that statement. Again, I think that if you if you read this entire commentary, they refer to, you know, the case control studies as high quality. They point to a number of limitations in the cohort study which I think are inaccurate,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	mechanistic data is that glyphosate is a probable human carcinogen"?  You'd disagree with that statement?  A. I can't tell you whether I agree or disagree, because I've only read this one sentence of this entire several-page commentary.  So I can't I can't tell you whether I disagree or agree with that statement.  Q. You agree or disagree that glyphosate is a probable human carcinogen?  A. As I mentioned, I disagree with IARC's conclusions based on the epidemiologic literature that glyphosate is a probable human carcinogen.  Q. Take all the time you need to review 23-22. But it's fair to say, then, you disagree with these authors?  MR. COPLE: Objection. Argumentative.  A. I couldn't say that without reading the entire commentary.  BY MR. MILLER:  Q. Sure. Go ahead.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	well as supportive mechanistic data," I believe that they are referring to the IARC review, and I would disagree that the IARC review is the most appropriate and scientifically based evaluation of the cancers, well, at least NHL reported in humans and laboratory animals, as well as supportive mechanistic data.  BY MR. MILLER:  Q. These people who signed this letter, including Dr. Clapp, go on in the next sentence to say, "On the basis of this conclusion and in the absence of evidence to the contrary, it is reasonable to conclude that glyphosate formulations should also be considered likely human carcinogens."  Do you disagree with them on that statement?  A. I do disagree with them on that statement. Again, I think that if you if you read this entire commentary, they refer to, you know, the case control studies as high quality. They point to a number of limitations in the

	Dama 100		Dama 104
_	Page 182		Page 184
1	conclusions of this particular commentary.	1	BY MR. MILLER:
2	Q. Have you gave a list of materials	2	Q. You can answer.
3	reviewed and considered attached to your report.	3	A. Yeah, so I'm not exactly clear on your
4	Do you remember that?	4	question, but I just want to point out that I
5	A. Attached to my yes, that's correct.	5	was retained by Hollingsworth, not Monsanto. I
6	Q. Were all of those provided by the	6	have not had any communications with Monsanto.
7	Hollingsworth firm?	7	Q. Yeah, I understand that. I appreciate
8	A. No, they were not. So many of them	8	that distinction. But you know they work for
9	were provided by attorneys at Hollingsworth, but	9	Monsanto, the Hollingsworth firm; right?
10	I also did my own review of the literature as	10	A. Yes. I am aware of that, yes.
11	well.	11	Q. And I it was a poorly formed
12	Q. Are you able to tell me which articles	12	question. I'm just trying to ask this.
13	you found and which were provided?	13	There's been some defense of IARC in
14	A. I'm not offhand, no.	14	the face of what IARC perceived as criticism
15	Q. Okay. Did you read Dr. Portier's	15	from Monsanto. Have you read anything in that
16	report in this case?	16	regards?
17	A. I do not believe that I reviewed	17	A. You would need to be a bit more
18	Dr. Portier's report, no.	18	specific. I'm not sure.
19	Q. And you did not or did you review	19	Q. Okay. I will.
20	Dr. Weisenburger's report in this case?	20	MR. MILLER: What's our next exhibit
21	A. I did not, no. I may have had access	21	number?
22	to it. I can't recall. But I did not read	22	MS. MILLER: 23-23.
23	those.	23	(Whereupon, Rider Exhibit 23-23, IARC
24	Q. Okay. Did you read Dr. Nabhan's	24	Monograph: 40 Years of Evaluating
25	report in this case?	25	Carcinogenic Hazards to Humans, was
	Page 183		Page 185
1	A. No.	1	marked for identification.)
2	Q. Did you read Dr. Neugut's report in	2	BY MR. MILLER:
3	this case?	3	Q. 23-23. And this is our next exhibit.
4	A X/ T ' 11 (1 D X) (1 1	1 2	Q. 25-25. And this is our next exhibit.
	A. Yes, I reviewed both Dr. Neugut's and	4	This is a publication Environmental Health
5	A. Yes, I reviewed both Dr. Neugut's and Dr. Ritz's reports and depositions, yes.		=
		4	This is a publication Environmental Health
5	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report?	4 5	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs:
5 6	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental	4 5 6	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to
5 6 7	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report?	4 5 6 7	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?
5 6 7 8	<ul><li>Dr. Ritz's reports and depositions, yes.</li><li>Q. Did you review Dr. Ritz's supplemental report?</li><li>A. Her sort of rebuttal report, I think</li></ul>	4 5 6 7 8	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct.
5 6 7 8 9	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was?	4 5 6 7 8 9	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like
5 6 7 8 9	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes.	4 5 6 7 8 9	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three,
5 6 7 8 9 10 11	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct.	4 5 6 7 8 9 10 11	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and
5 6 7 8 9 10 11 12	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with? MR. COPLE: Objection. Vague.	4 5 6 7 8 9 10 11 12	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani,
5 6 7 8 9 10 11 12 13	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with?	4 5 6 7 8 9 10 11 12	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and
5 6 7 8 9 10 11 12 13 14	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with? MR. COPLE: Objection. Vague.	4 5 6 7 8 9 10 11 12 13	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?
5 6 7 8 9 10 11 12 13 14	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague. A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report.	4 5 6 7 8 9 10 11 12 13 14	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them? A. I know a couple of those people just
5 6 7 8 9 10 11 12 13 14 15	Dr. Ritz's reports and depositions, yes.  Q. Did you review Dr. Ritz's supplemental report?  A. Her sort of rebuttal report, I think it was?  Q. Yes.  A. Yes, correct.  Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague.  A. I would have to look at it. I don't remember exactly what she raised in her rebuttal	4 5 6 7 8 9 10 11 12 13 14 15	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them? A. I know a couple of those people just because we were at the same institution, but I
5 6 7 8 9 10 11 12 13 14 15 16	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague. A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report.	4 5 6 7 8 9 10 11 12 13 14 15 16	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?  A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any
5 6 7 8 9 10 11 12 13 14 15 16 17	Dr. Ritz's reports and depositions, yes.  Q. Did you review Dr. Ritz's supplemental report?  A. Her sort of rebuttal report, I think it was?  Q. Yes.  A. Yes, correct.  Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague.  A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report.  BY MR. MILLER:	4 5 6 7 8 9 10 11 12 13 14 15 16 17	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?  A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any of them, no.
5 6 7 8 9 10 11 12 13 14 15 16 17 18	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with? MR. COPLE: Objection. Vague. A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report. BY MR. MILLER: Q. Since you became involved as an expert	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them? A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any of them, no. Q. Okay.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Dr. Ritz's reports and depositions, yes. Q. Did you review Dr. Ritz's supplemental report? A. Her sort of rebuttal report, I think it was? Q. Yes. A. Yes, correct. Q. Anything about that that you disagree with? MR. COPLE: Objection. Vague. A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report. BY MR. MILLER: Q. Since you became involved as an expert for Monsanto, or for that matter even before	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?  A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any of them, no. Q. Okay. A. Maybe Dr. Schernhammer and I have
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Dr. Ritz's reports and depositions, yes.  Q. Did you review Dr. Ritz's supplemental report?  A. Her sort of rebuttal report, I think it was?  Q. Yes.  A. Yes, correct.  Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague.  A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report.  BY MR. MILLER:  Q. Since you became involved as an expert for Monsanto, or for that matter even before then, were you aware of the publications that surrounded IARC after they concluded that glyphosate was a 2A probably carcinogenic?	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?  A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any of them, no. Q. Okay. A. Maybe Dr. Schernhammer and I have co-authored a publication, but I can't recall for sure. Q. Let's look at what these and other
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Dr. Ritz's reports and depositions, yes.  Q. Did you review Dr. Ritz's supplemental report?  A. Her sort of rebuttal report, I think it was?  Q. Yes.  A. Yes, correct.  Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague.  A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report.  BY MR. MILLER:  Q. Since you became involved as an expert for Monsanto, or for that matter even before then, were you aware of the publications that surrounded IARC after they concluded that	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?  A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any of them, no. Q. Okay. A. Maybe Dr. Schernhammer and I have co-authored a publication, but I can't recall for sure. Q. Let's look at what these and other physicians had to say about IARC. This is about
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Dr. Ritz's reports and depositions, yes.  Q. Did you review Dr. Ritz's supplemental report?  A. Her sort of rebuttal report, I think it was?  Q. Yes.  A. Yes, correct.  Q. Anything about that that you disagree with?  MR. COPLE: Objection. Vague.  A. I would have to look at it. I don't remember exactly what she raised in her rebuttal report.  BY MR. MILLER:  Q. Since you became involved as an expert for Monsanto, or for that matter even before then, were you aware of the publications that surrounded IARC after they concluded that glyphosate was a 2A probably carcinogenic?	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	This is a publication Environmental Health Perspectives, June, 2015, "IARC Monographs: 40 Years of Evaluating Carcinogenic Hazards to Humans"; right?  A. Yes. That is the title. Correct. Q. And one of the first things I'd like to ask you about, there are one, two, three, four five authors that are from Harvard in this report or commentary, Dr. Christiani, Dr. Baccarelli, Dr. Laden, Dr. Monson, and Dr. Schernhammer. Do you know any of them?  A. I know a couple of those people just because we were at the same institution, but I don't believe I've ever worked directly with any of them, no. Q. Okay. A. Maybe Dr. Schernhammer and I have co-authored a publication, but I can't recall for sure. Q. Let's look at what these and other

	Page 186		Page 188
1	glyphosate was a probable human carcinogen.	1	Do you agree with that?
2	Let's go to the Page 2, "Objectives." "The	2	A. Again, it's a very broad general
3	authors of this Commentary are scientists from	3	statement. I don't follow actively follow
4	various disciplines relevant to the	4	all of the IARC decisions, and so I couldn't
5	identification and hazard evaluation of human	5	really comment on that.
6	carcinogens. We examined criticisms of the IARC	6	Q. Are you aware that the IARC members
7	classification process to determine the validity	7	don't receive any fee for their work?
8	of these concerns. Here, we present the results	8	MR. COPLE: Objection. Lacks
9	of that examination, review the history of IARC	9	foundation.
10	evaluations, and describe how the IARC	10	A. I'm not aware of how the panels
11	evaluations are performed."	11	operate, or if there's compensation provided,
12	Did I read that correctly?	12	no.
13	MR. COPLE: Objection. The document	13	BY MR. MILLER:
14	speaks for itself.	14	Q. Let's go to Page 512.
15	A. Yes, I see that there.	15	A. Okay.
16	BY MR. MILLER:	16	Q. And I'm looking at the top right where
17	Q. Did the attorneys from Hollingsworth	17	it says, "Working Group members do not receive
18	provide you this document?	18	any fee for their work, but they are paid travel
19	A. I don't recall this being one of the	19	expenses, and there is some prestige associated
20	materials that I was provided. I was provided	20	with service on an IARC Monograph."
21	with a lot of materials, though, so I could not	21	You have no reason to challenge that
22	be sure.	22	statement?
23	Q. The first sentence in their Discussion	23	MR. COPLE: Objection. Argumentative.
24	is, "We concluded that these recent criticisms	24	A. I have no reason to challenge it, no.
25	are unconvincing."	25	But, again, this is the first time that I'm ever
	Page 187		Page 189
1	Page 187 Do you see that?	1	Page 189 reviewing this particular document.
1 2		1 2	
	Do you see that?		reviewing this particular document.
2	Do you see that? A. I do.	2	reviewing this particular document. BY MR. MILLER:
2 3	Do you see that?  A. I do. Q. Okay. They go on to say in the	2 3	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then
2 3 4	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion,	2 3 4	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this
2 3 4 5	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the	2 3 4 5	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513.
2 3 4 5 6	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of	2 3 4 5 6	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay.
2 3 4 5 6 7	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer	2 3 4 5 6 7	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these
2 3 4 5 6 7 8	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review	2 3 4 5 6 7 8	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five
2 3 4 5 6 7 8	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert	2 3 4 5 6 7 8	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a
2 3 4 5 6 7 8 9	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?	2 3 4 5 6 7 8 9	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have
2 3 4 5 6 7 8 9 10	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for	2 3 4 5 6 7 8 9 10	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the
2 3 4 5 6 7 8 9 10 11	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews	2 3 4 5 6 7 8 9 10 11	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC
2 3 4 5 6 7 8 9 10 11 12 13	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes.	2 3 4 5 6 7 8 9 10 11 12	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the
2 3 4 5 6 7 8 9 10 11 12 13 14	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing	2 3 4 5 6 7 8 9 10 11 12 13 14	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on	2 3 4 5 6 7 8 9 10 11 12 13 14	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive." Any reason to challenge that
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes.  Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on Page 2	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement? A. Again, I'm only looking at this for
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes.  Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on Page 2 A. I'm sorry.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	reviewing this particular document. BY MR. MILLER:  Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513.  A. Okay.  Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement?  A. Again, I'm only looking at this for the first time, I so I would have no reason
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes.  Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on Page 2 A. I'm sorry. Q. I'm sorry.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement? A. Again, I'm only looking at this for the first time, I so I would have no reason to challenge it. Q. Okay. We can move on. If I wanted to study how quickly
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on Page 2 A. I'm sorry. Q. I'm sorry. Yeah, the conclusion is, "The IARC Monographs have made, and continue to make, major contributions to the scientific	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	reviewing this particular document. BY MR. MILLER: Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513. A. Okay. Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement? A. Again, I'm only looking at this for the first time, I so I would have no reason to challenge it. Q. Okay. We can move on.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on Page 2 A. I'm sorry. Q. I'm sorry. Yeah, the conclusion is, "The IARC Monographs have made, and continue to make, major contributions to the scientific underpinning for social actions to improve the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	reviewing this particular document. BY MR. MILLER:  Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513.  A. Okay.  Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement?  A. Again, I'm only looking at this for the first time, I so I would have no reason to challenge it.  Q. Okay. We can move on.  If I wanted to study how quickly someone had to get out of a burning building, a residential building, would I want to study
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Do you see that?  A. I do. Q. Okay. They go on to say in the Introduction I'm now in the written portion, not the abstract "The IARC Monographs on the Evaluation of Carcinogenic Risks to Humans of the International Agency for Research on Cancer are a prominent example of such an expert review process."  My question to you is, do you agree that IARC is a prominent example of an expert review process for causes of carcinogens?  A. I think it's certainly an agency for which many people are aware that they do reviews of potential carcinogens, yes. Q. Okay. And I apologize for bouncing around, but back to the abstract, it's on Page 2 A. I'm sorry. Q. I'm sorry. Yeah, the conclusion is, "The IARC Monographs have made, and continue to make, major contributions to the scientific	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	reviewing this particular document. BY MR. MILLER:  Q. I understand. Last point and then we'll move on. The last sentence in this article on Page 513.  A. Okay.  Q. And this, again, quote from these scientists on the front page, including five from Harvard, that they say, "However, as a group of international scientists, we have looked carefully at the recent charges of flaws and bias in the hazard evaluations by IARC Working Groups, and have concluded that the recent criticisms are unfair and unconstructive."  Any reason to challenge that statement?  A. Again, I'm only looking at this for the first time, I so I would have no reason to challenge it.  Q. Okay. We can move on.  If I wanted to study how quickly someone had to get out of a burning building, a

48 (Pages 186 to 189)

	Page 190		Page 192
1	people that are wearing fire-retardant outfits	1	A. Can you ask the question one more
2	provided by a fire department?	2	time, please?
3	MR. COPLE: Objection. Vague,	3	BY MR. MILLER:
4	incomplete hypothetical.	4	Q. The cases and the controls in the
5	BY MR. MILLER:	5	Agricultural Health Study, were they laypeople,
6	Q. Do you see my point?	6	home users, gardeners, untrained farmers? What
7	MR. COPLE: Same objection.	7	kind of people were they?
8	A. I'm not sure that I do see your point,	8	MR. COPLE: Objection. Compound
9	I'm sorry.	9	questions.
10	BY MR. MILLER:	10	A. So I think you asked about cases and
11	Q. Well, can you and I agree just as a	11	controls, but that's not really how we would
12	common sense observation that someone in shorts	12	talk about a cohort study. But if you're
13	or pajamas is going to be more susceptible to	13	talking about just the people who were enrolled
14	injury from a fire than someone wearing	14	in the Agricultural Health Study, the
15	fire-retardant clothes from the fire department?	15	participants were farmers and oftentimes
16	MR. COPLE: Objection. Argumentative.	16	commercial applicators of pesticides.
17	BY MR. MILLER:	17	BY MR. MILLER:
18	Q. Just asking.	18	Q. When you say "oftentimes," are they
19	A. Again, this is outside of my area of	19	always that, or no?
20	expertise in cancer epidemiology.	20	A. I would have to go back and look at
21	Q. So you're unable to answer it, or	21	the methods to be sure, certain.
22	because it's outside your expertise you won't	22	Q. Would that be important to know what
23	answer it?	23	percentage of them were commercial applicators?
24	MR. COPLE: Objection. Asked and	24	A. Well, I think the striking thing about
25	answered, argumentative.	25	the Agricultural Health Study is that they were
	Page 191		Page 193
1	A. Because it's outside of my area of	1	able to look at levels of exposure that were
1 2	A. Because it's outside of my area of expertise, I'm sort of not comfortable talking	1 2	able to look at levels of exposure that were many times higher than what had previously been
	expertise, I'm sort of not comfortable talking		able to look at levels of exposure that were many times higher than what had previously been investigated in the case control studies not
2		2	many times higher than what had previously been
2	expertise, I'm sort of not comfortable talking about such a hypothetical study.	2 3	many times higher than what had previously been investigated in the case control studies not
2 3 4	expertise, I'm sort of not comfortable talking about such a hypothetical study. BY MR. MILLER: Q. Why?	2 3 4	many times higher than what had previously been investigated in the case control studies not done among farmers.
2 3 4 5	expertise, I'm sort of not comfortable talking about such a hypothetical study. BY MR. MILLER:	2 3 4 5	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question,
2 3 4 5 6 7	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and	2 3 4 5 6	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide
2 3 4 5 6	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.	2 3 4 5 6 7	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.
2 3 4 5 6 7 8	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered. BY MR. MILLER:	2 3 4 5 6 7 8	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?
2 3 4 5 6 7 8 9	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You	2 3 4 5 6 7 8	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.
2 3 4 5 6 7 8 9	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health	2 3 4 5 6 7 8 9	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was
2 3 4 5 6 7 8 9 10	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal	2 3 4 5 6 7 8 9 10	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the
2 3 4 5 6 7 8 9 10 11	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it?	2 3 4 5 6 7 8 9 10 11	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the
2 3 4 5 6 7 8 9 10 11 12 13	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague,	2 3 4 5 6 7 8 9 10 11 12	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for
2 3 4 5 6 7 8 9 10 11 12 13 14	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation.	2 3 4 5 6 7 8 9 10 11 12 13 14	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the	2 3 4 5 6 7 8 9 10 11 12 13 14 15	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a licensed pesticide applicator?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?  BY MR. MILLER: Q. Well, what, if anything, did someone	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a licensed pesticide applicator?  A. I'm not sure.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?  BY MR. MILLER: Q. Well, what, if anything, did someone have to learn in order to be a participant in	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a licensed pesticide applicator?  A. I'm not sure.  Q. How long does it take to become a
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?  BY MR. MILLER: Q. Well, what, if anything, did someone have to learn in order to be a participant in the Agricultural Health Study?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a licensed pesticide applicator?  A. I'm not sure.  Q. How long does it take to become a licensed pesticide applicator?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?  BY MR. MILLER: Q. Well, what, if anything, did someone have to learn in order to be a participant in the Agricultural Health Study? MR. COPLE: Objection. Vague.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a licensed pesticide applicator?  A. I'm not sure.  Q. How long does it take to become a licensed pesticide applicator?  A. I am not sure of all of the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	expertise, I'm sort of not comfortable talking about such a hypothetical study.  BY MR. MILLER: Q. Why? MR. COPLE: Objection. Asked and answered.  BY MR. MILLER: Q. Well, you know where I'm going. You know full good and well the Agricultural Health Study was not done of people in the normal setting, was it? MR. COPLE: Objection. Vague, argumentative, lacks foundation. A. Can you explain what you mean by "the normal setting"?  BY MR. MILLER: Q. Well, what, if anything, did someone have to learn in order to be a participant in the Agricultural Health Study? MR. COPLE: Objection. Vague.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	many times higher than what had previously been investigated in the case control studies not done among farmers.  Q. Nothing to do with my question, though.  Were they licensed pesticide applicators?  MR. COPLE: Objection. Argumentative.  A. When they were enrolled, it was they were being enrolled as part of the licensing process. I mean, that interview, the enrollment happened when they were applying for their license.  BY MR. MILLER:  Q. What does one have to do to become a licensed pesticide applicator?  A. I'm not sure.  Q. How long does it take to become a licensed pesticide applicator?  A. I am not sure of all of the requirements of becoming a licensed pesticide

	Page 194		Page 196
1	A. I'm not sure of the requirements for	1	included in the unadjusted results. I referred
2	becoming a licensed pesticide applicator.	2	to it, I call that sometimes we refer to that
3	Q. What is the training involved with	3	as letting the sample size float. That's how I
4	explaining to an applicant for the licensed	4	refer it to in my report.
5	pesticide applicator in terms of what to wear	5	BY MR. MILLER:
6	and how to handle herbicides and pesticides?	6	Q. Is that are there other criticisms,
7	A. I am not aware. I'm not sure.	7	or is that the only one?
8	Q. Not important?	8	A. I felt like that was the major
9	MR. COPLE: Objection. Argumentative.	9	limitation of the study.
10	A. I think that what is important is that	10	Q. So are there any minor limitations of
11	the Agricultural Health Study was able to	11	the study?
12	evaluate levels of exposure that were higher and	12	MR. COPLE: Objection. Vague.
13	probably more likely to be associated with an	13	A. Yeah, I mean, of course, all studies
14	increased risk of cancer if such an increased	14	have epidemiologic studies have limitations
15	risk existed.	15	to varying degrees. In this particular study,
16	MR. MILLER: Move to strike as	16	they, you know, as in the case control studies,
17	non-responsive.	17	they were relying on self-reported exposure
18	MR. COPLE: The witness's answer will	18	information, and so you might expect for some of
19	stand.	19	that exposure to be misclassified, but I think
20	MR. MILLER: Let's move on.	20	the quality would be stronger than in the case
21	BY MR. MILLER:	21	control studies where that would also vary based
22	Q. What percentage of the cohort was	22	on whether or not someone had developed the
23	licensed pesticide applicators in the HS?	23	disease.
24	A. Again, I think I mentioned previously,	24	BY MR. MILLER:
25	to tell you I would need to look at the actual	25	Q. Do are licensed pesticide
	Page 195		Page 197
1	paper.	1	applicators trained to wear a personal
2	Q. Are there any weaknesses in the	2	protection equipment at a higher rate than
3	Agricultural Health Study?	3	people who are not licensed pesticide
4	MR. COPLE: Objection. Vague.	4	applicators, or do you know?
5	A. Certainly I talk about some of those	5	MR. COPLE: Objection. Asked and
6	limitations of the study in my report.	6	answered.
7	BY MR. MILLER:	7	A. Yeah, I told you previously I don't
8	Q. And what are they?	8	know about all of the requirements for pesticide
9	A. If we could if I could see my	9	licensing.
10	report, we could go through those.	10	BY MR. MILLER:
11	Q. Feel free (handing).	11	Q. Have you been provided, or in your own
12	MR. COPLE: Are you marking it for the	12	research reviewed the Bolognesi study of 2016?
13	deposition?	13	MR. COPLE: Objection. Lacks
14	MR. MILLER: No.	14	foundation.
15	A. Okay. So I reviewed the 2005 study,	15	A. I don't recall reviewing that study,
16	starting at the bottom of Page 22 of my report.	16	no.
17	BY MR. MILLER:	17	BY MR. MILLER:
18	Q. And the question is, what are the	18	Q. Let's take a look at it. Doctor, I'm
19	weaknesses that you believe exist in the	19	going to hand you what's been marked as 23-24,
20	Agricultural Health Study as published in 2005?	20	Bolognesi study of lymphocyte cytokinesis and
~ 1	MR. COPLE: Objection. Vague.	21	micronucleus assay for the monitoring of
21	A C T 1		pesticide-exposed populations.
22	A. So as I stated in my report, the major	22	L L. L. L. L
22 23	limitation of the study relates to how they	23	Francisco Infrastr Laboratoria
22		1	Francisco esta for a series for

	Page 198		Page 200
1	(Whereupon, Rider Exhibit 23-24,	1	Q. Retrospectively?
2	Bolognesi and Holland article titled	2	A. Or prospectively, for that matter.
3	The use of lymphocyte	3	Q. But you couldn't randomize people to
4	cytokinesis-block micronucleus assay	4	it?
5	for monitoring pesticide-exposed	5	A. But observational studies, cohort
6	populations, was marked for	6	studies are also prospective studies.
7	identification.)	7	Q. Sure, sure.
8	BY MR. MILLER:	8	But we couldn't do a randomized study
9	Q. Did you see the study before?	9	for that purpose now. We agree on that?
10	A. I do not recall reviewing the study,	10	A. I agree, that would not be
11	no.	11	Q. So the Agricultural Health Study is
12	Q. The good news is we're not going to go	12	telling us what whether there's a risk to
13	through the whole study. That's number one.	13	licensed pesticide applicators; right? That's
14	Number two, I'm just going to ask you	14	what it's telling us?
15	whether you have an opinion or not on one	15	A. The studied population included people
16	particular point Dr. Bolognesi makes in his	16	who were applying for their pesticide license,
17	study. And it can be found in the abstract.	17	yes.
18	It's the third to last sentence. He says that	18	Q. And, in fact, got their pesticide
19	there is, "A decreased level of	19	license; right?
20	pesticide-induced genotoxicity was associated	20	A. Again, I don't recall from the details
21	with the proper use of personal protection."	21	of the study whether people had to actually get
22	And my question to you is, do you have	22	the license to be included. I would have to
23	an opinion about that issue or not?	23	look at the methods.
24	MR. COPLE: Objection. Vague.	24	Q. All right. We'll mark as 23-25, I
25	BY MR. MILLER:	25	believe this is the 2005 Agricultural Health
	Dama 100		- 001
	Page 199		Page 201
1		1	
1 2	Q. Whether or not and just to be	1 2	Study.
	Q. Whether or not and just to be precise, whether or not someone who wears proper		Study. (Whereupon, Rider Exhibit 23-25, De
2	Q. Whether or not and just to be	2	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence
2	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased	2 3	Study. (Whereupon, Rider Exhibit 23-25, De
2 3 4	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.	2 3 4	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide
2 3 4 5	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that,	2 3 4 5	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health
2 3 4 5 6	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.	2 3 4 5 6	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)
2 3 4 5 6 7	<ul> <li>Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.</li> <li>A. I do not have an opinion about that, no.</li> <li>Q. But if it was true, if that statement</li> </ul>	2 3 4 5 6 7	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:
2 3 4 5 6 7 8	<ul> <li>Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.</li> <li>A. I do not have an opinion about that, no.</li> <li>Q. But if it was true, if that statement was true, then that would mean people who wear</li> </ul>	2 3 4 5 6 7 8	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study
2 3 4 5 6 7 8	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal	2 3 4 5 6 7 8 9 10	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods
2 3 4 5 6 7 8 9	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?	2 3 4 5 6 7 8 9	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.
2 3 4 5 6 7 8 9 10	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks	2 3 4 5 6 7 8 9 10	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.	2 3 4 5 6 7 8 9 10 11 12 13	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a
2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:  Q. And that would be unethical to do now,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?  A. That is correct, yes.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:  Q. And that would be unethical to do now, wouldn't it?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?  A. That is correct, yes.  Q. And wouldn't it be important to know
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:  Q. And that would be unethical to do now, wouldn't it?  A. Well, it would certainly be unethical	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?  A. That is correct, yes.  Q. And wouldn't it be important to know what the education and training is of a licensed
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:  Q. And that would be unethical to do now, wouldn't it?  A. Well, it would certainly be unethical to, you know, randomize people to exposure or	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?  A. That is correct, yes.  Q. And wouldn't it be important to know what the education and training is of a licensed restricted-use pesticide applicator in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:  Q. And that would be unethical to do now, wouldn't it?  A. Well, it would certainly be unethical to, you know, randomize people to exposure or not to exposure, but that doesn't mean that it	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?  A. That is correct, yes.  Q. And wouldn't it be important to know what the education and training is of a licensed restricted-use pesticide applicator in specifically Iowa and North Carolina to reach
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Whether or not and just to be precise, whether or not someone who wears proper use of her personal protection has a decreased level of pesticide-induced genotoxicity.  A. I do not have an opinion about that, no.  Q. But if it was true, if that statement was true, then that would mean people who wear the proper use of personal protection would have a lower risk of the problem that would be caused by exposure as to people who don't wear personal protection; right?  MR. COPLE: Objection. Vague, lacks foundation.  A. The only way I would be comfortable in coming to that conclusion would be if there had been a human study that had actually looked at that on the population level.  BY MR. MILLER:  Q. And that would be unethical to do now, wouldn't it?  A. Well, it would certainly be unethical to, you know, randomize people to exposure or	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Study.  (Whereupon, Rider Exhibit 23-25, De Roos, et al article, Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:  Q. This is the Agricultural Health Study that you've been referring to; right?  A. That is correct, yes.  Q. Do you see the Materials and Methods section?  A. I do.  Q. Okay. It says, "The AHS is a prospective cohort study in Iowa and North Carolina, which includes 57,000 private and commercial applicators who were licensed to apply restricted-use pesticides at the time of their enrollment." Right?  A. That is correct, yes.  Q. And wouldn't it be important to know what the education and training is of a licensed restricted-use pesticide applicator in

51 (Pages 198 to 201)

Page 204 Page 202 1 or would not apply to people who were not 1 generalizable. If you're talking about whether, 2 licensed restricted-use pesticide applicators? 2 you know, protective equipment could be on the 3 MR. COPLE: Objection. Asked and 3 causal pathway between glyphosate exposure and 4 4 NHL, I would say that, you know, again, in this answered, vague. 5 A. So I believe what you're asking about 5 study we have levels of glyphosate exposure in 6 6 is the generalizability of the study, so the highest category, they're -- you know, that 7 whether or not we can take the results from the 7 are five times what was, at minimum, what was 8 Agricultural Health Study and apply them to 8 done in previous case control studies. And so 9 groups of people who are in some way different, 9 if we were going to see an association between 10 in this case not licensed applicators. And as I 10 glyphosate and NHL, we would likely see that at 11 talk about in my expert report, you know, the 11 these higher levels of exposure. 12 12 Q. Well, here's my question. Either you sort of first step in evaluating a study is 13 looking at the internal validity, then you can 13 are or you aren't saying that results of the AHS 14 14 go ahead and look at the precision of those study where we have licensed commercial 15 estimates, and then after -- only after those 15 applicators wearing personal protective 16 things have sort of been satisfied do you talk 16 clothing, and you're saying those results are 17 about generalizability. 17 generalizable to people who aren't wearing 18 18 So I think that the Agricultural personal protective clothing. Is that what I 19 19 Health Study has not demonstrated any should understand? 20 association between glyphosate use and NHL. 20 MR. COPLE: Objection. Asked and 21 But, you know, so for all intents and purposes 21 answered. 22 we would assume that those results apply to 22 A. So I mean, in this publication the 23 23 issue of personal protective equipment isn't other participants. It's a little bit like, you 24 know, do studies of exercise and cardiovascular 24 directly addressed, so I think that would 25 25 require some assumptions about these disease in men apply to women. Unless we Page 203 Page 205 1 applicators. It also wasn't addressed in many believe that there's some reason where there 2 would be a biological interaction and those 2 of the case control studies. So we also don't 3 results would no longer apply, we assume that 3 know how often that was used in many of the case 4 the results are generalizable. 4 control studies that were conducted. 5 5 BY MR. MILLER: BY MR. MILLER: 6 Q. You assume the results are 6 Q. Well, how many of the case control 7 7 generalizable to people who don't wear studies that we talked about today required 8 protective clothing when the study is done on 8 participants to be licensed commercial 9 people who wear protective clothing. Do I 9 applicators? 10 understand that correctly? 10 A. I am not certain if any of them 11 11 required participants to be licensed commercial A. So, you know, if you're referring to 12 protective clothing as being something that's 12 applicators. 13 13 sort of on the pathway between glyphosate and Q. So this study, the AHS cohort study, 14 NHL on the causal pathway, so, you know, if, you 14 is different from the case control studies in 15 know, you use glyphosate, you may or may not 15 that way, that it requires licensed commercial 16 wear protective equipment and then that would 16 applicators; right? 17 influence your -- the risk that you have of NHL. 17 A. Yes. And oftentimes cohort studies 18 Q. Are you asking me a question now? 18 are conducted in special populations because 19 A. I'm trying to clarify what the 19 those populations allow for a better study of an 20 20 exposure and an outcome. question is. So I think that if you're talking 21 21 about generalizability, unless we have no reason For instance, in the health 22 to believe -- unless we have a reason to believe 22 professional study that I publish in, you could 23 that the biological relationship between the 23 -- I suppose you could argue that those health 24 exposure and the outcome is different in two 24 professionals are different from the US general 25 25 population, but the reason that that population groups of people, we assume that the results are

	Page 206		Page 208
1	was selected was because it was believed that we	1	Do you see that table?
2	could get higher quality exposure and outcome	2	A. I do.
3	data from those participants than for people in	3	Q. Okay. So for these licensed
4	the general population.	4	commercial applicators, they show non-Hodgkin's
5	And unless you believe that there is a	5	lymphoma, a total of 92 cancers; right?
6	biological difference in the relationship	6	A. That's correct.
7	between exposure and disease in that population	7	Q. And if they've ever used glyphosate,
8	from another population, you can still	8	they have a 20 percent increased risk?
9	generalize those results and your study has	9	A. They did identify a relative risk of
10	better internal validity.	10	1.2; correct.
11	Q. And that's why we showed you	11	Q. And adjusted for age, demographic, and
12	Exhibit 23-24, the Bolognesi study, because it,	12	lifestyle factors and other pesticide use, they
13	in fact, indicates there is a biological	13	had a 10 percent increased risk; right?
14	difference. Remember it says, "A decreased	14	A. Well, again, I think that, you know,
15	level of pesticide-induced genotoxicity was	15	in this particular study I think the internal
16	associated with the proper use of personal	16	validity is sufficient where you would look at
17	protection." That is a biological difference	17	that confidence interval, and you would you
18	if, in fact, Dr. Bolognesi is correct?	18	would see that it is it does include the null
19	MR. COPLE: Objection. Argumentative.	19	value of 1. So it's consistent with there being
20	A. So, again, I haven't reviewed this	20	no association between glyphosate and NHL.
21	paper, and I can't tell you whether that is	21	Q. Let's go to Page 53, if you would,
22	correct. But I do know that because something	22	please. The authors point out limitations of
23	is demonstrated in a genotoxicity study does not	23	their study, and I want to go over some of them.
24	mean that's what we'd see in a population-based	24	Okay?
25	study of humans.	25	A. Okay.
23	study of humans.	23	71. Okty.
	Page 207		Page 209
1	Page 207 BY MR. MILLER:	1	Page 209  Q. "Certain limitations of our data
1 2	BY MR. MILLER:	1 2	
	BY MR. MILLER: Q. Going to the AHS study of 2005, you		Q. "Certain limitations of our data
2	BY MR. MILLER:	2	Q. "Certain limitations of our data hinder the inferences we can make regarding
2	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?	2 3	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific
2 3 4	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.	2 3 4	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."
2 3 4 5	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his	2 3 4 5	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?
2 3 4 5 6	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to	2 3 4 5 6	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of
2 3 4 5 6 7	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his deposition, right?	2 3 4 5 6 7	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?
2 3 4 5 6 7 8	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his deposition, right? A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not	2 3 4 5 6 7 8	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.
2 3 4 5 6 7 8	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his deposition, right? A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.	2 3 4 5 6 7 8	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all
2 3 4 5 6 7 8 9	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?	2 3 4 5 6 7 8 9	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to
2 3 4 5 6 7 8 9 10	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his deposition, right? A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no. Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively	2 3 4 5 6 7 8 9 10	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those
2 3 4 5 6 7 8 9 10 11	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?	2 3 4 5 6 7 8 9 10 11	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.
2 3 4 5 6 7 8 9 10 11 12	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks	2 3 4 5 6 7 8 9 10 11 12	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS
2 3 4 5 6 7 8 9 10 11 12 13	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants
2 3 4 5 6 7 8 9 10 11 12 13 14 15	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of
2 3 4 5 6 7 8 9 10 11 12 13 14 15	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."  That's true, isn't it?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me.  BY MR. MILLER:  Q. Go, if you would, to the Agricultural	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."  That's true, isn't it?  A. So, I mean, it's interesting that the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me.  BY MR. MILLER:  Q. Go, if you would, to the Agricultural Health Study, Page 51.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."  That's true, isn't it?  A. So, I mean, it's interesting that the authors say that, because while they, I think,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	BY MR. MILLER:  Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right?  A. Yes.  Q. And to be clear, you have not read his deposition, right?  A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no.  Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma?  MR. COPLE: Objection. Lacks foundation.  A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me.  BY MR. MILLER:  Q. Go, if you would, to the Agricultural Health Study, Page 51.  A. Okay.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."  That's true, isn't it?  A. So, I mean, it's interesting that the authors say that, because while they, I think, are very conservative in saying that their
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his deposition, right? A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no. Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma? MR. COPLE: Objection. Lacks foundation. A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me. BY MR. MILLER: Q. Go, if you would, to the Agricultural Health Study, Page 51. A. Okay. Q. And it has a table here for	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."  That's true, isn't it?  A. So, I mean, it's interesting that the authors say that, because while they, I think, are very conservative in saying that their confidence intervals are not precise, they're at
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	BY MR. MILLER: Q. Going to the AHS study of 2005, you see Dr. Blair is one of the authors; right? A. Yes. Q. And to be clear, you have not read his deposition, right? A. Again, I believe that I had access to Dr. Blair's deposition, but that I have not reviewed it, no. Q. Would it matter to you if Dr. Alavanja has said that he'd like to say it's positively associated with non-Hodgkin's lymphoma? MR. COPLE: Objection. Lacks foundation. A. Again, I don't know Dr. Alavanja, and I couldn't comment on whether that would be important to me. BY MR. MILLER: Q. Go, if you would, to the Agricultural Health Study, Page 51. A. Okay. Q. And it has a table here for associa or the association of glyphosate	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. "Certain limitations of our data hinder the inferences we can make regarding glyphosate and its association with specific cancer subtypes."  Do you agree with that?  A. Do I agree that certain limitations of the data hinder the inferences they can make?  Q. Yes.  A. Yes, I think that, as I stated, all studies have limitations, and you need to interpret the results in light of those limitations.  Q. And the authors caution that, "The AHS cohort is large, and there are many participants reporting glyphosate use. The small numbers of specific cancers occurring during the follow-up period hindered precise effect estimations."  That's true, isn't it?  A. So, I mean, it's interesting that the authors say that, because while they, I think, are very conservative in saying that their confidence intervals are not precise, they're at least as precise as anything that was in the

	Daga 210		Page 212
	Page 210		Page 212
1	shows an "association between glyphosate and the	1	A. That's correct.
2	risk of multiple myeloma"; right?	2	Q. Do you know if IARC has reviewed
3	A. Sorry, I lost you in there.	3	whether the herbicide 2,4-D is classified as a
4	Q. Second-to-the-last sentence, "a	4	possible carcinogenic to humans, group 2B?
5	suggested association between glyphosate and the	5	MR. COPLE: Objection. Asked and
6	risk of multiple myeloma."	6	answered.
7	Do you see that?	7	A. I don't I don't follow all the IARC
8	A. I don't. Sorry.	8	decisions, and I haven't read anything about
9	Q. Yes, ma'am. Right down here, right	9	that one, no.
10	above (indicating).	10	BY MR. MILLER:
11	A. Okay. Yes, I do see that. Thank you.	11	Q. Would it be important to you you
12	Q. And you and I agree multiple myeloma	12	talked about confounding by other herbicides.
13	is a form of non-Hodgkin's lymphoma?	13	Would it be important to you whether or not
14	A. It was not included in the definition	14	another herbicide was a possible carcinogen or
15	at the time of this publication, but in the	15	not?
16	subsequent AHS follow-up study, it then was	16	A. So it certainly was important to me in
17	included in that definition.	17	evaluating the results of these studies. And,
18	Q. Do you know whether Monsanto considers	18	in fact, when 2,4-D and another chemical was
19	applicators in high-volume sprayers or	19	associated with NHL in the pooling project
20	low-volume sprayers to actually experience more	20	analysis, I felt like those analyses should be
21	exposure?	21	adjusted for those chemicals to be
22	MR. COPLE: Objection. Lacks	22	interpretable.
23	foundation, vague.	23	Q. And 2,4-D IARC found was not a
24	A. As I've said, I've never had any	24	probable carcinogen. Are you aware of that?
25	communications with Monsanto. So I don't I	25	MR. COPLE: Objection. Lacks
	Page 211		Page 213
1	don't know what they think about that.	1	foundation, asked and answered.
2	BY MR. MILLER:	2	A. As I just said, I have not followed
3	Q. Would that be important?		
	O. Would that be important?	3	the IARC decisions on other chemicals.
4		3 4	
4 5	MR. COPLE: Objection. Vague.		the IARC decisions on other chemicals.  MR. MILLER: Here it is,
	<ul><li>MR. COPLE: Objection. Vague.</li><li>A. Could you ask the question again,</li></ul>	4	the IARC decisions on other chemicals.
5	MR. COPLE: Objection. Vague.	4 5	the IARC decisions on other chemicals.  MR. MILLER: Here it is, Exhibit 23-26, IARC monograph evaluating 2,4-D.
5 6	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER:	4 5 6	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26,
5 6 7	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether	4 5 6 7	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC
5 6 7 8	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER:	4 5 6 7 8	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and
5 6 7 8 9	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less	4 5 6 7 8 9	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)
5 6 7 8 9	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers?	4 5 6 7 8 9	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:
5 6 7 8 9 10 11	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague.	4 5 6 7 8 9 10	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the
5 6 7 8 9 10 11	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER:	4 5 6 7 8 9 10 11	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible
5 6 7 8 9 10 11 12	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer.	4 5 6 7 8 9 10 11 12 13	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower
5 6 7 8 9 10 11 12 13	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure	4 5 6 7 8 9 10 11 12 13 14	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?
5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration	4 5 6 7 8 9 10 11 12 13 14	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document
5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure.	4 5 6 7 8 9 10 11 12 13 14 15 16	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.
5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study	4 5 6 7 8 9 10 11 12 13 14 15 16	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing
5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study didn't do that, right?	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing this document. As I've said, I in my own
5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study didn't do that, right? A. Oh, this study did look at	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing this document. As I've said, I in my own work I rely on sort of the primary studies in
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study didn't do that, right? A. Oh, this study did look at intensity-weighted exposure. That's the second	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing this document. As I've said, I in my own work I rely on sort of the primary studies in order to, you know, synthesize the evidence and
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study didn't do that, right? A. Oh, this study did look at intensity-weighted exposure. That's the second column of their results in Table 3.	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing this document. As I've said, I in my own work I rely on sort of the primary studies in order to, you know, synthesize the evidence and come to my own expert opinions on them. So I
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study didn't do that, right? A. Oh, this study did look at intensity-weighted exposure. That's the second column of their results in Table 3. Q. Where are you?	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC  Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing this document. As I've said, I in my own work I rely on sort of the primary studies in order to, you know, synthesize the evidence and come to my own expert opinions on them. So I couldn't really comment on the evidence for
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: Objection. Vague. A. Could you ask the question again, please? BY MR. MILLER: Q. Would it be important to know whether high-volume sprayers actually experience less exposure than low-volume sprayers? MR. COPLE: Objection. Vague. BY MR. MILLER: Q. You can answer. A. I think that you can measure exposure in a way that gets at the intensity and duration of exposure. Q. You haven't done that, and this study didn't do that, right? A. Oh, this study did look at intensity-weighted exposure. That's the second column of their results in Table 3. Q. Where are you? A. Table 3 on Page 52.	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	the IARC decisions on other chemicals.  MR. MILLER: Here it is,  Exhibit 23-26, IARC monograph evaluating 2,4-D.  (Whereupon, Rider Exhibit 23-26, 6/23/15, WHO Press Release, IARC Monographs evaluate DDT, lindane, and 2,4-D, was marked for identification.)  BY MR. MILLER:  Q. And fourth paragraph down, the herbicide 2,4-D was classified as a possible carcinogenic to humans, which is a lower classification than glyphosate; right?  MR. COPLE: Objection. The document speaks for itself, asked and answered.  A. So this is the first time I'm seeing this document. As I've said, I in my own work I rely on sort of the primary studies in order to, you know, synthesize the evidence and come to my own expert opinions on them. So I couldn't really comment on the evidence for 2,4-D.

## Page 216 Page 214 1 work, did you conclude that 2,4-D was as 1 have a variable that's associated with your 2 carcinogenic -- as potentially carcinogenic as 2 exposure, and also risk factor for the disease, 3 glyphosate, or less carcinogenic potentially 3 even just within that particular study 4 population you need a control for that variable 4 than glyphosate? 5 5 in order to have interpretable findings." MR. COPLE: Objection. Asked and 6 And I'm just asking, that applies to 6 answered. 7 7 2,4-D and glyphosate, that's what you had to do; A. I -- as I've said, I have not reviewed 8 all of the primary literature for 2,4-D. But I 8 right? 9 do know that in the analyses where both 9 A. I'm sorry, that's what I had to do? 10 glyphosate and 2,4-D were considered, 2,4-D 10 Q. Did you -- are you an expert? MR. COPLE: Objection. Argumentative. 11 appeared to be a confounder of the association 11 12 between glyphosate and NHL. 12 BY MR. MILLER: 13 BY MR. MILLER: 13 Q. Did you look at this as an expert? 14 14 Q. And how would you define to a I'm just trying --15 layperson what it means to be a confounder in 15 MR. COPLE: Objection. Argumentative. 16 that setting? 16 BY MR. MILLER: 17 A. It's an exposure that's -- or a 17 Q. Back up. variable that's associated with your exposure, 18 I mean, is that what you had to do as 18 expert? Did you look at 2,4-D as a confounder? and also a risk factor for -- an independent 19 19 MR. COPLE: Objection. 20 risk factor for the disease. 20 21 O. That's fair. 21 A. As I've said, in the studies where --22 So 2,4-D is an independent risk factor 22 in many of the studies, especially many of the 23 for non-Hodgkin's lymphoma, and then it has to 23 case control studies, these other chemicals be factored in when you look at these studies? 24 24 weren't even evaluated, so you couldn't look at A. So I would say that if you have a 25 25 2,4-D as a potential confounder. Page 215 Page 217 1 1 variable that's associated with your exposure, But in the studies where data was 2 and also a risk factor for the disease, even 2 collected on 2,4-D, there is evidence that it 3 just within that particular study population, 3 was acting as a confounder, and you can see that 4 it's -- you need to control for that variable in 4 in the pooling project analyses that I mentioned 5 order to have interpretable findings. 5 in my expert report. 6 Q. And that's what we're talking about 6 BY MR. MILLER: 7 7 with 2,4-D; right? Q. So in the AHS study, how did the 8 MR. COPLE: Objection. Asked and 8 investigators get the information from the 9 answered. 9 people in the cohort about the issues that were 10 A. Sorry, what is the question? 10 studied? How did that happen? 11 MR. COPLE: Objection. Vague. 11 BY MR. MILLER: 12 Q. That's what we're talking about with 12 A. So there's a paragraph here in the 13 2,4-D, that applies to your last answer is all 13 paper on Page 49 about exposure assessment, and I'm asking; right? 14 14 the authors talk about how they used a 15 15 MR. COPLE: Objection. Vague, asked self-administered enrollment questionnaire to 16 and answered. 16 collect comprehensive use data on 22 pesticides 17 A. Sorry, if you would ask me a question, 17 and ever/never use information for an additional 18 I'll do my best to answer it, but I don't 18 28 pesticides. 19 19 understand what the question is. And then in terms of outcome, there 20 20 BY MR. MILLER: was linkage to cancer registry data. 21 21 Q. I did, and I'll ask it again. BY MR. MILLER: 22 "Question: That's fair. So 2,4-D is 22 Q. So between 1993 and 1997 they 23 an independent risk factor for non-Hodgkin's you 23 collected questionnaires from people who were 24 look at with these studies? 24 commercial applicators who were attempting to 25 25 "Answer: So I would say that if you get a license to apply restricted-use

	Page 218		Page 220
1	pesticides. Right?	1	A. Well, certainly if what you're you
2	A. That is correct.	2	know, misclassification refers to the exposure
3	Q. Okay. And so on that application they	3	that you're attempting to measure. In the case
4	would be put down either ever or never use	4	of this publication, they were concerned with
5	for chemicals, including glyphosate; right?	5	baseline levels of exposure, again much higher
6	A. No, that's not exactly how it was.	6	levels of exposure than were investigated
7	They collected much more detailed use on 22	7	previously.
8	pesticides, and then only ever/never use on an	8	And while it's true that in your
9	additional 28 pesticides.	9	example that that NHL that was that was
10	Q. Was glyphosate was in the more	10	diagnosed would be attributed to someone who was
11	detailed use?	11	unexposed, the latency period for that exposure
12	A. That is correct.	12	would have likely been too short to be
13	Q. But it was a one-time collection in	13	attributable to glyphosate anyway. So I think
14	'93, '94, '95, '96 to '97?	14	that was part of the motivation for
15	A. It was one questionnaire as of this	15	characterizing their exposures in the way they
16	publication.	16	did.
17	Q. And then there was a second	17	Q. Misclassification bias can drive the
18	publication following that we'll talk about in a	18	findings to the null; right? That's fair?
19	bit.	19	A. That's fair. But it's also important
20	A. Okay.	20	to recognize that when you're looking at
21	Q. That's AHS, can we call that	21	exposures in multiple categories, it can also
22	unpublished?	22	drive them away from the null.
23	A. Or the draft manuscript.	23	MR. MILLER: Excuse me one second.
24	Q. Draft manuscript. But so this	24	Take a short break.
25	the original AHS article was written in 2005;	25	THE WITNESS: Okay.
	Page 219		Page 221
1	right?	1	MR. MILLER: I want to get some water
2	A. It was published in 2005, yes.	2	and
2	<ul><li>A. It was published in 2005, yes.</li><li>Q. And I guess my point is, so if</li></ul>	2 3	and THE WITNESS: Great.
2 3 4	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never	2 3 4	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the
2 3 4 5	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right	2 3 4 5	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32.
2 3 4 5 6	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm.	2 3 4 5 6	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.)
2 3 4 5 6 7	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied	2 3 4 5 6 7	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.
2 3 4 5 6 7 8	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be	2 3 4 5 6 7 8	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50.
2 3 4 5 6 7 8	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used	2 3 4 5 6 7 8	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER:
2 3 4 5 6 7 8 9	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate?	2 3 4 5 6 7 8 9	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work.
2 3 4 5 6 7 8 9 10	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate?  A. Their baseline exposure assessment	2 3 4 5 6 7 8 9 10	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay.
2 3 4 5 6 7 8 9 10 11	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate?  A. Their baseline exposure assessment would be never use.	2 3 4 5 6 7 8 9 10 11	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on
2 3 4 5 6 7 8 9 10 11 12	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate?  A. Their baseline exposure assessment would be never use.  Q. Okay. And then in 2002 if that person	2 3 4 5 6 7 8 9 10 11 12	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line.
2 3 4 5 6 7 8 9 10 11 12 13 14	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down	2 3 4 5 6 7 8 9 10 11 12 13 14	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still
2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate?  A. Their baseline exposure assessment would be never use.  Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right?	2 3 4 5 6 7 8 9 10 11 12 13 14	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. It was published in 2005, yes.  Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right  A. Mm-hmm.  Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate?  A. Their baseline exposure assessment would be never use.  Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right?  A. That's right. Their baseline exposure	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed glyphosate in '98, '99, 2000, 2001, because they	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go. A. Okay.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed glyphosate in '98, '99, 2000, 2001, because they hadn't sprayed it by the time they did that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go. A. Okay. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed glyphosate in '98, '99, 2000, 2001, because they hadn't sprayed it by the time they did that questionnaire, and it wouldn't show up?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go. A. Okay. BY MR. MILLER: Q. We've talked about the Agricultural
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed glyphosate in '98, '99, 2000, 2001, because they hadn't sprayed it by the time they did that questionnaire, and it wouldn't show up? A. That is correct. It was a baseline	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go. A. Okay. BY MR. MILLER: Q. We've talked about the Agricultural Health Study, and we talked about who some of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed glyphosate in '98, '99, 2000, 2001, because they hadn't sprayed it by the time they did that questionnaire, and it wouldn't show up? A. That is correct. It was a baseline exposure measurement.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go. A. Okay. BY MR. MILLER: Q. We've talked about the Agricultural Health Study, and we talked about who some of the authors are.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. It was published in 2005, yes. Q. And I guess my point is, so if somebody comes in in '93 and they say I've never used glyphosate, right A. Mm-hmm. Q and then in year '98 they applied glyphosate, which category are they going to be in, the I used glyphosate or I never used glyphosate? A. Their baseline exposure assessment would be never use. Q. Okay. And then in 2002 if that person gets non-Hodgkin's lymphoma, they'll be put down as the never use glyphosate; right? A. That's right. Their baseline exposure would have been never use; correct. Q. And that's even if they sprayed glyphosate in '98, '99, 2000, 2001, because they hadn't sprayed it by the time they did that questionnaire, and it wouldn't show up? A. That is correct. It was a baseline	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	and THE WITNESS: Great. THE VIDEOGRAPHER: Going off the record. The time is 2:32. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 2:50. BY MR. MILLER: Q. All right, Doctor, back to work. A. Okay. MR. COPLE: Let's just check who is on the line. MR. MILLER: Jeff Traverse, you still there? MR. TRAVERSE: I'm still here. MR. MILLER: Okay. Anybody else? Let's go. A. Okay. BY MR. MILLER: Q. We've talked about the Agricultural Health Study, and we talked about who some of

	Page 222		Page 224
1	A. I do, yes.	1	Exposure Source, it says "Occupational"; right?
2	Q. Let's look at Exhibit 23-27.	2	A. Yes.
3	(Whereupon, Rider Exhibit 23-27,	3	Q. "Epidemiological Evidence," and here
4	Alavanja, et al article, Increased	4	the author of the HS study says, "Positively
5	Cancer Burden Among Pesticide	5	associated with non-Hodgkin's lymphoma."
6	Applicators and Others Due to	6	Do you see that?
7	Pesticide Exposure, was marked for	7	A. I see that that's what it says in the
8	identification.)	8	table, yes.
9	BY MR. MILLER:	9	Q. You disagree with that, right?
10	Q. And this is an article he wrote,	10	A. Well, again, I have not reviewed this
11	follow-up article with a Dr. Ross and others.	11	paper prior to now. It's a pretty thick paper.
12	Were you provided this by the	12	It seems that they're doing their own review of
13	Hollingsworth firm, or have you seen it from	13	the literature, but I really don't know the
14	another source?	14	basis for that review, so I couldn't tell you
15	A. I don't recall reviewing this, but	15	whether I agree or disagree.
16	it's possible that it was in my list of	16	Q. Putting this paper aside, if someone
17	materials, yes.	17	were to tell you that glyphosate is positively
18	Q. Let's just look real quick. And I	18	associated with non-Hodgkin's lymphoma, would
19	only bring it up because he's an author of this	19	you agree with him or disagree with them?
20	study that you rely upon to say that there is	20	A. In the main conclusion of my expert
21	not causality between Roundup and non-Hodgkin's	21	report, I disagree. I believe that there is not
22	lymphoma.	22	sufficient evidence to identify glyphosate as a
23	And if you would with me, please, go	23	causal factor in NHL.
24	to tab 1, and that is at page Table 5. I'm	24	Q. We can put that exhibit aside.
25	not sure what page that is. Table 5.	25	Before the break we were talking about
	Page 223		Page 225
1		1	
1 2	A. Okay.	1 2	misclassification. Do you remember generally
2	<ul><li>A. Okay.</li><li>Q. And to be fair, let's go to the start</li></ul>	2	misclassification. Do you remember generally that line of questioning?
	<ul><li>A. Okay.</li><li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li></ul>	2 3	misclassification. Do you remember generally that line of questioning?  A. Yes, I do.
2 3 4	<ul><li>A. Okay.</li><li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li><li>A. Okay. I'm there.</li></ul>	2 3 4	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors
2	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what</li> </ul>	2 3	misclassification. Do you remember generally that line of questioning?  A. Yes, I do.  Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to
2 3 4 5	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what the table is about, and that is about</li> </ul>	2 3 4 5	misclassification. Do you remember generally that line of questioning?  A. Yes, I do.  Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second
2 3 4 5 6	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what the table is about, and that is about</li> <li>"Epidemiological and Toxicological Evidence of</li> </ul>	2 3 4 5 6	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have
2 3 4 5 6 7	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what the table is about, and that is about</li> <li>"Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and</li> </ul>	2 3 4 5 6 7	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?
2 3 4 5 6 7 8	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what the table is about, and that is about</li> <li>"Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right?</li> </ul>	2 3 4 5 6 7 8	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the
2 3 4 5 6 7 8 9	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what the table is about, and that is about</li> <li>"Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right?</li> <li>A. Yes.</li> </ul>	2 3 4 5 6 7 8	misclassification. Do you remember generally that line of questioning?  A. Yes, I do.  Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to?
2 3 4 5 6 7 8 9	<ul> <li>A. Okay.</li> <li>Q. And to be fair, let's go to the start of the table, which is, I believe yes.</li> <li>A. Okay. I'm there.</li> <li>Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right?</li> <li>A. Yes.</li> <li>MR. COPLE: Objection. Document</li> </ul>	2 3 4 5 6 7 8 9	misclassification. Do you remember generally that line of questioning?  A. Yes, I do.  Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to?  Q. Yes.
2 3 4 5 6 7 8 9 10	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself.	2 3 4 5 6 7 8 9 10	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper.
2 3 4 5 6 7 8 9 10 11	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11	misclassification. Do you remember generally that line of questioning?  A. Yes, I do.  Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to?  Q. Yes.
2 3 4 5 6 7 8 9 10 11 12 13 14	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table	2 3 4 5 6 7 8 9 10 11 12 13	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay.
2 3 4 5 6 7 8 9 10 11 12	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about	2 3 4 5 6 7 8 9 10 11 12 13	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28. (Whereupon, Rider Exhibit 23-28,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that? A. Yes, I do.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28. (Whereupon, Rider Exhibit 23-28, Alavanja, et al paper, Non-Hodgkin Lymphoma Risk and Insecticide,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that? A. Yes, I do. Q. Okay. And this is in 2013, before	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28.  (Whereupon, Rider Exhibit 23-28, Alavanja, et al paper, Non-Hodgkin Lymphoma Risk and Insecticide, Fungicide and Fumigant Use in the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that? A. Yes, I do. Q. Okay. And this is in 2013, before IARC found glyphosate 2A, so the IARC	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28. (Whereupon, Rider Exhibit 23-28, Alavanja, et al paper, Non-Hodgkin Lymphoma Risk and Insecticide, Fungicide and Fumigant Use in the Agricultural Health Study, was marked
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that? A. Yes, I do. Q. Okay. And this is in 2013, before IARC found glyphosate 2A, so the IARC classification is not evaluated; right? Do you	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28.  (Whereupon, Rider Exhibit 23-28, Alavanja, et al paper, Non-Hodgkin Lymphoma Risk and Insecticide, Fungicide and Fumigant Use in the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that? A. Yes, I do. Q. Okay. And this is in 2013, before IARC found glyphosate 2A, so the IARC classification is not evaluated; right? Do you see the columns I'm talking about?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28.  (Whereupon, Rider Exhibit 23-28, Alavanja, et al paper, Non-Hodgkin Lymphoma Risk and Insecticide, Fungicide and Fumigant Use in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Okay. Q. And to be fair, let's go to the start of the table, which is, I believe yes. A. Okay. I'm there. Q. First page of that table, it says what the table is about, and that is about "Epidemiological and Toxicological Evidence of Carcinogenicity for Selected Cancer Sites and Pesticides"; right? A. Yes. MR. COPLE: Objection. Document speaks for itself. BY MR. MILLER: Q. If we go to the second page of Table 5, it says for the pesticide glyphosate about halfway down. Do you see that? A. Yes, I do. Q. Okay. And this is in 2013, before IARC found glyphosate 2A, so the IARC classification is not evaluated; right? Do you	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	misclassification. Do you remember generally that line of questioning?  A. Yes, I do. Q. And Dr. Alavanja, one of the authors of the original AHS study, went on in 2014 to write a paper about the AHS study, a second paper about insecticides and fungicides. Have you been provided that paper?  A. The 2014 AHS cohort study, is that the one you're referring to? Q. Yes. A. Yes, yes, I do have that paper. Q. Let's take a look at it. A. Okay. Q. And that is 23-28. (Whereupon, Rider Exhibit 23-28, Alavanja, et al paper, Non-Hodgkin Lymphoma Risk and Insecticide, Fungicide and Fumigant Use in the Agricultural Health Study, was marked for identification.)

	Page 226		Page 228
1	glyphosate aren't included in that publication.	1	BY MR. MILLER:
2	That's the only information I have.	2	Q. Have you done a research and decided
3	Q. So for whatever reason, the authors	3	not to publish it?
4	decided to not publish the glyphosate	4	A. I think I have definitely been
5	information?	5	involved in studies where we have not included
6	A. The authors decided not to include the	6	every result that we found in a manuscript, but
7	glyphosate information and results in this	7	I don't think I've been involved in work where
8	particular publication.	8	I've consciously decided not to publish, no.
9	Q. Okay. If you could please turn to	9	Q. What was the loss to follow-up on this
10	Page 15 of that report.	10	study?
11	A. Okay.	11	A. So could you could you clarify a
12	Q. What these authors caution is, and I	12	little bit what you meant? Because, for
13	want to look at the last sentence before	13	instance, in terms of cancer outcomes, there was
14	Conclusion, these are the authors of AHS,	14	virtually no loss to follow-up.
15	"Despite the generally high quality of the	15	Q. Concerning cancer outcomes, there was
16	information on pesticide use provided by AHS	16	virtually no loss to follow-up?
17	participants, misclassification of pesticide	17	A. Well, they use linkage with
18	exposures can occur and can have sizable impact	18	registries, so that way they're really able to
19	on estimates of relative risk, which in a	19	capture virtually all of the cancers that would
20	prospective cohort design would tend to produce	20	occur in the cohort.
21	false negative results."	21	Q. And if people don't fill out the
22	That's true, isn't it?	22	second questionnaire let's back up.
23	A. Well, that is what the authors say	23	There was a second questionnaire;
24	here.	24	right?
25	Q. And to be clear, AHS is a prospective	25	A. That's right. A strength of this
	Page 227		Page 229
1	cohort design; right?		1 . 1 1 6 . 4 . 4
		1	updated draft is that they incorporate
2	A. AHS is a prospective cohort study,	2	information on exposure after baseline. So in
	A. AHS is a prospective cohort study, yes.		information on exposure after baseline. So in the example that you gave earlier, now that
2	<ul><li>A. AHS is a prospective cohort study,</li><li>yes.</li><li>Q. We can move off that exhibit.</li></ul>	2 3 4	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as
2	<ul><li>A. AHS is a prospective cohort study, yes.</li><li>Q. We can move off that exhibit.</li><li>Let's look at the draft AHS study</li></ul>	2 3	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide
2 3 4	<ul> <li>A. AHS is a prospective cohort study, yes.</li> <li>Q. We can move off that exhibit.</li> <li>Let's look at the draft AHS study which I believe you rely on in part for your</li> </ul>	2 3 4 5 6	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.
2 3 4 5	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit.  Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?	2 3 4 5	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is
2 3 4 5 6	<ul> <li>A. AHS is a prospective cohort study, yes.</li> <li>Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right? A. I did. I reached my conclusions prior</li> </ul>	2 3 4 5 6	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this
2 3 4 5 6 7	<ul> <li>A. AHS is a prospective cohort study, yes.</li> <li>Q. We can move off that exhibit. Let's look at the draft AHS study</li> <li>which I believe you rely on in part for your opinions; right?</li> <li>A. I did. I reached my conclusions prior to seeing that publication, but it did sort of</li> </ul>	2 3 4 5 6 7	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or
2 3 4 5 6 7 8	<ul> <li>A. AHS is a prospective cohort study, yes.</li> <li>Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right? A. I did. I reached my conclusions prior</li> </ul>	2 3 4 5 6 7 8	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first
2 3 4 5 6 7 8	<ul> <li>A. AHS is a prospective cohort study, yes.</li> <li>Q. We can move off that exhibit. Let's look at the draft AHS study</li> <li>which I believe you rely on in part for your opinions; right?</li> <li>A. I did. I reached my conclusions prior to seeing that publication, but it did sort of</li> </ul>	2 3 4 5 6 7 8	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?
2 3 4 5 6 7 8 9 10 11	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right? A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe. Q. We'll mark it as 23-29.	2 3 4 5 6 7 8 9 10 11	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks
2 3 4 5 6 7 8 9 10	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft	2 3 4 5 6 7 8 9 10	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.
2 3 4 5 6 7 8 9 10 11 12 13 14	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the	2 3 4 5 6 7 8 9 10 11 12 13	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of
2 3 4 5 6 7 8 9 10 11 12 13	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked	2 3 4 5 6 7 8 9 10 11 12 13	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.)	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.) BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right? A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe. Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.) BY MR. MILLER: Q. Here's a copy (handing). Have you	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.) BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?  A. I could tell you if I looked in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER: Q. Here's a copy (handing). Have you found out why the authors decided not to publish this?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right? A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe. Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.) BY MR. MILLER: Q. Here's a copy (handing). Have you found out why the authors decided not to publish	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?  A. I could tell you if I looked in
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER: Q. Here's a copy (handing). Have you found out why the authors decided not to publish this?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?  A. I could tell you if I looked in the paper. It was completed by 36,342 people,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER: Q. Here's a copy (handing). Have you found out why the authors decided not to publish this?  MR. COPLE: Objection. Asked and	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?  A. I could tell you if I looked in the paper. It was completed by 36,342 people, which was 63 percent of the original
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. AHS is a prospective cohort study, yes.  Q. We can move off that exhibit. Let's look at the draft AHS study which I believe you rely on in part for your opinions; right?  A. I did. I reached my conclusions prior to seeing that publication, but it did sort of confirm and strengthen some of the evidence, I believe.  Q. We'll mark it as 23-29. (Whereupon, Rider Exhibit 23-29, Draft Lymphoma risk and pesticide use in the Agricultural Health Study, was marked for identification.)  BY MR. MILLER: Q. Here's a copy (handing). Have you found out why the authors decided not to publish this?  MR. COPLE: Objection. Asked and answered.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	information on exposure after baseline. So in the example that you gave earlier, now that person who was originally classified as unexposed would have an opportunity to provide information, updated information on exposure.  Q. And I guess the good news is 100 percent of these people filled out this questionnaire so we're able to see whether or not they were exposed after the first questionnaire to glyphosate; is that true?  MR. COPLE: Objection. Lacks foundation.  A. It is not true that 100 percent of people responded to the follow-up questionnaire, no.  BY MR. MILLER:  Q. 95 percent?  A. I could tell you if I looked in the paper. It was completed by 36,342 people, which was 63 percent of the original participants.

58 (Pages 226 to 229)

	Page 230		Page 232
1	A. Yes, that is correct.	1	my license, pesticide applicator form, and I say
2	Q. So 37 percent of the people could have	2	I've never used glyphosate, what rich
3	been exposed to glyphosate at any time after	3	information is going to tell the epidemiologist
4	they filled out the first questionnaire, which	4	whether I used glyphosate in the next ten years?
5	was sometime between '93 and '97; right?	5	A. Sure. So fortunately for them,
6	A. The first questionnaire, the baseline	6	36,342 people did fill out that questionnaire,
7	questionnaire, correct, was given between 1993	7	and those people answered questions about a
8	and 1997.	8	variety of different exposures, to glyphosate,
9	Q. So 37 percent of the people did not	9	to other chemicals. There was information on,
10	fill out the second questionnaire.	10	you know, age and sex and race and all of these
11	And when was the second questionnaire	11	other factors that were encompassed in their
12	given out?	12	questionnaire. And they can use all of that
13	A. It says administered about five years	13	information to create models to predict whether
14	after enrollment, so that would have been	14	or not someone was exposed or at what level they
15	between 1998 and 2003.	15	were exposed.
16	Q. And so in my prior example, someone	16	Q. So we were going to use the
17	could have filled out a questionnaire in for	17	information by the 36,000 people that filled out
18	the first time in '97 even, used Roundup from	18	two questionnaires to figure out what the
19	'98 through 2003, died of non-Hodgkin's lymphoma	19	20,000 people who only figured out who only
20	in, say, 2006, and it will be listed as a	20	completed one questionnaire, what they would
21	non-user or never user of glyphosate; right?	21	have answered had they filled out the second
22	A. I actually don't think that's correct,	22	questionnaire?
23	because in their analysis, even for the	23	A. Yes. That is the basic idea, yes.
24	participants that didn't respond to the	24	Q. Why not just get 100 questionnaires
25	follow-up questionnaire, they used information	25	filled out and figure it out from there?
	Page 231		Page 233
1		1	
1 2	on their exposure at baseline in the baseline	1 2	MR. COPLE: Objection.
1 2 3	on their exposure at baseline in the baseline questionnaire and an approach for handling	1 2 3	MR. COPLE: Objection. BY MR. MILLER:
2	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to	2	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother
2	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up	2	MR. COPLE: Objection. BY MR. MILLER:
2 3 4	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.	2 3 4	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER:
2 3 4 5	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?	2 3 4 5	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER:
2 3 4 5 6	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.	2 3 4 5 6	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled
2 3 4 5 6 7	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?	2 3 4 5 6 7	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out?
2 3 4 5 6 7 8	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.	2 3 4 5 6 7 8	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative.
2 3 4 5 6 7 8 9	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for	2 3 4 5 6 7 8	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that
2 3 4 5 6 7 8 9	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.	2 3 4 5 6 7 8 9	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in
2 3 4 5 6 7 8 9 10	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status.
2 3 4 5 6 7 8 9 10 11	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the	2 3 4 5 6 7 8 9 10 11	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is.
2 3 4 5 6 7 8 9 10 11 12 13	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.	2 3 4 5 6 7 8 9 10 11 12	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up
2 3 4 5 6 7 8 9 10 11 12 13 14	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that information together with the information that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the mechanisms of missingness.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that information together with the information that is available on exposure in this case from	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the mechanisms of missingness. So in other words, what factors are
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that information together with the information that is available on exposure in this case from baseline to come up with a model that predicts	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the mechanisms of missingness. So in other words, what factors are associated with both not having that exposure
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that information together with the information that is available on exposure in this case from baseline to come up with a model that predicts whether or not someone is likely or how	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the mechanisms of missingness. So in other words, what factors are associated with both not having that exposure information and yeah, so that would be the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that information together with the information that is available on exposure in this case from baseline to come up with a model that predicts whether or not someone is likely or how likely someone is to have a particular exposure.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the mechanisms of missingness. So in other words, what factors are associated with both not having that exposure information and yeah, so that would be the missing mechanism. And so multiple imputation
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	on their exposure at baseline in the baseline questionnaire and an approach for handling missing data called multiple imputation to incorporate that exposure, that follow-up exposure information.  Q. They guessed?  MR. COPLE: Objection. Argumentative.  A. Multiple imputation isn't guessing.  It's an established epidemiologic method for handling missing data.  BY MR. MILLER:  Q. Tell me how this established epidemiologic method works in lay terms.  A. So the idea is that you use all of the information that you have on these participants.  And, of course, in a cohort study like this, you have very rich information on a variety of different covariates and factors about demographics and lifestyle. You use all of that information together with the information that is available on exposure in this case from baseline to come up with a model that predicts whether or not someone is likely or how	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: Objection. BY MR. MILLER: Q. Why bother MR. COPLE: Objection BY MR. MILLER: Q with 36,000 questionnaires filled out? MR. COPLE: Objection. Argumentative. A. Because the idea is the more data that you have, the better your models will be in terms of predicting exposure status. BY MR. MILLER: Q. Because the more loss of follow-up there is, the less accurate the study is. That's true, isn't it? A. No, I think that's too general. I mean, the accuracy of multiple imputation relies more on our assumptions about what this is going to sound very epi speak but the mechanisms of missingness. So in other words, what factors are associated with both not having that exposure information and yeah, so that would be the

	Dama 224		Dama 226
	Page 234		Page 236
1	In other words, it's okay if the data	1	Q. Turn to Page 8, please.
2	is missing based on other factors that we	2	A. Okay.
3	measure. For instance, if more older people	3	Q. The authors right here in the middle
4	were non-responders than younger people, that's	4	of the page on the study that you rely upon,
5	okay, as long as we've measured information on	5	"Not sure what to do but the whole thing just
6	age.	6	seems messy." How does it strike you to rely
7	So it's not just an issue of how many	7	upon data not published where the authors think
8	people completed the follow-up questionnaire.	8	the whole thing is messy?
9	It's the mechanism of the missingness that's	9	A. Well, this sentence isn't referring to
10	important.	10	the whole paper. It's referring to the issue of
11	Q. The mechanism of the missingness	11	how they deal with the fact that the definition
12	A. Yes.	12	of NHL has changed in the interim between their
13	Q that's important?	13	2005 publication and this publication. So they
14	A. Yeah.	14	have to make sort of decisions, analytic
15	Q. Okay. So using the mechanism of the	15	decisions, and decisions in terms of how they
16	missingness formula, could we have only had 5	16	present their data so that the results are both
17	percent fill out, or 10 percent, and still have	17	consistent with the current definition, but also
18	good data?	18	can be readily compared to the previous results.
19	A. Again, I couldn't tell you that	19	So that comment about it being messy,
20	hypothetically. I'm not I'm not sure.	20	it's dealing with one very specific issue in
21	Q. But it's the more data you have	21	this manuscript.
22	missing, the less reliable the study is; isn't	22	Q. They also don't include multiple
23	that a fair statement?	23	myeloma; right?
24	A. I don't think that's true. Again,	24	A. Oh, they do. They look at multiple
25	what I was just saying is it actually depends	25	myeloma both included in the overall definition
	5 005		
	Page 235		Page 237
1		1	
1 2	much more on why the data is missing than how	1 2	of NHL consistent with the new definition, but
2	much more on why the data is missing than how much data is missing.	2	of NHL consistent with the new definition, but then they also look at it as a separate outcome.
2 3	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on	2 3	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on
2 3 4	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?	2 3 4	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to
2 3	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up	2 3	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our
2 3 4 5	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for	2 3 4 5	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."
2 3 4 5 6	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent	2 3 4 5 6	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our
2 3 4 5 6 7	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they	2 3 4 5 6 7	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?
2 3 4 5 6 7 8	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent	2 3 4 5 6 7 8	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's
2 3 4 5 6 7 8	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with	2 3 4 5 6 7 8	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they
2 3 4 5 6 7 8 9 10	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the	2 3 4 5 6 7 8 9 10	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and
2 3 4 5 6 7 8 9	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data	2 3 4 5 6 7 8 9	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to
2 3 4 5 6 7 8 9 10 11	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the	2 3 4 5 6 7 8 9 10 11	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and
2 3 4 5 6 7 8 9 10 11 12	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.	2 3 4 5 6 7 8 9 10 11 12	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.
2 3 4 5 6 7 8 9 10 11 12 13	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a	2 3 4 5 6 7 8 9 10 11 12 13 14	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with
2 3 4 5 6 7 8 9 10 11 12 13 14	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the	2 3 4 5 6 7 8 9 10 11 12 13 14	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond
2 3 4 5 6 7 8 9 10 11 12 13 14 15	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.  Q. Okay.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort of editorial decisions and decisions about how
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.  Q. Okay.  A. I said that you the reasons for why	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort of editorial decisions and decisions about how to present that data in light of, you know,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.  Q. Okay.  A. I said that you the reasons for why someone doesn't respond. So, again, in my	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort of editorial decisions and decisions about how to present that data in light of, you know, other things that have changed in the field.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.  Q. Okay.  A. I said that you the reasons for why someone doesn't respond. So, again, in my example from before, if it happens to be that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort of editorial decisions and decisions about how to present that data in light of, you know, other things that have changed in the field.  Q. Go to Page 71, if you please, ma'am.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.  Q. Okay.  A. I said that you the reasons for why someone doesn't respond. So, again, in my example from before, if it happens to be that older people don't respond to the questionnaire	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort of editorial decisions and decisions about how to present that data in light of, you know, other things that have changed in the field.  Q. Go to Page 71, if you please, ma'am.  A. Okay.  Q. Do you see the asterisk at the bottom of the page there?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	much more on why the data is missing than how much data is missing.  Q. Well, why is data missing on 20,000 people?  A. It's very common in follow-up questionnaires in cohort studies for not for everyone to not answer subsequent questionnaires. You know, people get busy, they have other things going on. But as long as those the factors that are associated with why those people didn't fill out the questionnaire are somehow captured in the data that was collected by the cohort, that's not a problem.  Q. So they asked 36,000 people why the other 20,000 weren't responding?  A. No, that's not what I said.  Q. Okay.  A. I said that you the reasons for why someone doesn't respond. So, again, in my example from before, if it happens to be that older people don't respond to the questionnaire for whatever reason, that's not a problem, as	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	of NHL consistent with the new definition, but then they also look at it as a separate outcome.  Q. AB, I believe Aaron Blair, it's on Page 8 writes, "I wonder if the decision not to include myeloma might seem inconsistent with our decision to go with a new definition of NHL."  Do you understand what he's referring to there?  A. Yeah, I think I think, again, he's talking commenting on the analyses where they look specifically at the subtypes of NHL and sort of questioning what category it's best to include multiple myeloma in.  But, again, this really has to do with trying to address a situation that was beyond the investigators' control. It's just the definition changed, and so you have to make sort of editorial decisions and decisions about how to present that data in light of, you know, other things that have changed in the field.  Q. Go to Page 71, if you please, ma'am.  A. Okay.  Q. Do you see the asterisk at the bottom

	Page 238		Page 240
1	Q. Yes, ma'am.	1	Q. You just don't know?
2	A. No, I don't see an asterisk. Sorry.	2	A be certain, but in my own working
3	Q. I'm sorry, a footnote 2. Excuse me.	3	on publications, it's not unusual for the
4	Page 71.	4	publication to be circulated throughout the
5	A. My Page 71 doesn't have any footnote.	5	co-authors a number of times for comments.
6	Q. May I see it?	6	At the same time, it's very clear in
7	A. Sure (handing).	7	reading the publication that, you know, while
8	Q. Thank you. That could be a problem,	8	there's still some comments in the margins and
9	couldn't it?	9	some things in the some additional comments
10	Yes, ma'am, here you go?	10	in the narrative part of the publication, that
11	A. Okay.	11	this is a publication that if sent out for peer
12	MS. MILLER: That's the problem with	12	review to me is a publishable paper.
13	using drafts.	13	Q. I have a few questions off that.
14	BY MR. MILLER:	14	Number one, you called it a
15	Q. Well, look at your Page 71. I	15	publication, but it's never been published.
16	there's something different between that and my	16	A. A manuscript. Excuse me.
17	work draft. I don't know what.	17	Q. A draft manuscript?
18	MR. COPLE: What draft are you	18	A. It is a draft of a manuscript, yes.
19	referring to?	19	Q. It is a fourth or fifth draft of this
20	MR. HOLLINGSWORTH: Was the cover page	20	manuscript apparently; right?
21	there?	21	A. It's difficult to tell.
22	MR. MILLER: Mine is March	22	Q. And we don't know if it's been
23	September 1st, 2017, yeah.	23	rejected for publication or submitted for
24	MR. HOLLINGSWORTH: September 1st,	24	publication; it's just too early in the process,
25	2017.	25	isn't it?
	Page 239		Page 241
1		1	Page 241  A. Oh. I don't I don't know that it's
1 2	MR. MILLER: September 1 at the bottom	1 2	A. Oh, I don't I don't know that it's
	MR. MILLER: September 1 at the bottom right there.		A. Oh, I don't I don't know that it's too early in the process. We're just not aware
2	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September	2	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking
2	MR. MILLER: September 1 at the bottom right there.	2 3	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't
2 3 4	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.	2 3 4	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know
2 3 4 5	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.	2 3 4 5	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of
2 3 4 5 6	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you	2 3 4 5 6	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.
2 3 4 5 6 7	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?	2 3 4 5 6 7	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate
2 3 4 5 6 7 8	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to	2 3 4 5 6 7 8	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?
2 3 4 5 6 7 8 9	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?	2 3 4 5 6 7 8	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to
2 3 4 5 6 7 8 9	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.	2 3 4 5 6 7 8 9	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their
2 3 4 5 6 7 8 9 10	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.	2 3 4 5 6 7 8 9 10	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this
2 3 4 5 6 7 8 9 10 11	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their
2 3 4 5 6 7 8 9 10 11 12	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.	2 3 4 5 6 7 8 9 10 11 12	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't
2 3 4 5 6 7 8 9 10 11 12 13 14	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through	2 3 4 5 6 7 8 9 10 11 12 13 14	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide
2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through there's a lot of them. It appears to be	2 3 4 5 6 7 8 9 10 11 12 13 14	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through there's a lot of them. It appears to be  March 18th, 2013, then March 21st, 2013, then	2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy enough in their view to submit for publication?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through there's a lot of them. It appears to be  March 18th, 2013, then March 21st, 2013, then  October 24th, 2016. Then my copy goes as far as	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through there's a lot of them. It appears to be  March 18th, 2013, then March 21st, 2013, then  October 24th, 2016. Then my copy goes as far as  September 1, 2017. Apparently you have one that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy enough in their view to submit for publication?  A. I suppose that, you know, it is no
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through there's a lot of them. It appears to be  March 18th, 2013, then March 21st, 2013, then  October 24th, 2016. Then my copy goes as far as September 1, 2017. Apparently you have one that goes even farther than that?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy enough in their view to submit for publication?  A. I suppose that, you know, it is no one can submit a manuscript on behalf of other
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER: I don't	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy enough in their view to submit for publication?  A. I suppose that, you know, it is no one can submit a manuscript on behalf of other authors. That's not the process that we've set
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER: I don't	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy enough in their view to submit for publication?  A. I suppose that, you know, it is no one can submit a manuscript on behalf of other authors. That's not the process that we've set up. But as I've said before, it would be a
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. MILLER: September 1 at the bottom right there.  MS. MILLER: And hers is September something else.  A. 9/19.  MR. MILLER: That's a problem. Do you have a clean one that she can work off?  MR. HOLLINGSWORTH: Are you going to mark both of them?  MS. MILLER: I don't have it.  MR. MILLER: I don't have it.  BY MR. MILLER:  Q. I guess here's my question, ma'am.  It just looks like there's March through there's a lot of them. It appears to be  March 18th, 2013, then March 21st, 2013, then October 24th, 2016. Then my copy goes as far as September 1, 2017. Apparently you have one that goes even farther than that?  A. The last date is 9/19/2017.  Q. 9/19/2017.  So do you understand this to be	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Oh, I don't I don't know that it's too early in the process. We're just not aware of the status of the manuscript without talking to the authors, I suppose. But, again, I don't think I need to speak to the authors to know that this manuscript, if cleaned up in terms of the formatting, is certainly publishable.  Q. If the authors felt it was appropriate enough to submit for publication?  A. Well, of course the authors get to decide, you know, when to submit their publication. But I think it's a shame that this has not been submitted for publication and isn't widely available.  Q. Not only do the authors get to decide when to submit, but if to submit, if it's worthy enough in their view to submit for publication?  A. I suppose that, you know, it is no one can submit a manuscript on behalf of other authors. That's not the process that we've set up. But as I've said before, it would be a shame if the scientific community was not given

	Page 242		Page 244
1	A. I have heard of that, but I really	1	Editors. That's what it's from.
2	have limited familiarity with them.	2	Now, do you agree with the statement I
3	Q. Let's take a look at what they have to	3	read, or no?
4	say on this issue.	4	A. The statement, "Moreover, media
5	MR. COPLE: Before we move on, are you	5	reports of scientific research before the work
6	going to mark for the record the copy you were	6	has been peer-reviewed and fully vetted may lead
7	working off?	7	to dissemination of inaccurate or premature
8	MR. MILLER: It's got my work notes on	8	conclusions." As a general statement, I do
9	it. So the answer is no, I'm not going to mark	9	disagree with that. I think that that's often,
10	something with my personal impressions on it.	10	and maybe more often, not the case.
11	MR. COPLE: We're going to object to	11	And, in fact, just to add to that, I
12	that, subject to discussion later. You were	12	think it's sort of a dated view of how the
13	asking a whole series of questions. We can mark	13	publication process works now. For instance, if
14	it in the record, if need be, about a manuscript	14	you were to present results at a scientific
15	that the witness did not have access to.	15	conference, those results would typically be
16	MR. MILLER: We don't agree on that	16	available publicly on Google or on the website,
17	representation. The record speaks for itself,	17	and that does not then prevent the accurate
18	Counselor.	18	dissemination of scientific findings in a
19	BY MR. MILLER:	19	peer-reviewed journal.
20	Q. I'm going to show you what's been	20	Q. Turn, if you would, please, ma'am, to
21	marked as Exhibit 23-30, International Committee	21	Page 19.
22	of Journal Editors, "Uniform requirements for	22	A. Okay.
23	manuscripts submitted to biomedical journals.	23	Q. This is Roman Number IV, Section A.9,
24		24	References. And I'm reading the last sentence.
25		25	"Information from manuscripts submitted but not
1	Page 243 (Whereupon Rider Exhibit 23-30)	1	Page 245
1 2	(Whereupon, Rider Exhibit 23-30,	1 2	accepted should be cited in the text as
1 2 3	(Whereupon, Rider Exhibit 23-30, International Committee of Medical	2	accepted should be cited in the text as 'unpublished observations' with written
2	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements	2 3	accepted should be cited in the text as 'unpublished observations' with written permission from the source."
2	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to	2 3 4	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right?
2 3 4	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for	2 3 4 5	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an
2 3 4 5	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)	2 3 4	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?
2 3 4 5 6	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER:	2 3 4 5 6	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not
2 3 4 5 6 7	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)	2 3 4 5 6 7	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?
2 3 4 5 6 7 8	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you.	2 3 4 5 6 7 8	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was
2 3 4 5 6 7 8	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you. A. Okay.	2 3 4 5 6 7 8	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't
2 3 4 5 6 7 8 9	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to	2 3 4 5 6 7 8 9	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it
2 3 4 5 6 7 8 9 10	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24.	2 3 4 5 6 7 8 9 10	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't
2 3 4 5 6 7 8 9 10 11	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay.	2 3 4 5 6 7 8 9 10 11	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its
2 3 4 5 6 7 8 9 10 11 12 13	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says,	2 3 4 5 6 7 8 9 10 11 12	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.
2 3 4 5 6 7 8 9 10 11 12 13 14	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research	2 3 4 5 6 7 8 9 10 11 12 13 14	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written
2 3 4 5 6 7 8 9 10 11 12 13 14	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully	2 3 4 5 6 7 8 9 10 11 12 13 14	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.) BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions."	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no familiarity with. I'm reading this for the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions." That's true, isn't it?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions." That's true, isn't it? A. I have never seen this document	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no familiarity with. I'm reading this for the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions." That's true, isn't it? A. I have never seen this document before. I don't really even know what it's from. Q. Well, I'll tell you what it's from.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no familiarity with. I'm reading this for the first time. But if it was my own unpublished
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions." That's true, isn't it? A. I have never seen this document before. I don't really even know what it's from. Q. Well, I'll tell you what it's from. It's from the published in the Journal of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no familiarity with. I'm reading this for the first time. But if it was my own unpublished data, meaning I had presented some data at a conference and now someone wants to cite it, I think it is sort of the the polite thing to
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions." That's true, isn't it? A. I have never seen this document before. I don't really even know what it's from. Q. Well, I'll tell you what it's from. It's from the published in the Journal of Pharmacology and Pharmacotherapeutics, it's the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no familiarity with. I'm reading this for the first time. But if it was my own unpublished data, meaning I had presented some data at a conference and now someone wants to cite it, I think it is sort of the the polite thing to do in the scientific community would be to ask
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	(Whereupon, Rider Exhibit 23-30, International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, was marked for identification.)  BY MR. MILLER: Q. I have a few questions for you. A. Okay. Q. If you turn with me, please, to Page 15 of 24. A. Okay. Q. Look at the first paragraph. It says, "Moreover, media reports of scientific research before the work has been peer-reviewed and fully vetted may lead to dissemination of inaccurate or premature conclusions." That's true, isn't it? A. I have never seen this document before. I don't really even know what it's from. Q. Well, I'll tell you what it's from. It's from the published in the Journal of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	accepted should be cited in the text as 'unpublished observations' with written permission from the source."  That's basically what this is; right? This draft that you're looking at is an unpublished observation?  A. It's true that this manuscript has not been published in a journal, and so if I was going to cite it in my own work, I wouldn't really have any other choice but to say that it was an unpublished manuscript. But that doesn't say anything about the quality or its suitability for publication.  Q. You're supposed to obtain written permission from the source before citing unpublished observations; right?  A. I mean, again, this is recommendations from some kind of committee that I have no familiarity with. I'm reading this for the first time. But if it was my own unpublished data, meaning I had presented some data at a conference and now someone wants to cite it, I think it is sort of the the polite thing to

	Page 246		Page 248
1	work in their paper, given that it's	1	A. I do not treat patients, that is
2	unpublished.	2	correct.
3	Q. And did you make any effort to ask any	3	Q. Have you heard of the 9/11 Fund?
4	of the authors of the unpublished draft of AHS	4	MR. COPLE: Objection. Lacks
5	whether you could use their materials here in	5	foundation.
6	this exercise?	6	A. I don't believe so. I'm not sure.
7	A. As I mentioned before, I've had no	7	BY MR. MILLER:
8	contact with any of the authors.	8	Q. September 11th, 2001, we all know as
9	Q. We're going to switch subjects here.	9	Americans had that tragedy, and there is a fund
10	It would be fair to say you don't	10	set up in New York for injuries which may or may
11	consider yourself an expert on non-Hodgkin's	11	not have been caused by the damage from the
12 13	lymphoma?	12	World Trade Center. And I'm going to show you a latency document from the 9/11 Fund. Okay?
14	A. No, I don't think that's true. I'm a cancer epidemiologist. And while my own	14	A. Okay.
15	research focus hasn't been NHL, I am my	15	(Whereupon, Rider Exhibit 23-31, World
16	training and experience makes me very	16	Trade Center Health Program, Minimum
17	well-equipped to evaluate the epidemiologic	17	Latency & Types or Categories of
18	literature on glyphosate and NHL. And, in fact,	18	Cancer, was marked for
19	in terms of peer review, I'm very frequently	19	identification.)
20	asked to peer review papers that aren't related	20	BY MR. MILLER:
21	to prostate cancer or the exposures that I've	21	Q. If you look with me on the Executive
22	studied in the past.	22	Summary, number 3, it lists leukemias,
23	Q. Would it be fair to say as a general	23	lymphomas, hematopoietic cancers, and it has
24	observation as a person who has studied cancer	24	.4 years for latency for hematopoietic cancers.
25	that solid tumors take longer to develop than	25	Let me back up and ask you first, can
	Page 247		<b>5</b> 040
	rage 247		Page 249
1	blood tumors?	1	we agree that non-Hodgkin's lymphoma is a
2	blood tumors?  MR. COPLE: Objection. Lacks	2	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?
2	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.	2 3	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.
2 3 4	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make	2 3 4	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to
2 3 4 5	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no.	2 3 4 5	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for
2 3 4 5 6	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:	2 3 4 5 6	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?
2 3 4 5 6 7	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?	2 3 4 5 6 7	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and
2 3 4 5 6 7 8	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and	2 3 4 5 6 7 8	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.
2 3 4 5 6 7 8	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.	2 3 4 5 6 7 8	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes. Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers
2 3 4 5 6 7 8 9	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean,	2 3 4 5 6 7 8 9	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for
2 3 4 5 6 7 8 9 10	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease	2 3 4 5 6 7 8 9 10	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You
2 3 4 5 6 7 8 9 10 11	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer	2 3 4 5 6 7 8 9 10 11	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a
2 3 4 5 6 7 8 9 10 11 12	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of	2 3 4 5 6 7 8 9 10 11 12	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors
2 3 4 5 6 7 8 9 10 11 12 13	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no.  BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history.	2 3 4 5 6 7 8 9 10 11 12 13	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list
2 3 4 5 6 7 8 9 10 11 12	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history.  So I wouldn't be willing to say that blood	2 3 4 5 6 7 8 9 10 11 12 13 14 15	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really
2 3 4 5 6 7 8 9 10 11 12 13 14 15	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no.  BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history.	2 3 4 5 6 7 8 9 10 11 12 13	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	blood tumors?  MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history.  So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history.  So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:  Q. So it's fair to say you don't have an
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history.  So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa.  BY MR. MILLER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history. So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa. BY MR. MILLER:  Q. You're, of course, not an oncologist; correct?  A. I am not trained as an oncologist, no.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:  Q. So it's fair to say you don't have an opinion, to a reasonable degree of medical
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know?  MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history. So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa. BY MR. MILLER:  Q. You're, of course, not an oncologist; correct?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:  Q. So it's fair to say you don't have an opinion, to a reasonable degree of medical certainty, about a different minimum latency
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know? MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history. So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa. BY MR. MILLER: Q. You're, of course, not an oncologist; correct?  A. I am not trained as an oncologist, no. Q. You're not a medical doctor? A. I have a doctorate in epidemiology,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:  Q. So it's fair to say you don't have an opinion, to a reasonable degree of medical certainty, about a different minimum latency period?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know? MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history. So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa. BY MR. MILLER: Q. You're, of course, not an oncologist; correct?  A. I am not trained as an oncologist, no. Q. You're not a medical doctor? A. I have a doctorate in epidemiology, not in medicine.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:  Q. So it's fair to say you don't have an opinion, to a reasonable degree of medical certainty, about a different minimum latency period?  A. Again, talking about the minimum
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: Objection. Lacks foundation, vague.  A. Again, I wouldn't be willing to make that sort of gross generalization, no. BY MR. MILLER:  Q. Does that mean you don't know? MR. COPLE: Objection. Asked and answered.  A. No, it just doesn't but I mean, cancer is an extremely heterogeneous disease and, in fact, even within particular cancer types there is a tremendous amount of variability in terms of their natural history. So I wouldn't be willing to say that blood cancers are quicker growing than solid tumors, or vice-versa. BY MR. MILLER: Q. You're, of course, not an oncologist; correct?  A. I am not trained as an oncologist, no. Q. You're not a medical doctor? A. I have a doctorate in epidemiology,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	we agree that non-Hodgkin's lymphoma is a hematopoietic cancer?  A. Yes.  Q. And you do not have any expertise to dispute that the minimum latency period for non-Hodgkin's lymphoma is .4 years?  MR. COPLE: Objection. Asked and answered, lacks foundation.  A. I discuss latency periods for cancers in my expert report, and again, this is for every cancer. This is always an estimate. You know, of course, in an individual there is a range, but I have no idea where these authors got the information leading to them to list .4 years as a minimum latency, so I really couldn't comment on that.  BY MR. MILLER:  Q. So it's fair to say you don't have an opinion, to a reasonable degree of medical certainty, about a different minimum latency period?  A. Again, talking about the minimum median latency period, I don't think, you know,

Page 252 Page 250 1 Q. I want to show you a study on 1 topic that I haven't reviewed with respect to 2 hematopoietic cancers from Harvard University, 2 glyphosate exposure. I think I've been fairly 3 the Residual "Exposure to Pesticide During 3 clear about my feelings about meta-analyses, is 4 Childhood and Childhood Cancers: A 4 that I think it's necessary to go to the primary 5 Meta-Analysis." We'll mark this one as 5 studies that are included in those 6 6 Exhibit 32. meta-analyses, because all of the shortcomings 7 (Whereupon, Rider Exhibit 23-32, Chen, 7 and issues with internal validity in those 8 et al article, Residential Exposure to 8 studies carry forward to a meta-analysis. So I 9 Pesticide During Childhood and 9 would definitely want to be able to see the 10 Childhood Cancers: A Meta-Analysis, 10 primary studies. 11 was marked for identification.) 11 And then in terms of that statement, 12 BY MR. MILLER: 12 "Children greatly increase their chances of 13 Q. Do you know any of these authors? 13 pesticide exposure when they play on 14 A. I do not, no. pesticide-treated surfaces such as a floor or 14 15 Q. Department of environmental health, 15 lawn and then put their hands in their mouths," 16 Harvard T Chan School of Public Health, the year 16 I would also want to see where the evidence 17 is 2015. 17 comes from for that particular statement. 18 You don't know Dr. Lu, I guess? 18 Q. Sure. MR. COPLE: Objection. Asked and 19 19 Children can get leukemia as young as 20 20 two, sadly, isn't that true? 21 A. No, I don't know any of these authors. 21 MR. COPLE: Objection. Vague, lacks 22 BY MR. MILLER: 22 foundation. 23 Q. Okay. The context of this, the first 23 A. I know that very young children can be sentence says, "There is increasing concern 24 24 affected with leukemia, yes. about chronic low-level pesticide exposure 25 25 BY MR. MILLER: Page 251 Page 253 1 during childhood and its influence on childhood Q. So it certainly would be true if 2 cancers." 2 someone got leukemia at the age of two, the 3 And they report, if you would look, 3 latency period for that individual could not 4 please, at the Data Extraction section, 4 have been any more than two years; that's the 5 5 childhood lymphomas, an odds ratio of 1.34. And extent of their life at that point in time? 6 here's my question. 6 MR. COPLE: Objection. Lacks 7 7 Have you ever commented on this study foundation. 8 and the article that you've read or written? I 8 A. Well, I actually -- I think that's 9 9 apologize, bad question, let's try again. That incorrect, because many people investigate 10 was really a bad question. Made no sense at all 10 in utero exposures with respect to cancer risk. 11 to me. Let's start again. 11 But certainly there is a limit on the latency 12 12 In this article, if we could please go period. 13 13 to Page 2, second full sentence, it says, I also think we know that, in general, "Children greatly increase their chance of 14 the causes of childhood cancers are typically 14 15 15 very, very different than the causes of adult pesticide exposure when they play on 16 pesticide-treated surfaces such as a floor or 16 cancers. 17 lawn and then put their hands in their mouths." 17 BY MR. MILLER: My question is, would this add to the 18 O. What are the other causes of childhood 18 19 cancer versus causes of adult cancer? 19 body of literature for those of us that believe 20 MR. COPLE: Objection. Vague. 20 there's an association between glyphosate and A. So for many cancers we think of the 21 21 non-Hodgkin's lymphoma, or would the answer be cancers that occur at young age and old age as 22 22 no, it does not? 23 being sort of etiologically distinct diseases, 23 MR. COPLE: Objection. Vague. so diseases for which different risk factors 24 A. So this is a meta-analysis I've never 24 25 would exist. 25 seen before on childhood cancers, which is a

	Page 254		Page 256
1	BY MR. MILLER:	1	The first issue is whether you believe the point
2	Q. Here's a pesticide exposure in	2	estimate that's identified in a study to be
3	children of non-Hodgkin's lymphoma exposure	3	reflective of the truth in terms of the true
4	study from Harvard I'd like to ask you just one	4	causal association between the exposure and the
5	or two questions about.	5	outcome. And as I've said before, if you don't
6	First off, do you know any of these	6	believe and have faith in that point estimate,
7	authors?	7	there's really no point in determining how
8	(Whereupon, Rider Exhibit 23-33,	8	precise that estimate is, or how likely it is to
9	Buckley, et al article, Pesticide	9	be due to chance if it's wrong.
10	Exposures in Children with Non-Hodgkin	10	Only after you've established the
11	Lymphoma, was marked for	11	internal validity of the study would then you go
12	identification.)	12	on to say, okay, well, now how likely are the
13	BY MR. MILLER:	13	results that I found due to chance, and that's
14	Q. 23-33, and this is Dr. Buckley and	14	where statistical significance plays a role.
15	others article.	15	BY MR. MILLER:
16	A. I recognize Dr. Robison's name, but we	16	Q. I'm going to show you what we've
17	have never collaborated, I don't know that we've	17	marked as Exhibit 34. And I'm showing my age
18	ever met in person. But otherwise, no.	18	here, it's a tweet, whatever that means.
19	Q. This article written in year 2000, the	19	(Whereupon, Rider Exhibit 23-34, Copy
20	conclusion says, "The results of the current	20	of Tweet of Jennifer Rider, was marked
21	study provide further evidence linking pesticide	21	for identification.)
22	exposure to the risk of non-Hodgkin's lymphoma,	22	BY MR. MILLER:
23	but the authors were unable to implicate any	23	Q. I think that's you in part of that
24	specific agent."	24	tweet; is that right?
25	Do you see that?	25	A. Yes, this is from my Twitter page.
			, , , , , , , , , , , , , , , , , , , ,
	Page 255		Page 257
1	A. I do.	1	Q. Okay. I apologize for my paralegal
1 2	Q. Okay. So let me back up and ask you,	1 2	was looking at your Twitter page, but I didn't
	Q. Okay. So let me back up and ask you, is farming generally considered a risk for	l .	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about
2	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?	2	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty
2	<ul><li>Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?</li><li>MR. COPLE: Objection. Vague.</li></ul>	2	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm
2 3 4	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies	2 3 4	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is
2 3 4 5	<ul><li>Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?</li><li>MR. COPLE: Objection. Vague.</li></ul>	2 3 4 5	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm
2 3 4 5 6	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies	2 3 4 5 6	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is
2 3 4 5 6 7	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.	2 3 4 5 6 7 8	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more
2 3 4 5 6 7 8	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being	2 3 4 5 6 7 8	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place,
2 3 4 5 6 7 8 9 10	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming	2 3 4 5 6 7 8 9 10	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically
2 3 4 5 6 7 8 9	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?	2 3 4 5 6 7 8 9 10 11	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything
2 3 4 5 6 7 8 9 10	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to	2 3 4 5 6 7 8 9 10	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity
2 3 4 5 6 7 8 9 10 11	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?	2 3 4 5 6 7 8 9 10 11	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval
2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?	2 3 4 5 6 7 8 9 10 11 12 13 14 15	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.  Q. Statistical significance, you believe,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?  A. Yeah. So in this particular example
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.  Q. Statistical significance, you believe, is not necessary to have a valid scientific	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?  A. Yeah. So in this particular example that I'm tweeting about is a little bit
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.  Q. Statistical significance, you believe,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?  A. Yeah. So in this particular example that I'm tweeting about is a little bit different because it's a randomized trial, not
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.  Q. Statistical significance, you believe, is not necessary to have a valid scientific finding; true?  MR. COPLE: Objection. Vague, lacks	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?  A. Yeah. So in this particular example that I'm tweeting about is a little bit different because it's a randomized trial, not an observational study. And, you know, one
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.  Q. Statistical significance, you believe, is not necessary to have a valid scientific finding; true?  MR. COPLE: Objection. Vague, lacks foundation, misstates prior testimony.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?  A. Yeah. So in this particular example that I'm tweeting about is a little bit different because it's a randomized trial, not an observational study. And, you know, one might argue that hypothesis testing and p-values
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Okay. So let me back up and ask you, is farming generally considered a risk for non-Hodgkin's lymphoma?  MR. COPLE: Objection. Vague.  A. Well, I think that a number of studies have indicated increased risks of NHL in farmers even prior to the to glyphosate being available on the market, yes.  BY MR. MILLER:  Q. So we can comfortably say that farming increases the risk of non-Hodgkin's lymphoma?  A. I believe farming does appear to increase the risk of non-Hodgkin's lymphoma, yes.  Q. And how many studies showed that before glyphosate was on the market?  A. I would have to look at my expert report, but I do cite some of them there.  Q. Statistical significance, you believe, is not necessary to have a valid scientific finding; true?  MR. COPLE: Objection. Vague, lacks	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	was looking at your Twitter page, but I didn't know how to do it, so but we only ask about it because you apparently look pretty enthusiastic about just correct me if I'm wrong, but apparently the issue in this tweet is that you don't think p-values are that important for scientific conclusions; is that fair?  A. I think p-values, and more specifically hypothesis testing, has a place, but a very small or very statistically significant p-value doesn't tell you anything about the quality of the study or the validity of your point estimate.  Q. On the flip side of that, even if the p-value does not give you a confidence interval of 95 percent, you can still find important scientific information if the study has good internal validity?  A. Yeah. So in this particular example that I'm tweeting about is a little bit different because it's a randomized trial, not an observational study. And, you know, one

	Page 258		Page 260
1	randomized trials. But nonetheless, the results	1	studying this issue, and you found a relative
2	of this study found a p-value of .06, and I sort	2	risk of 1.1, a 10 percent increased risk, in
3	of disagreed with the interpretation of the	3	prostate cancer if a person had a vasectomy;
4	finding of that study.	4	right?
5	Q. You thought that the study should be	5	A. That was the relative risk for overall
6	given significance in that it had important	6	prostate cancer, that's correct.
7	implications, even though it was a .6?	7	Q. Okay. And your conclusion was, "Our
8	MR. COPLE: Objection. Asked and	8	data support the hypothesis that vasectomy is
9	answered.	9	associated with a modest increased" risk I'm
10	BY MR. MILLER:	10	sorry "a modest increased incidence of lethal
11	Q. Is that right? I'm just trying to	11	prostate cancer"; right?
12	A. Yeah, it was again, it wasn't an	12	A. So there we're referring to the result
13	observational study. It was a randomized	13	for lethal cancer, which is in the next sentence
14	controlled trial.	14	of the result, and there that's a relative risk
15	So many of the biases that we worry	15	of 1.19.
16	about that are inherent in observational studies	16	Q. That's fair. I appreciate that.
17	did not apply to this particular study, and so I	17	So you would describe a 19 percent
18	felt that the study provided some information	18	increased risk as a modest risk?
19	that could be interpreted, despite the fact that	19	A. So as again, I said it's very
20	the p-value wasn't statistically significant at	20	context-specific. And for lethal prostate
21	the .05 threshold.	21	cancer, which is a pretty rare event and one for
22	Q. Yes. Last question, and we'll walk	22	which we have very few established risk factors,
23	away from this one.	23	I think that our conclusion that that's a modest
24	This is the same Kenneth Rodman here	24	increased incidence is accurate, yes.
25	that wrote the textbook that we were talking	25	Q. Sure.
			`
	Page 259		Page 261
			rage 201
1	about earlier; right?	1	And you agree that non-Hodgkin's
1 2		1 2	
	about earlier; right?		And you agree that non-Hodgkin's
2	about earlier; right?  A. That's correct, he's yes, he wrote	2	And you agree that non-Hodgkin's lymphoma can be fatal?
2	about earlier; right?  A. That's correct, he's yes, he wrote that book.	2 3	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.
2 3 4	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would	2 3 4	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an
2 3 4 5	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?	2 3 4 5	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.
2 3 4 5 6	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?	2 3 4 5 6	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.
2 3 4 5 6 7	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.	2 3 4 5 6 7	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.  Easy to live with. Have a nice break.
2 3 4 5 6 7 8	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make	2 3 4 5 6 7 8	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.  Easy to live with. Have a nice break.  THE VIDEOGRAPHER: Going off the
2 3 4 5 6 7 8	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a	2 3 4 5 6 7 8	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.  Easy to live with. Have a nice break.  THE VIDEOGRAPHER: Going off the record. The time is 3:41.
2 3 4 5 6 7 8 9	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.	2 3 4 5 6 7 8 9	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.  Easy to live with. Have a nice break.  THE VIDEOGRAPHER: Going off the record. The time is 3:41.  (Whereupon, a recess was taken.)
2 3 4 5 6 7 8 9 10	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you	2 3 4 5 6 7 8 9 10	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.  Easy to live with. Have a nice break.  THE VIDEOGRAPHER: Going off the record. The time is 3:41.  (Whereupon, a recess was taken.)  THE VIDEOGRAPHER: Back on the record.
2 3 4 5 6 7 8 9 10 11	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson	2 3 4 5 6 7 8 9 10 11	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that.  MR. COPLE: We've been going for an hour and a half since the lunch break.  MR. MILLER: Another break, sure.  Easy to live with. Have a nice break.  THE VIDEOGRAPHER: Going off the record. The time is 3:41.  (Whereupon, a recess was taken.)  THE VIDEOGRAPHER: Back on the record. The time is 4:04.
2 3 4 5 6 7 8 9 10 11 12 13	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?	2 3 4 5 6 7 8 9 10 11 12	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 4:04. MR. MILLER: Who is on that
2 3 4 5 6 7 8 9 10 11 12 13 14	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.	2 3 4 5 6 7 8 9 10 11 12 13 14	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.  The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on	2 3 4 5 6 7 8 9 10 11 12 13 14	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure. Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate"	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure. Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."  A. Mm-hmm.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record. The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or something, what's going on there?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."  A. Mm-hmm.  (Whereupon, Rider Exhibit 23-35,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.  The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or something, what's going on there? Anybody else? Negative. All right.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."  A. Mm-hmm.  (Whereupon, Rider Exhibit 23-35, Wilson, et al study, Vasectomy and	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.  The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or something, what's going on there? Anybody else? Negative. All right. BY MR. MILLER:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."  A. Mm-hmm.  (Whereupon, Rider Exhibit 23-35, Wilson, et al study, Vasectomy and Risk of Aggressive Prostate Cancer: A	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.  The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or something, what's going on there? Anybody else? Negative. All right.  BY MR. MILLER: Q. I believe my last question you
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."  A. Mm-hmm.  (Whereupon, Rider Exhibit 23-35, Wilson, et al study, Vasectomy and Risk of Aggressive Prostate Cancer: A 24-Year Follow-Up Study, was marked	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.  The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or something, what's going on there? Anybody else? Negative. All right.  BY MR. MILLER: Q. I believe my last question you know, we're moving on, making progress. So we
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	about earlier; right?  A. That's correct, he's yes, he wrote that book.  Q. A 10 percent increased risk you would describe as a modest risk; right?  A. A 10 percent relative risk?  Q. Yes.  A. So, again, it's very difficult to make generalizations like that. It would depend a lot about the specific exposure and the outcome.  Q. Let's take a look at a study that you did with Kathryn Wilson, the same Kathryn Wilson that was on that IARC panel; right?  A. That's correct.  Q. All right. This is a study on "Vasectomy and Risk of Aggressive Prostate Cancer: A 24-year Follow-Up Study."  A. Mm-hmm.  (Whereupon, Rider Exhibit 23-35, Wilson, et al study, Vasectomy and Risk of Aggressive Prostate Cancer: A 24-Year Follow-Up Study, was marked for identification.)	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	And you agree that non-Hodgkin's lymphoma can be fatal?  A. Yes, I agree with that. MR. COPLE: We've been going for an hour and a half since the lunch break. MR. MILLER: Another break, sure.  Easy to live with. Have a nice break. THE VIDEOGRAPHER: Going off the record. The time is 3:41. (Whereupon, a recess was taken.) THE VIDEOGRAPHER: Back on the record.  The time is 4:04. MR. MILLER: Who is on that speakerphone? No one, apparently. Mr. Traverse, are you still with us? MR. TRAVERSE: Yeah, I'm here. MR. MILLER: You're hiding out or something, what's going on there? Anybody else? Negative. All right.  BY MR. MILLER: Q. I believe my last question you know, we're moving on, making progress. So we were talking about the vasectomy article, and

66 (Pages 258 to 261)

1	Page 262		Page 264
1	A. 23-35.	1	not sure.
2	Q. Thank you.	2	Q. Let's' take a look. We're on 23-26
3	All right. So I'll just ask a few	3	I'm sorry, 23-36.
4	more questions on it, and then we'll move on.	4	(Whereupon, Rider Exhibit 23-36,
5	And it's important, so I wanted to	5	Sigurdardottir, et al manuscript,
6	point out, correct me if I'm wrong, it's on	6	Sleep Disruption Among Older Men and
7	Page 3035, you found this modest association	7	Risk of Prostate Cancer, was marked
8	even though it was not statistically	8	for identification.)
9	significant; right?	9	BY MR. MILLER:
10	MR. COPLE: Objection. Misstates the	10	Q. Here's an article you wrote with
11	prior testimony.	11	Dr. Mucci and others, "Sleep Disruption Among
12	A. So the relative risk for lethal	12	Older Men and Risk of Prostate Cancer," 2013, I
13	disease was 1.19, and the confidence interval	13	believe.
14	was from 1-to-1.43, so it did just barely	14	Do you remember this one?
15	include the null value, yes.	15	A. I do, yes.
16	BY MR. MILLER:	16	Q. The first point I'd like to ask you
17	Q. But still holds important information?	17	about is, you considered a hazard ratio of 2.1
18	A. Again, we are not making any claims in	18	as a strong risk or strong association; would
19	this paper about evidence of causality, but we	19	that be true? And I'm looking at the Results
20	certainly thought that this information was	20	section in the abstract.
21	worth publishing and sharing with the scientific	21	A. I agree that our sort of main finding
22	community, yes.	22	was that men with sleep disruption, meaning
23	Q. On Page 3036, if you would, please,	23	those who had problems falling and staying
24	the first sentence in the typed portion there,	24	asleep, had a 1.7 a hazard ratio of 1.7 and
25	it says, "Three previous cohort studies have	25	2.1 when you consider sort of our version of a
	Page 263		Page 265
1	examined the association of vasectomy with	1	dose-response analysis.
2	advanced stage disease, with all finding	2	Q. And I'm reading down here, quote, in
3	increased but not statistically significant	3	the Results section, "When restricted to
4	relative risks ranging from 1.4 to 2.1." My	4	advanced prostate cancer, these associations
5	only point unquote.	5	became even stronger [hazard ratio 2.1]."
6	My only point for asking about that is	6	Do you see that?
7	they were all important enough to mention here,	7	A. I do.
8	even though they were not statistically	8	Q. So it would be fair to call a hazard
9	significant. Am I reading that right?	9	ratio of 2.1 a strong association?
10	A. I think here we were just trying to	10	A. That's not what it says here. It just
11	provide a summary of the previous research that	11	says that the hazard ratio of 2.1 and 3.2 were
12	had been done in the field, so regardless of	12	stronger than the ones where we're looking at
13	statistical significance, we felt like we needed	13	overall prostate cancer, but I don't think it's
14	to mention the prior studies that had looked at	14	making a general statement about what we feel is
15	this question.	15	strong or not strong.
16	Q. And just the last page, if we could,	16	Q. Let's take a look at Page 5. I'm
17	3038. You state, "Thus, these relative risks	17	sorry, I'm in the wrong spot. Page 2, I
18	translate to small increases in absolute risk.	18	apologize.
19	The decision to opt for a vasectomy remains a	19	In your Introduction, the first thing
20	highly personal one in which the potential risks	20	you point out is that "IARC designated shift
	and benefits must be considered." Right?	21	work involving circadian disruption as a
21	A. Mm-hmm.	22	probable human carcinogen in humans (Group 2A)."
21 22			
	Q. Okay. You found IARC important enough	23	Do you see that?
22		23 24	

67 (Pages 262 to 265)

	Page 266		Page 268
1	IARC's conclusions were important enough to be	1	memory. I started reviewing these papers now a
2	mentioned in your peer-reviewed studies?	2	year and a half ago. So I can't tell you for
3	A. I think we felt like the fact that	3	sure, but I can certainly tell you the ones that
4	IARC had looked at this question, provided some	4	I know that I read.
5	context for as to why we would want to	5	I have read both of the papers by
6	investigate sleep disruption with respect to	6	Acquavella, number 1 and 2.
7	prostate cancer.	7	I have read the number 5, the Alavanja
8	Q. And when you did your paper as to the	8	2014 study.
9	issues that you looked at, you came to a	9	I have definitely read at least one of
10	conclusion consistent with IARC's conclusion?	10	these draft manuscripts by Alavanja. There has
11	A. I wouldn't really say that, because I	11	been some confusion about that, but one of those
12	don't think we were looking at this in terms of	12	drafts I have access to.
13	it being a probable human carcinogen. I think	13	I read the American Cancer Society
14	we're evaluating the results more qualitatively,	14	summary of non-Hodgkin's lymphoma.
15	especially given some of the limitations in the	15	The Berkson study, number 17.
16	study that we're quite up front about	16	I have read several of these Blair
17	acknowledging.	17	studies, 21, 22, 23, 24.
18	Q. 23-37 is Exhibit B to your report, and	18	I read the Blettner study on
19	it is your list of materials considered. And	19	meta-analyses and pooled analyses.
20	what I'd ask you to do is to let me know which	20	I read the study by Bosch, and the
21	of these you developed yourself as compared to	21	Bradford-Hill study, although it's been some
22	getting from Hollingsworth firm, okay?	22	time.
23	MR. COPLE: Objection. Asked and	23	The Bravata study.
24	answered.	24	The Cancer Research UK web
25		25	publication.
	Page 267		Page 269
1	(Whereupon, Rider Exhibit 23-37,	1	The I believe I read all three of
2	Exhibit B to expert report, Materials	2	the Cantor studies.
3	Considered List, was marked for	3	The Chang and Delzell 2013
4	identification.)	4	meta-analysis.
5	A. Yeah, I really couldn't do that. I	5	The 2016 Chang and Delzell systematic
6	don't recall which ones I found and which ones	6	review and meta-analysis.
7	were given to me.	7	The Cocco paper.
8	BY MR. MILLER:	8	I believe I've read all three of those
9	Q. Okay. Can you recall any that you	9	De Roos papers that have been listed.
10	found?	10	The Dreiher paper.
11	MR. COPLE: Objection. Asked and	11	The Dubrow paper.
12	answered.	12	The Engel paper.
13	A. Again, it was my literature search	13	I read at least one of these EPA
14	was a very long time ago, and I couldn't say	14	reports to try and determine the dates that
15	with certainty which of these I found.	15	glyphosate was available, but I don't recall
16	BY MR. MILLER:	16	which one.
17	Q. Can you tell me, we've talked about	17	The Eriksson paper.
18	it, but which of those you've actually read on	18	The expert report of Drs. Neugut and
19	that list?	19	Ritz, as I mentioned.
20	A. So you're asking me to go through the	20	The Fasal study.
21	entire list and tell you all the ones that I've	21	These papers by Gelman about
22	read?	22	statistical significance.
1. /.		23	The Greenland paper.
	() I know that sounds cumbersome but		
23	Q. I know that sounds cumbersome, but it's pretty important.		
	<ul><li>Q. I know that sounds cumbersome, but</li><li>it's pretty important.</li><li>A. Okay. Again, I'm going based on</li></ul>	24 25	The Hardell and Eriksson case control study.

68 (Pages 266 to 269)

# Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 70 of 114

# Confidential - Subject to Protective Order

	Page 270		Page 272
1	The Hardell, et al study. I'm sorry,	1	questions. Thank you for your time.
2	number 90.	2	A. Thank you.
3	The Hernan paper.	3	MR. COPLE: Are you passing the
4	The Hohenadel paper.	4	witness?
5	The Hoppin paper.	5	MR. MILLER: I would imagine.
6	The IARC Monograph 112.	6	MR. COPLE: All right. Let's go off
7	The Lash paper.	7	the record. Take a short break.
8	The Lee paper.	8	THE VIDEOGRAPHER: Going off the
9	The McDuffie paper.	9	record. The time is 4:25.
10	The National Cancer Institute facts on	10	(Whereupon, a recess was taken.)
11	non-Hodgkin's lymphoma.	11	THE VIDEOGRAPHER: Back on the record.
12	The Nordstrom paper.	12	The time is 4:42.
13	I believe 129 refers to a presentation	13	EXAMINATION
14	at a conference, and I have reviewed. I believe	14	BY MR. COPLE:
15	that was the version that I reviewed. There	15	Q. Good afternoon, Dr. Rider.
16	were a few.	16	A. Hello.
17	The Orsi paper.	17	Q. I'm not going to prolong this, but
18	The Pahwa publications.	18	we've got a couple of things that we need to ask
19	Again, I can't recall which ones I	19	you to clear up what we hope is not confusion,
20	have and have not reviewed, but I have reviewed	20	but just to clarify.
21	several presentations and a draft manuscript	21	A. Okay.
22	from the North American Pooling Project.	22	Q. You were asked many questions today by
23	Just a moment ago we reviewed this	23	plaintiffs' counsel, Mr. Miller, and in many
24	Pearce study.	24	instances Mr. Miller did not give you the
25	I have read the Charlie Poole paper.	25	opportunity to look at your expert report, but
	Page 271		Page 273
1	The Rinsky paper.	1	he did hand it to you. It has not been marked
2	The Samuels paper.	2	as an exhibit, so right now let's mark that as
3	The Schinasi and Leon paper.	3	an exhibit to the deposition.
4	The Schumacher paper.	4	Which one are we up to? 38?
5	The SEER statistics for non-Hodgkin's	5	(Whereupon, Rider Exhibit 23-38,
6	lymphoma.	6	Expert Report of Jennifer R. Rider,
7	The Sorahan paper.	7	ScD, 7/31/17, was marked for
8	My own paper on toll-like receptor	8	identification.)
9	signaling.	9	MR. MILLER: Object to the form of the
10	The I'm not sure how you pronounce	10	question. Object to the statement.
11	his name, but Szklo and Nieto textbook.	11	MR. COPLE: No question, it was just a
12	The list of participants at the IARC	12	statement.
		1 1 2	MD MILLED. Object to the exetension
13	Monograph 112 meeting.	13	MR. MILLER: Object to the statement.
14	The Walker paper on meta-analysis.	14	BY MR. COPLE:
14 15	The Walker paper on meta-analysis. The World Health Organization	14 15	BY MR. COPLE:  Q. And is that your expert report in this
14 15 16	The Walker paper on meta-analysis.  The World Health Organization definition of epidemiology.	14 15 16	BY MR. COPLE:  Q. And is that your expert report in this case?
14 15 16 17	The Walker paper on meta-analysis.  The World Health Organization definition of epidemiology.  And those are all the ones that I	14 15 16 17	BY MR. COPLE:  Q. And is that your expert report in this case?  A. Yes, it is.
14 15 16 17 18	The Walker paper on meta-analysis.  The World Health Organization definition of epidemiology.  And those are all the ones that I immediately recognize.	14 15 16 17 18	BY MR. COPLE: Q. And is that your expert report in this case? A. Yes, it is. Q. It contains the opinions that you
14 15 16 17	The Walker paper on meta-analysis.  The World Health Organization definition of epidemiology.  And those are all the ones that I immediately recognize.  Q. Thank you.	14 15 16 17 18 19	BY MR. COPLE: Q. And is that your expert report in this case? A. Yes, it is. Q. It contains the opinions that you arrived at?
14 15 16 17 18	The Walker paper on meta-analysis. The World Health Organization definition of epidemiology. And those are all the ones that I immediately recognize. Q. Thank you. Did you ask to review anything that	14 15 16 17 18 19 20	BY MR. COPLE: Q. And is that your expert report in this case? A. Yes, it is. Q. It contains the opinions that you
14 15 16 17 18 19 20 21	The Walker paper on meta-analysis.  The World Health Organization definition of epidemiology.  And those are all the ones that I immediately recognize.  Q. Thank you.  Did you ask to review anything that you were not provided?	14 15 16 17 18 19	BY MR. COPLE: Q. And is that your expert report in this case? A. Yes, it is. Q. It contains the opinions that you arrived at? A. Yes, it does. Q. And have you had occasion to change
14 15 16 17 18 19 20 21	The Walker paper on meta-analysis. The World Health Organization definition of epidemiology. And those are all the ones that I immediately recognize. Q. Thank you. Did you ask to review anything that	14 15 16 17 18 19 20 21 22	BY MR. COPLE: Q. And is that your expert report in this case? A. Yes, it is. Q. It contains the opinions that you arrived at? A. Yes, it does.
14 15 16 17 18 19 20 21	The Walker paper on meta-analysis.  The World Health Organization definition of epidemiology.  And those are all the ones that I immediately recognize.  Q. Thank you.  Did you ask to review anything that you were not provided?	14 15 16 17 18 19 20 21	BY MR. COPLE:  Q. And is that your expert report in this case?  A. Yes, it is. Q. It contains the opinions that you arrived at?  A. Yes, it does. Q. And have you had occasion to change any of those opinions in the course of questioning today?
14 15 16 17 18 19 20 21	The Walker paper on meta-analysis. The World Health Organization definition of epidemiology. And those are all the ones that I immediately recognize. Q. Thank you. Did you ask to review anything that you were not provided? A. Well, there are materials that I both	14 15 16 17 18 19 20 21 22	BY MR. COPLE:  Q. And is that your expert report in this case?  A. Yes, it is. Q. It contains the opinions that you arrived at?  A. Yes, it does. Q. And have you had occasion to change any of those opinions in the course of

69 (Pages 270 to 273)

	Page 274		Page 276
1	reflected in your report to a reasonable degree	1	question.
2	of scientific certainty?	2	A. That is correct. The list of
3	A. Yes, I do.	3	materials is very long, and I received many of
4	Q. And is that the same about any	4	those materials now over a year ago.
5	opinions you had today about the relationship	5	BY MR. COPLE:
6	between glyphosate exposure and non-Hodgkin's	6	Q. And you went through that list at the
7	lymphoma?	7	request of Mr. Miller, and you identified
8	MR. MILLER: Object to the form of the	8	materials that you specifically recall
9	question.	9	reviewing; is that correct?
10	A. That is correct.	10	A. That is correct.
11	BY MR. COPLE:	11	Q. Does that mean from your testimony
12	Q. There was also a moment today when you	12	today that anything you did not so identify you
13	were being asked in reference to unpublished	13	did not review?
14	work whether it's necessary to reach out to the	14	MR. MILLER: Object to the form of the
15	authors who are the proponents of the drafters	15	question.
16	of that work, and you mentioned that there might	16	A. No, it does not.
17	be a courtesy involved in contacting those	17	BY MR. COPLE:
18	authors.	18	Q. You just don't remember it, sitting
19	Do you remember that?	19	here today?
20	A. I do, so I was shown a document where	20	MR. MILLER: If we can, and I
21	those authors had said that unpublished data	21	understand we all want to go home, but you need
22	should only be cited with permission of the	22	to get my objections in before you answer,
23	authors.	23	please. Thank you.
24	Q. And that was the courtesy that you	24	THE WITNESS: Sorry.
25	were talking about?	25	MR. MILLER: Thank you very much.
	Page 275		Page 277
1	Page 275  A. Yeah. I was saying that it would be a	1	Page 277  MR. COPLE: I don't know if we got my
1 2		1 2	
	A. Yeah. I was saying that it would be a		MR. COPLE: I don't know if we got my
2	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before	2	MR. COPLE: I don't know if we got my question and answer. Why don't you just read
2	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so	2 3	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.
2 3 4	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a	2 3 4	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the
2 3 4 5	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be	2 3 4 5	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)
2 3 4 5 6	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.	2 3 4 5 6	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all
2 3 4 5 6 7 8	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to	2 3 4 5 6 7	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:
2 3 4 5 6 7 8	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case,	2 3 4 5 6 7 8	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental
2 3 4 5 6 7 8	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?	2 3 4 5 6 7 8 9 10	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard
2 3 4 5 6 7 8 9	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to	2 3 4 5 6 7 8 9 10 11	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?
2 3 4 5 6 7 8 9 10 11 12	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was	2 3 4 5 6 7 8 9 10 11 12	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.
2 3 4 5 6 7 8 9 10 11 12 13 14	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask	2 3 4 5 6 7 8 9 10 11 12 13 14	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39
2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.	2 3 4 5 6 7 8 9 10 11 12 13 14	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition
2 3 4 5 6 7 8 9 10 11 12 13 14	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go	2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39, Supplemental Materials Considered
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39, Supplemental Materials Considered List, was marked for identification.)
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.  A. Mm-hmm.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39,  Supplemental Materials Considered  List, was marked for identification.)  BY MR. COPLE:
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.  A. Mm-hmm.  Q. You had initially testified, as I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39, Supplemental Materials Considered List, was marked for identification.)
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.  A. Mm-hmm.  Q. You had initially testified, as I recall, that you had reviewed it some time ago,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39,  Supplemental Materials Considered  List, was marked for identification.)  BY MR. COPLE:  Q a document, and ask you to identify it for us.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.  A. Mm-hmm.  Q. You had initially testified, as I recall, that you had reviewed it some time ago, and over a period of time, you could not	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39,  Supplemental Materials Considered  List, was marked for identification.)  BY MR. COPLE:  Q a document, and ask you to identify it for us.  A. This is a Supplemental Materials
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.  A. Mm-hmm.  Q. You had initially testified, as I recall, that you had reviewed it some time ago, and over a period of time, you could not specifically identify all the materials that you	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39,  Supplemental Materials Considered  List, was marked for identification.)  BY MR. COPLE:  Q a document, and ask you to identify it for us.  A. This is a Supplemental Materials  Considered List.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. Yeah. I was saying that it would be a courtesy to ask the author's permission before you cited their work in a public forum, so either in a published manuscript or at, say, a conference where those results were going to be presented.  Q. What about the Exhibit 38 which you've identified as your expert report in this case, is there any reason that you would have had to reach out to any of the co-authors of what's been called the 2013 AHS draft manuscript?  A. No. My expert report is not going to be published, and so I did not think it was necessary to reach out for the authors and ask for permission to cite their data.  Q. Okay. You also were asked to go through the list of materials considered, MCL, materials considered list.  A. Mm-hmm.  Q. You had initially testified, as I recall, that you had reviewed it some time ago, and over a period of time, you could not	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. COPLE: I don't know if we got my question and answer. Why don't you just read that last one back.  (Whereupon, the reporter read back the pending question.)  A. So that is correct, I don't recall all of the materials that I might have read, sitting here today.  BY MR. COPLE:  Q. And, in fact, there was a supplemental list of materials that you considered in regard to your expert opinion; is that correct?  A. That is correct.  MR. COPLE: Let's mark as Exhibit 39 for this deposition  (Whereupon, Rider Exhibit 23-39,  Supplemental Materials Considered  List, was marked for identification.)  BY MR. COPLE:  Q a document, and ask you to identify it for us.  A. This is a Supplemental Materials

	D 050		D 200
	Page 278		Page 280
1	for purposes of preparing and evaluating and	1	there are three bullets towards the bottom half
2	reaching your conclusions, your expert	2	of the first page. It all follows the Roman
3	conclusions in this case?	3	Numeral Guyton.
4	MR. MILLER: Object to the form of the	4	Now, was this a study that was done of
5	question.	5	any sort by this doctoral student?
6	A. Yes, it is.	6	A. No. From what I can gather in my
7	BY MR. COPLE:	7	quick read of this, this is just a summary of
8	Q. Are there additional materials on that	8	the Lancet oncology findings, report.
9	list?	9	Q. It was not a review by the doctoral
10	A. There are materials on this list, yes,	10	student; is that right?
11	that were not included on the first materials	11	MR. MILLER: Object to the form of the
12	considered list, that's correct.	12	question.
13	Q. Now, since the date that that	13	A. It just says here "A summary of the
14	supplemental list was reviewed, have you	14	final evaluation was published in Lancet
15	reviewed any additional materials, for example	15	Oncology," and then this doctoral student
16	depositions, since that list?	16	provides a few bullet points.
17	A. No. Not since this list, no.	17	BY MR. COPLE:
18	Q. You testified earlier you reviewed the	18	Q. So it would not even constitute a
19	depositions of Dr. Neugut and Dr. Ritz?	19	complete review, in your view?
20	A. Yeah. They're actually included on	20	MR. MILLER: Object to the form of the
21	this oh, I'm sorry, these are the expert	21	question.
22	reports. I apologize.	22	A. Yeah, I would classify it as a
23	I've also reviewed their depositions,	23	bulleted summary of the report.
24	which are not listed here.	24	BY MR. COPLE:
25	Q. Those occurred after that supplemental	25	Q. Okay. Do you have at hand amongst
	Page 279		Page 281
1	list?	1	those exhibits De Roos 2005?
2	A. Exactly. Exactly.	2	A. Here we are.
3	Q. Before I overlook it, there was an	3	Q. Okay. You were asked a number of
		1 2	Q. Okay. Tou were asked a number of
4	exhibit, and I don't recall the number, frankly,	4	questions about this particular study
4 5	exhibit, and I don't recall the number, frankly, if you can put your hand on it right away we can		
		4	questions about this particular study
5	if you can put your hand on it right away we can	4 5	questions about this particular study publication; correct?
5 6	if you can put your hand on it right away we can talk about it, if not I can refresh your memory	4 5 6	questions about this particular study publication; correct?  A. That is correct.
5 6 7	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel	4 5 6 7	questions about this particular study publication; correct?  A. That is correct.  Q. Now, this was as I recall your
5 6 7 8	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website	4 5 6 7 8	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is
5 6 7 8 9	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.	4 5 6 7 8 9	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos
5 6 7 8 9	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards	4 5 6 7 8 9	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?
5 6 7 8 9 10	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.	4 5 6 7 8 9 10	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation,
5 6 7 8 9 10 11 12	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup";	4 5 6 7 8 9 10 11	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some
5 6 7 8 9 10 11 12 13	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?	4 5 6 7 8 9 10 11 12 13	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort.
5 6 7 8 9 10 11 12 13	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.	4 5 6 7 8 9 10 11 12 13	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of
5 6 7 8 9 10 11 12 13 14	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?	4 5 6 7 8 9 10 11 12 13 14 15	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct? A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of different questions about personal protective
5 6 7 8 9 10 11 12 13 14 15	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here,	4 5 6 7 8 9 10 11 12 13 14 15	questions about this particular study publication; correct?  A. That is correct.  Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort.  Q. And you were asked a number of different questions about personal protective equipment and various other factors for
5 6 7 8 9 10 11 12 13 14 15 16 17	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the	4 5 6 7 8 9 10 11 12 13 14 15 16 17	questions about this particular study publication; correct?  A. That is correct.  Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort.  Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.
5 6 7 8 9 10 11 12 13 14 15 16 17	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the pronunciation, Yu-Han Chu, a third year doctoral	4 5 6 7 8 9 10 11 12 13 14 15 16 17	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.  Do you remember that?
5 6 7 8 9 10 11 12 13 14 15 16 17 18	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the pronunciation, Yu-Han Chu, a third year doctoral student who has been researching dietary factors	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.  Do you remember that? A. I do.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the pronunciation, Yu-Han Chu, a third year doctoral student who has been researching dietary factors in relation to semen quality and other	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.  Do you remember that? A. I do. Q. Now, in this particular study, at
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the pronunciation, Yu-Han Chu, a third year doctoral student who has been researching dietary factors in relation to semen quality and other reproductive outcomes.	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.  Do you remember that? A. I do. Q. Now, in this particular study, at baseline in 2005, did the study co-authors take
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the pronunciation, Yu-Han Chu, a third year doctoral student who has been researching dietary factors in relation to semen quality and other reproductive outcomes.  Q. And on the first page of that	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	questions about this particular study publication; correct?  A. That is correct. Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort. Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.  Do you remember that? A. I do. Q. Now, in this particular study, at baseline in 2005, did the study co-authors take into account the use of personal protective
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	if you can put your hand on it right away we can talk about it, if not I can refresh your memory about it. It was one of the pieces that counsel asked you about that was posted on the website for the Harvard School of Public Health.  A. I think that would have been towards the bottom of the pile. Yes, here it is.  Q. "Nutrition Source. Research Roundup"; is that correct?  A. That is correct.  Q. And who is this written by?  A. According to the last paragraph here, it was written by I'm sorry about the pronunciation, Yu-Han Chu, a third year doctoral student who has been researching dietary factors in relation to semen quality and other reproductive outcomes.  Q. And on the first page of that exhibit can you tell us what exhibit that is?	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	questions about this particular study publication; correct?  A. That is correct.  Q. Now, this was as I recall your testimony, and in your expert report, this is the baseline study publication by Dr. De Roos and his co-authors; correct?  A. This is the prospective evaluation, yes, that looked at glyphosate and some glyphosate exposure at baseline in the cohort.  Q. And you were asked a number of different questions about personal protective equipment and various other factors for pesticide applicators.  Do you remember that?  A. I do.  Q. Now, in this particular study, at baseline in 2005, did the study co-authors take into account the use of personal protective equipment in terms of the weighted intensity of

	Page 282		Page 284
1	in terms of cumulative exposure days, and then	1	A. I do, yes. That's correct.
2	in terms of intensity weighted exposure days.	2	Q. Now, that imputation approach, as I
3	And the intensity weighted exposure days does	3	recall, you said is a well established
4	consider personal protective equipment in their	4	methodology in epidemiology. Is that what you
5	determination of intensity.	5	said?
6	Q. Now, if you go to Page 50 on the	6	A. Yes.
7	De Roos document, and you go straight up the	7	MR. MILLER: Object to the form of the
8	middle of the page, you'll see a subheading	8	question.
9	"Data Analysis."	9	BY MR. COPLE:
10	Do you see that?	10	Q. Now, the imputation methodology that
11	A. I do.	11	you were asked about and you described, has that
12	Q. And if you go right above that,	12	methodology been validated anywhere?
13	there's a sentence starting with "Intensity	13	A. Yes, it's been used in a number of
14	levels."	14	papers within published papers within the
15	Do you see that?	15	Agricultural Health Study. But there's one
16	A. I do.	16	specific published paper, that the purpose of
17	Q. Would you read that sentence for the	17	that paper was to describe in more detail the
18	record?	18	imputation methods that were used, and also to
19	A. Sure. "Intensity levels were	19	validate the method by using what they call a
20	estimated using questionnaire data from	20	holdout sample of respondents who they were then
21	enrollment and measurement data from the	21	able to test their models in.
22	published pesticide exposure literature as	22	Q. What is the one particular paper
23	follows. Intensity level equals mixing status	23	you're talking about?
24	plus application method plus equipment repair	24	A. That would be Heltshe, et al.
25	status, all of those things combined, times	25	Q. Did you take Heltshe, et al into
	Page 283		- 005
	1496 203		Page 285
1	personal protective equipment use."	1	consideration in coming up with your expert
1 2		1 2	
	personal protective equipment use."		consideration in coming up with your expert
2	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure	2	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your
2	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors	2 3	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list?
2 3 4	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed,	2 3 4 5 6	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list?  A. Yes. It's listed as number 93.
2 3 4 5	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors	2 3 4 5	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list?  A. Yes. It's listed as number 93. Q. Okay. Also, there was a question
2 3 4 5 6	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.	2 3 4 5 6	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list?  A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and
2 3 4 5 6 7 8	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study	2 3 4 5 6 7 8	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I
2 3 4 5 6 7 8 9	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took	2 3 4 5 6 7 8 9	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list?  A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being
2 3 4 5 6 7 8 9 10	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?	2 3 4 5 6 7 8 9 10	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?
2 3 4 5 6 7 8 9 10 11	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.	2 3 4 5 6 7 8 9 10 11 12	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes.
2 3 4 5 6 7 8 9 10 11 12	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions	2 3 4 5 6 7 8 9 10 11 12 13	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit?
2 3 4 5 6 7 8 9 10 11 12 13 14	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I	2 3 4 5 6 7 8 9 10 11 12 13 14	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you?
2 3 4 5 6 7 8 9 10 11 12 13 14 15	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents	2 3 4 5 6 7 8 9 10 11 12 13 14	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.  Q. And when you were testifying about	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is. Q. It has been. What's the number,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.  Q. And when you were testifying about that, you had mentioned that for those, let's	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is. Q. It has been. What's the number, please?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.  Q. And when you were testifying about that, you had mentioned that for those, let's say, 33 percent or so of the respondents that	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is. Q. It has been. What's the number, please? A. This is 23-28.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.  Q. And when you were testifying about that, you had mentioned that for those, let's say, 33 percent or so of the respondents that did not respond in one way or another, that an	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is. Q. It has been. What's the number, please? A. This is 23-28. Q. And this is the study in the published
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.  Q. And when you were testifying about that, you had mentioned that for those, let's say, 33 percent or so of the respondents that did not respond in one way or another, that an imputation approach was used.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is. Q. It has been. What's the number, please? A. This is 23-28. Q. And this is the study in the published study manuscript that you had indicated did not
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	personal protective equipment use."  Q. What does that mean, Doctor?  A. That means that when they were determining how intense a person's exposure level was, they considered a variety of factors about how specifically that person was exposed, including whether or not that person used personal protective equipment.  Q. So at baseline, the De Roos study report published here with his co-authors took into account personal protective equipment?  A. That is correct.  Q. Now, there were a number of questions that were asked by counsel having to do, as I recall, with the number of follow-up respondents that there were to fill in the blanks since the original baseline collection on the AHS study.  Do you remember being asked that?  A. I do.  Q. And when you were testifying about that, you had mentioned that for those, let's say, 33 percent or so of the respondents that did not respond in one way or another, that an	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	consideration in coming up with your expert opinions?  A. Yes, I did. Q. And is that reflected on your supplemental materials considered list? A. Yes. It's listed as number 93. Q. Okay. Also, there was a question about Alavanja and a follow-up paper that he and his colleagues had prepared in 2014, which, as I recall, was published. Do you remember being asked about that?  A. I do, yes. Q. Has that been marked as an exhibit? Do you have that with you? A. I can't recall whether that one is here. Q. Well, let me ask you, and maybe we don't even need to find it. A. It is. Q. It has been. What's the number, please? A. This is 23-28. Q. And this is the study in the published

	Page 286		Page 288
1	the original De Roos baseline study; correct?	1	draft? That's the one that was marked earlier
2	A. That's correct. It's one of the	2	in the deposition.
3	chemicals that was not included in this	3	A. So there are a number of dates here
4	subsequent published follow-up study.	4	that are sort of crossed out and track changes.
5	Q. And as I recall, you also said you	5	Q. What's the date that was not crossed
6	don't know why the authors chose to exclude it;	6	out?
7	right?	7	A. That would be September 19th, 2017.
8	A. That is correct.	8	Q. And you had not previously seen a
9	Q. Okay. Now, with respect to Alavanja,	9	document purporting to be the draft manuscript
10	did Alavanja and colleagues, with respect to	10	of that date; is that correct?
11	that 2014 published study, use the same	11	A. That is correct.
12	imputation design that you had just referenced	12	Q. And what about the earlier dates that
13	from Heltshe?	13	are strucken out in some fashion, had you seen
14	A. That is correct. It's the same method	14	those versions?
15	that is referenced in the draft 2013 manuscript,	15	A. No, I do not recognize any of those
16	and the same method that's described in the	16	dates to be the date of the version that I've
17	Heltshe paper.	17	seen.
18	Q. Let me mark as Exhibit 40 a document,	18	Q. And you have not been able to have the
19	and have you identify it for us.	19	opportunity to go through page by what were
20	(Whereupon, Rider Exhibit 23-40,	20	the dates of the ones that you had not seen?
21	Draft, Lymphoma risk and pesticide use	21	A. Sorry, it's a bit difficult to read.
22	in the Agricultural Health Study,	22	So 9/19/2017 was crossed out once, and
23	12/5/16, was marked for	23	then there's 10/24/2016, then 3/21/2013, and
24	identification.)	24	then 3-18 but I can't see oh, 2013. That
25	A. This is the draft manuscript that	25	was the last date.
	Page 287		D 200
	rage 207		Page 289
1	includes the updated results from the	1	Q. Now, you have not had an opportunity,
2	includes the updated results from the Agricultural Health Study that I used and cited	2	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to
2	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.	2	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there
2 3 4	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE:	2 3 4	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or
2 3 4 5	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a	2 3 4 5	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that
2 3 4 5 6	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says	2 3 4 5 6	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?
2 3 4 5	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.  BY MR. COPLE:  Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013	2 3 4 5 6 7	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that
2 3 4 5 6	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says	2 3 4 5 6 7 8	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct.  Q. Okay. With respect to the exhibit
2 3 4 5 6 7 8 9	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.  BY MR. COPLE:  Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other?	2 3 4 5 6 7 8	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct.
2 3 4 5 6 7 8 9	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is	2 3 4 5 6 7 8 9	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct.  Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.
2 3 4 5 6 7 8 9 10	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.  BY MR. COPLE:  Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other?  A. Yeah, it became apparent that there is at least two differences in the in these	2 3 4 5 6 7 8 9 10	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct.  Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct.
2 3 4 5 6 7 8 9 10 11	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them.	2 3 4 5 6 7 8 9 10 11 12	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript
2 3 4 5 6 7 8 9 10 11 12 13	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.  BY MR. COPLE:  Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other?  A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them.  Q. And what was the two differences	2 3 4 5 6 7 8 9 10 11 12	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?
2 3 4 5 6 7 8 9 10 11 12 13 14	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.  BY MR. COPLE:  Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other?  A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them.  Q. And what was the two differences quickly in your quick look?	2 3 4 5 6 7 8 9 10 11 12 13 14	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct.
2 3 4 5 6 7 8 9 10 11 12 13 14	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report.  BY MR. COPLE:  Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other?  A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them.  Q. And what was the two differences quickly in your quick look?  A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form. A. Yeah, I stated earlier that if I was
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th, 2016. So that's the first difference.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form. A. Yeah, I stated earlier that if I was to receive this manuscript, perhaps without the
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th, 2016. So that's the first difference. And then, of course, we were alerted	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form.  A. Yeah, I stated earlier that if I was to receive this manuscript, perhaps without the comments in the margins, but I'd just edit
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th, 2016. So that's the first difference. And then, of course, we were alerted to the differences between the manuscripts	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form.  A. Yeah, I stated earlier that if I was to receive this manuscript, perhaps without the comments in the margins, but I'd just edit visually cleaned-up version of this manuscript,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th, 2016. So that's the first difference.  And then, of course, we were alerted to the differences between the manuscripts because there was a footnote on a table that was	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form.  A. Yeah, I stated earlier that if I was to receive this manuscript, perhaps without the comments in the margins, but I'd just editvisually cleaned-up version of this manuscript, if I was to receive it for peer review, I might
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th, 2016. So that's the first difference. And then, of course, we were alerted to the differences between the manuscripts because there was a footnote on a table that was not in the version that I was looking at.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form.  A. Yeah, I stated earlier that if I was to receive this manuscript, perhaps without the comments in the margins, but I'd just edit visually cleaned-up version of this manuscript, if I was to receive it for peer review, I might have some minor comments, but I would determine
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	includes the updated results from the Agricultural Health Study that I used and cited in my own expert report. BY MR. COPLE: Q. You earlier today were shown a document marked as an exhibit which also says that it's a draft manuscript from the AHS 2013 follow-up study. Are these documents different from each other? A. Yeah, it became apparent that there is at least two differences in the in these drafts, just from a quick look at them. Q. And what was the two differences quickly in your quick look? A. Well, the one that I was shown earlier, Exhibit 29, has a number of dates on the bottom of the title page, whereas the one that I had seen the only one that I had seen prior to today has this date of December 5th, 2016. So that's the first difference.  And then, of course, we were alerted to the differences between the manuscripts because there was a footnote on a table that was	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Now, you have not had an opportunity, since you've been in this deposition all day, to carefully go through page by page whether there are differences in writing or data or interpretation or comments or content; is that correct?  A. That is correct. Q. Okay. With respect to the exhibit that we just marked, which is Exhibit 40, as I recall.  A. Correct. Q. Exhibit 40 is the draft manuscript version that you were provided; correct?  A. That is correct. Q. And in that version, I believe you testified that it's ready to be published, as far as you're concerned; is that right?  MR. MILLER: Objection. Form.  A. Yeah, I stated earlier that if I was to receive this manuscript, perhaps without the comments in the margins, but I'd just editvisually cleaned-up version of this manuscript, if I was to receive it for peer review, I might

	Daga 200		Daga 202
	Page 290		Page 292
1	BY MR. COPLE:	1	in that Monograph 112 considered this draft
2	Q. Is a study design or an epidemiology	2	manuscript?
3	study not scientifically valid because it hasn't	3	A. It was not one of the materials that
4	been published?	4	they considered in their review, no.
5	A. No, I don't think that whether or	5	Q. Based on your review of the monograph
6	not you know, there are a number of reasons	6	112, does that mean that you considered that
7	for why something may not have been published,	7	they did not see this or did not review this as
8	and so I don't think that having an unpublished	8	part of their materials?
9	draft says anything about the quality of the	9	A. That is correct.
10 11	publication or its suitability for publication.	10	Q. Okay. So your testimony, to a
	Q. And you reviewed this publication,	11	reasonable degree of scientific certainty, is,
12 13	correct, this draft of this manuscript; correct?	12	based upon your literature review and
	A. That is correct, I reviewed all of the	13	independent evaluation, is that you do not see
14	results, all of the tables. I and I reviewed	14	scientifically reliable evidence showing that
15	the methods, just as I would do if I was peer	15	glyphosate exposure has a causal association
16	reviewing a manuscript.	16	with non-Hodgkin's lymphoma; is that right?
17	Q. So, in effect, the manuscript has been	17	MR. MILLER: Object to the form of the
18 19	peer reviewed by you?  A. That is correct.	18	question.
20		19	A. That is correct.
	Q. Okay. Now, you also said earlier that	20	MR. COPLE: I have nothing further.
21 22	based on all the evidence that you had seen and	21	MR. MILLER: I have no further
23	reviewed in doing your literature search,	22	follow-up. I think we are done now.
24	considered materials that were provided in	23	THE WITNESS: Thank you.
25	coming up with your expert opinions	24	THE VIDEOGRAPHER: This concludes the
45	independently in this case, that the draft	25	September 21, 2017 deposition of Dr. Jennifer
	Page 291		Page 293
1	manuscript that you had worked with and had been	1	Rider. Going off the record. The time is 5:03.
2	provided was the strongest evidence to date.	2	(Whereupon, the deposition was
3	Do you remember that?	3	concluded.)
4	MR. MILLER: Object to form.	4	
5	BY MR. COPLE:	5	
6	Q. Do you remember saying that?	6	
7	A. I have to admit I don't recall saying	7	
8	exactly that, but I certainly said that I	8	
9	thought that it would be a shame if this	9	
10	publication wasn't published and that people	10	
11	weren't aware of this these updated results,	11	
12	because it provides such strong evidence on the	12	
13	evidence of glyphosate and NHL.	13	
14	Q. What does it well, what does the	14	
15	evidence tell you based on that draft	15	
16	manuscript?	16	
17	A. It certainly confirms the previous	17	
18	findings in the AHS that there are is no	18	
19	evidence of an association, either ever/never	19	
20	use or, more importantly, in dose-response	20	
21	analyses, between glyphosate and NHL. And in	21	
22	light of especially of the IARC decision, I	22	
23	think it's important for the scientific	23	
24	community to have access to these results.	24	
25	Q. Are you aware of whether IARC itself	25	
1		I	

74 (Pages 290 to 293)

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 76 of 114

#### Confidential - Subject to Protective Order

	Page 294		Page 296
1	COMMONWEALTH OF MASSACHUSETTS )	1	
2	SUFFOLK, SS. )	-	ERRATA
3	I, MAUREEN O'CONNOR POLLARD, RMR, CLR,	2	
4	and Notary Public in and for the Commonwealth of	3	PAGE LINE CHANGE
5	Massachusetts, do certify that on the 21st day	4	
6	of September, 2017, at 9:01 o'clock, the person	5	REASON:
7	above-named was duly sworn to testify to the	6	
8	truth of their knowledge, and examined, and such	7	REASON:
9	examination reduced to typewriting under my	8	
10	direction, and is a true record of the testimony	9	REASON:
11	given by the witness. I further certify that I	10	
12	am neither attorney, related or employed by any	11	REASON:
13	of the parties to this action, and that I am not	12	
14	a relative or employee of any attorney employed	13	REASON:
15	by the parties hereto, or financially interested	14	
16	in the action.	15	REASON:
17	In witness whereof, I have hereunto	16 17	DE A COM.
18	set my hand this 21st day of September, 2017.	18	REASON:
19		19	DEASON:
20		20	REASON:
21	MAUREEN O'CONNOR POLLARD, NOTARY PUBLIC	21	REASON:
22	Realtime Systems Administrator	22	
23	CSR #149108	23	
24		24	
25		25	
	Page 295		Page 297
1	INSTRUCTIONS TO WITNESS	1	
2		2	ACKNOWLEDGMENT OF DEPONENT
3	Please read your deposition over	3 4	I,, do
4	carefully and make any necessary corrections.	*	Hereby certify that I have read the foregoing
5	You should state the reason in the appropriate	5	pages, and that the same is a correct
6	space on the errata sheet for any corrections		transcription of the answers given by me to the
7	that are made.	6	questions therein propounded, except for the corrections or changes in form or substance, if
8	After doing so, please sign the	7	any, noted in the attached Errata Sheet.
9	errata sheet and date it. It will be attached	8	
10	to your deposition.	9	IEMNHEED D. DIDED Co.D. DATE
11	It is imperative that you return	10	JENNIFER R. RIDER, ScD DATE
12	the original errata sheet to the deposing	11	
13	attorney within thirty (30) days of receipt of	12	
14	the deposition transcript by you. If you fail	13 14	
15	to do so, the deposition transcript may be	15	
16	deemed to be accurate and may be used in court.	16	Subscribed and sworn
17		1	To before me this
18		17 18	day of, 20 My commission expires:
19		19	1.23 Commission expires.
20			
21		20	Notary Public
22		21 22	
23		23	
24		0.4	
		24	
25		25	

75 (Pages 294 to 297)

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 77 of 114

Confidential - Subject to Protective Order

Page	ge 298
1 LAWYER'S NOTES	
2 PAGE LINE	
3	
5	
6	
7	
8 9	
10	
11	
12 13	<del></del>
14	
15	
16 17	
18	
19	
20	
22	
23	
24	
25	

76 (Page 298)

		 	 	l
A	accurate 60:10	74:13 86:13 87:16	ages 17:22 18:19	286:22 287:2
<b>A.9</b> 244:23	104:23 126:7	104:5,8,8 106:21	Aggressive 5:15	<b>ahead</b> 90:3 131:4
<b>a.m</b> 7:7	233:14 244:17	106:24 107:6,12	259:16,21	138:3 179:22
<b>Aaron</b> 135:8	260:24 295:16	107:19 108:3	<b>ago</b> 31:10 90:17	180:16 202:14
160:10,19 237:3	accurately 58:3,15	139:7,18,19	129:5 168:1	<b>AHS</b> 50:20 124:25
<b>AB</b> 237:3	59:16 74:5 83:23	208:11 212:21	267:14 268:2	160:20 164:1
<b>able</b> 19:13 21:3	92:6 105:20 110:5	adjusting 86:9	270:23 275:21	201:14 204:13
61:6,24 131:1	acid 68:13	107:17	276:4	205:13 207:2,25
182:12 193:1	acknowledgements	adjustment 89:6	<b>agree</b> 12:22 14:16	209:13 210:16
194:11 228:18	54:3 71:25	141:2	20:13 23:2 24:18	217:7 218:21,25
229:9 252:9	acknowledging	administered	40:2 45:11,16	225:5,6,9,23
284:21 288:18	266:17	230:13	49:15,19 57:25	226:14,16,25
above-named	ACKNOWLED	Administrator	58:2 59:14 65:9	227:2,5 246:4
294:7	297:2	1:15 294:22	65:13 74:18,18	275:11 283:17
absence 181:12	Acknowledgments	admit 291:7	83:11,17 85:23	287:7 291:18
absolute 263:18	53:15	adult 253:15,19	87:5,11 88:10	al 3:6 4:8,16,20,23
absolutely 9:15	Acquavella 54:5,8	advanced 263:2	91:17 93:10 94:15	5:9,12,15,17 6:3,6
51:17 75:4 128:18	54:15 268:6	265:4	107:14,23 109:20	6:8,11,14 13:15
129:7	acting 217:3	advances 36:21	113:10 127:17	64:7 76:2 85:2
<b>abstract</b> 78:6,14,20	action 294:13,16	advice 148:1	131:9 140:7,7,21	93:2 110:22 176:2
95:2 115:2 187:5	actions 187:24	advise 38:15	142:13 143:12	201:3 222:4
187:17 198:17	active 3:10 4:3	advised 106:4	164:18 177:20,23	225:17 250:8
264:20	43:10 112:23	147:12	177:23 179:4,8,9	254:9 259:20
academic 67:16	119:5 120:15	advisory 71:25	180:11,14 187:10	264:5 270:1
accept 22:1 65:8	actively 188:3	72:4,8	188:1 190:11	284:24,25
acceptance 164:19	activities 170:6	<b>AE</b> 25:18	200:9,10 209:5,6	<b>Alavanja</b> 4:20,23
165:8 166:8 167:9	actual 12:9 137:15	affect 124:1,3,15	210:12 224:15,19	207:10,15 221:24
acceptance-smoke	147:4 194:25	<b>affiliated</b> 66:8 78:5	242:16 244:2	222:4 225:4,17
168:5	ad 167:21,23	112:17 148:18	249:1 261:1,3	268:7,10 285:8
accepted 25:15	add 244:11 251:18	<b>affiliation</b> 67:1,16	264:21	286:9,10
29:15 64:23	addition 125:7	148:25	agreed 178:16	Alberta 67:4
164:13 245:1	additional 36:24	affiliations 66:6	agreement 58:16	alerted 287:21
access 145:22	48:13 104:9	affordable 172:22	<b>Agricultural</b> 3:9	aligned 140:10
159:13 161:16	159:16 217:17 218:9 240:9 278:8	<b>afraid</b> 40:14 45:11	4:2,17,24 5:2 6:2	<b>Alkalol</b> 127:7
182:21 207:7	278:15	166:5 <b>afternoon</b> 163:1	43:9 47:6,9,16	128:5,9
241:23 242:15	address 237:15	272:15	66:11 101:22,24 119:4 120:14	allegedly 147:6
268:12 291:24	address 237:15 addressed 47:24	age 20:14 109:2	119:4 120:14	allergy 74:12 allow 25:13 205:19
accessible 172:21	48:3 204:24 205:1	208:11 232:10	159:21 160:4,6,11	allowed 143:3
account 20:20,21	adds 137:24 138:11	234:6 235:25	161:1,13 164:6	allowing 63:11
25:19 52:8 75:14	138:18	253:2,22,22	191:10,20 192:5	allows 65:6
84:11 100:5	adjunct 148:19	256:17	191:10,20 192:3	alter 47:22
123:13 124:11	155:2	age-adjusted 17:24	195:3,20 200:11	alterations 157:13
159:25 281:22	adjust 86:14	agency 148:15	200:25 201:5,8	alternative 123:20
283:11	140:23 141:1	155:20 171:25	200.23 201.3,8	alternatives 166:11
accounted 163:11	adjusted 17:25	187:7,13	202.8,18 207.19	American 138:7
accuracy 233:17	18:18 34:5 74:10	agent 254:24	227:15 284:15	144:2 159:20
	10.10 54.5 /4.10	agent 454.44	<u> </u>	144.4 137.4U

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 79 of 114

Confidential - Subject to Protective Order

				rage 300
167:21 268:13	62:12 74:24 83:15	applicators 4:17,21	179:18 188:23	46:14 52:17 54:25
270:22	84:2 87:10 92:8	192:16,23 193:8	190:16,25 191:14	58:21 59:21 60:1
Americans 248:9	100:22 103:16	194:23 197:1,4	191:25 193:9	60:19 62:11 64:24
amount 247:13	105:10,23 107:22	200:13 201:5,17	194:9 206:19	67:23 74:23 83:14
analyses 91:14	117:5,14 118:2	202:2,10 204:15	216:11,15 231:7	84:1 87:9 92:7
101:22 108:16,19	123:3 128:8	205:1,9,12,16	233:8	100:21 103:15
108:22 119:15	129:14 130:5	207:25 208:4	arose 143:6	105:9,22 107:22
140:4 142:15	132:10 133:1,18	210:19 217:24	arrive 147:23	109:20 110:3
143:22 212:20	133:21 153:11	222:6 281:17	arrive 147.23 arrived 273:19	117:4,13 118:1
214:9 217:4	190:25 191:7	applied 219:7	article 3:6,8 4:8,13	123:2 128:7
237:10 268:19	197:6 202:4	applies 215:13	4:16,20 5:9,12,23	129:13 130:5
291:21	204:21 212:6	216:6	6:3,6,8,11,14	132:9,25 133:17
analysis 6:13 21:5	213:1,16 214:6	apply 32:18 201:18	13:15,23 21:13	147:25 153:10
21:8 46:20,21	215:9,16 227:22	202:1,8,22,25	22:23 23:11,20	163:16 190:24
48:3 69:20 75:15	232:7,21 247:9	202:1,8,22,23	24:2,7,12,18,22	191:6 192:10
76:16,20,21 77:9	249:8 250:20	258:17	24:25 25:8,15	197:5 202:3
86:23 93:5 100:4	258:9 266:24	applying 193:13	26:2,8,12,18 27:3	204:20 212:5
100:7 104:2,2,8,8	267:12	200:16	28:20 36:12 37:1	213:1,16 214:5
104:11,15 106:23	answers 10:3 62:4	appointment	37:5 38:14 48:21	215:1,16 214.3
104.11,13 100.23	297:5	148:19,21 155:1,3	48:23 49:3 64:7	235:15 246:20
118:19 130:12	anybody 9:24	appreciate 41:11	64:13 65:5 74:3,7	247:8 249:7
139:6,8 142:7	221:17 261:19	168:14 184:7	74:17 75:20 76:2	250:19 258:8
195:24 212:20	anytime 71:9	260:16	76:8 79:4,14	266:23 267:11
230:23 265:1	anyway 220:13	approach 87:19	82:14 83:25 84:21	272:22 274:13
282:9	apologize 49:12	109:17 231:2	84:23 85:2,8,10	275:16 279:8
analytic 236:14	92:17 110:3	283:24 284:2	86:6 89:24 91:2	281:3,14 283:14
analytic 230.14 analyze 46:11	153:13 179:25	approached 44:9	91:24 93:2 99:18	283:18 284:11
analyzed 64:22	187:16 251:9	approaches 108:22	102:17 110:22	285:11
122:12	257:1 265:18	appropriate 9:4	119:2 120:13	asking 15:23 59:19
and/or 147:4,6	278:22	104:7 105:2 178:8	123:17,18 132:21	101:16 103:17
animals 178:10,25	apparent 141:10	178:23 180:9,23	132:22 133:3,7,20	110:2 117:16
180:25 181:6	287:10	181:4 241:8 295:5	176:2 189:5 198:2	118:3,6 127:10
answer 9:16 10:9	apparently 69:14	area 28:18 33:5	201:3 218:25	132:5 143:12
12:2 32:8 38:9	239:18 240:20	190:19 191:1	222:4,10,11 250:8	145:19 153:13
39:18,22 45:10,20	257:4,6 261:14	argue 41:22 58:9	251:8,12 254:9,15	159:8 177:2 180:7
54:21 60:3 62:14	appear 255:13	205:23 257:24	254:19 261:23	190:18 202:5
82:3 117:6 151:14	appeared 214:11	argumentative	264:10	203:18 215:14
184:2 190:21,23	appears 107:10	15:21 42:19 57:20	articles 22:16	216:6 242:13
194:18 211:13	160:17 170:14	59:9,20,25 65:23	23:23 25:23 36:17	263:6 267:20
215:13,18,25	239:15	66:5 69:17 70:12	36:22 37:19 38:4	asleep 264:24
235:7 242:9	applicant 194:4	80:5 82:1 83:1	81:23 82:8,22	aspect 134:5
251:21 276:22	application 137:3	88:9 124:2,17	132:2,7,13,16	aspects 134:11
277:2	218:3 282:24	127:1 136:12,22	133:23,25 182:12	assay 4:14 197:21
answered 9:17	<b>applicator</b> 193:17	145:17 151:11,21	263:24	198:4
20:25 37:12 46:15	193:20,23,25	159:6,9 160:23	aside 43:23 105:3	assess 98:15
52:18 54:25 58:21	194:2,5 201:23	164:22 166:24	224:16,24	assessed 155:18
59:21 60:1,20	232:1	173:16 176:18	asked 11:8 37:11	assessment 6:9
		1,5,15,17,0,10		

05 2 24 217 12	0.16.10.12	02 11 11 17 21	104 10 107 14	20 2 16 112 0
85:3,24 217:13	assume 9:16 10:13	83:11,11,17,21	184:10 187:14	38:3,16 113:8
219:11	41:23 55:20 98:24	84:9 85:14,15,17	188:6,10 194:7	115:3 118:19
assigned 24:25	100:17 109:10	86:7 87:7 89:5,12	212:24 241:2,24	126:9,11 177:20
assisting 147:3,12	202:22 203:3,6,25	89:16 90:25 91:17	291:11,25	178:9,17,23
associa- 207:23	assumption 98:24	93:25 94:3 95:1	awareness 54:15	179:12 180:24
associate 24:25	assumptions	97:5,24 98:5	57:24 151:15	181:4 196:21
25:1,17	204:25 233:18	104:1 106:22	152:15	234:2 267:25
associated 21:10,11	assurance 130:14	110:14 111:9,12	awhile 93:23	290:21 291:15
82:6 109:1,4	asterisk 107:5,18	111:24,25 120:10	B	292:5,12
126:20,24 127:8	107:19,24 108:1	121:23 122:25		<b>baseline</b> 219:11,16
130:2 188:19	237:23 238:2	131:22 132:8	<b>B</b> 3:4 5:19 102:20	219:22 220:5
194:13 198:20	attached 182:3,5	135:3,6 138:11	102:23 103:2	229:2 230:6 231:1
206:16 207:12	295:9 297:7	139:3,11 140:3	112:22 115:13,15	231:1,22 281:9,13
212:19 214:18	attempt 151:9	158:23 160:11	115:19 116:1	281:21 283:9,17
215:1 216:1 224:5	attempted 100:5	161:9,13 176:10	125:9,18 127:11	286:1
224:18 233:22	attempting 16:14	179:17 180:22	130:2 266:18	<b>basic</b> 232:23
235:10 260:9	217:24 220:3	185:11 186:3	267:2	basically 245:4
association 13:2	attend 174:4	207:3 208:22	Baccarelli 185:13	<b>basis</b> 181:11
14:18 15:6 17:8	attendance 174:9	209:13,20,25	back 17:6 26:3	224:14
24:3 34:19,20,25	attention 171:8	217:14 221:23,24	34:21 41:8,16,20	<b>be-all</b> 15:15,19
35:6 50:2 51:17	attorney 294:12,14	225:4,23 226:3,6	42:4 45:19 48:15	16:4,6,7 29:13
56:7 58:23 61:3,5	295:13	226:12,14,23	60:23 63:22 77:22	becoming 193:22
61:6,12,16,24	attorneys 96:24	227:19,24 236:3,7	83:10 92:4 102:16	194:2
71:11,11,19 74:11	97:3 145:3 176:17	241:4,5,8,10,15	106:9,12,15,25	<b>behalf</b> 7:17 8:16
74:17,22,25 75:16	176:20 182:9	241:20 246:4,8	108:12 109:23,24	146:25 241:19
75:18 78:16 81:18	186:17	249:13 250:13,21	109:25 113:18	behavior 38:16
82:22 88:14	attributable 220:13	254:7,23 274:15	118:12 124:6,8	<b>belief</b> 103:13
100:24 105:4	attributed 220:10	274:18,21,23	125:3 135:14	<b>believe</b> 12:3 15:5
114:8,13 121:3	audience 37:22	275:14 286:6	138:2 148:10	31:5 32:17 33:13
125:9,17 126:18	Augmentative	authors' 72:24	163:3 187:17	45:23 48:23 50:20
130:15,15 139:9	145:20	143:12	192:20 216:17	77:10 82:14 84:3
139:15,20 140:5	<b>author</b> 13:24 26:7	authorship 27:1	221:7,10 228:22	86:11 100:12
141:9 143:9,21	26:7,18,19,21,23	available 39:1	248:25 255:2	104:5 112:5 118:7
157:3 202:20	26:25,25 54:16	143:25 164:9	261:11 272:11	121:18 126:10
204:9 207:23	65:19 88:5 160:20	231:21 241:14	277:3,4	127:11 131:20
208:20 209:3	161:11,15,18	244:16 255:9	background 67:18	134:22 135:12
210:1,5 214:11	164:1 222:19	269:15	backwards 9:24	139:21 146:21
251:20 256:4	224:4 245:25	Avenue 2:6	<b>bad</b> 51:20 166:19	158:8,11 159:23
262:7 263:1	<b>author's</b> 23:6 275:2	aware 54:11 57:17	251:9,10	166:18 169:5
264:18 265:9	authored 14:2	96:14 117:24	<b>ball</b> 117:18	173:17 175:12
291:19 292:15	55:10 135:3	149:14,17 150:2	barely 262:14	181:1 182:17
associations 34:7	<b>authors</b> 22:1 23:10	150:15 151:10	<b>barrier</b> 164:19	185:17 195:19
34:17 35:14,16	26:3,13 43:20	152:11 153:15,19	165:8 167:9	200:25 202:5
61:18,18,22 78:10	53:18 54:4 66:1	153:22 154:2	Barriers 166:7	203:1,22,22 206:5
78:14 81:24 91:10	66:22 67:2,3,7	161:8,12,17,22	168:4	207:7 223:3
94:10,20 109:8	72:17 74:21 75:12	163:17 172:3	base 141:16	224:21 227:6,11
110:15 265:4	80:11,18 81:14,15	173:14 183:21	<b>based</b> 23:7 36:14	237:3 248:6
	l	l	l	ı

251:19 255:13,20	137:7 207:8	272:7	5:16,18 11:3,23	181:5 207:25
256:1,6 261:21	blanks 283:16	Brennan 112:2	12:7,16,21,25	208:5 209:16
264:13 269:1,8	<b>Blettner</b> 268:18	<b>brief</b> 8:14 63:16	13:4,16,25 18:25	228:19 247:16
270:13,14 289:15	blind 23:12,22,25	<b>bring</b> 149:3 175:14	20:4,12,14,16	248:23,24 249:9
believed 206:1	<b>blood</b> 247:1,15	222:19	21:2,10,12 28:13	250:2,4,10 251:2
believes 161:20	<b>blots</b> 59:15	<b>brings</b> 173:10	28:14,16,18,21	251:25 253:14,16
162:2 163:18,21	<b>blow-up</b> 49:16	British 66:25	29:2 30:22 32:11	253:21,22
<b>bell</b> 175:10	<b>Board</b> 67:4	<b>broad</b> 113:24 188:2	32:18,22 33:11,14	<b>Cantor</b> 269:2
<b>bend</b> 9:24	<b>body</b> 11:3,14,21	broadly 180:7	33:21 34:3,21	<b>capture</b> 228:19
beneficial 14:13	12:12 83:4 170:6	brought 160:21	35:24 36:12 37:10	captured 20:2
37:9,15	251:19	<b>Buckley</b> 5:12 254:9	37:16 38:11 39:2	235:12
benefits 263:21	<b>Boffetta</b> 112:2,7,11	254:14	39:15,18,25 40:3	carcinogen 140:19
<b>Berkson</b> 268:15	Bolognesi 4:13	<b>building</b> 189:23,24	40:8,8,10,13 61:5	160:16 161:6,21
best 215:18 237:12	197:12,20 198:2	<b>bullet</b> 156:1 157:10	64:18 66:15 67:4	163:19 177:16
<b>better</b> 123:19	198:16 206:12,18	167:13 169:6	77:19,20 82:6	178:12 179:2,10
160:19 205:19	<b>book</b> 259:3	280:16	90:10,12 93:11	179:14 180:10
206:10 233:10	<b>boot</b> 3:20 165:19	<b>bulleted</b> 167:3	94:2 99:19 100:19	186:1 212:14,24
<b>beyond</b> 149:18	167:14	280:23	109:6 113:11	265:22 266:13
237:15	<b>Bosch</b> 268:20	bullets 280:1	116:5,10,13,19,22	carcinogenic 4:9
<b>bias</b> 79:1 89:25	<b>Boston</b> 1:12 7:9	<b>Burden</b> 4:21 222:5	116:24 117:2,7,9	4:11 156:3,9
90:25 91:1,12,13	148:7,21,24 155:4	<b>burning</b> 189:23	117:23,25 118:6,9	176:3 183:23
94:22 110:17	155:6 174:15	<b>busy</b> 235:8	131:16 132:1	184:25 185:6
123:13 124:11,21	175:9		143:5 148:16	187:6 212:4
126:22 141:22	<b>bother</b> 233:3	C	155:20 157:11	213:13 214:2,2,3
142:7,10,16,21	<b>bottom</b> 80:20,25	C 2:1 7:1	164:14 165:1,9,18	carcinogenicity
160:1 189:12	81:5 107:25	calculating 108:25	165:19 166:1,8	155:18 223:8
219:25 220:17	141:19 142:6	calculations 95:18	167:10,14 168:5	carcinogens 181:15
<b>biased</b> 71:4,6,9	155:16 157:9	<b>California</b> 1:1 7:12	169:19 170:8,19	186:6 187:12,15
129:20	195:16 237:23	call 19:17 55:14	171:4 172:1 187:7	cardiovascular
<b>biases</b> 258:15	239:1 279:11	64:13 67:11 85:12	190:20 194:14	202:24
biological 115:24	280:1 287:17	85:14 171:8	201:3 209:4	carefully 189:11
118:4 203:2,23	<b>bounce</b> 109:22	180:18 196:2	217:20 222:5	289:3 295:4
206:6,13,17	bouncing 187:16	218:21 265:8	223:8 228:13,15	Carolina 201:16,24
Biomarkers 64:18	boxes 60:15,18,22	284:19	246:14,21,24	carry 46:9 252:8
biomedical 5:6	Bradford-Hill 15:9	called 231:3 240:14	247:11,12 248:18	case 1:4 7:10 10:13
242:23 243:5	15:13 16:4,11,17	275:11	249:2,11 253:10	16:19,24 26:11
<b>bit</b> 9:22 18:4 97:21	16:20 17:2 29:10	calling 27:11 65:21	253:19,19 259:17	48:10,13 60:7
184:17 202:23	29:21 30:18,19	97:2 <b>calls</b> 31:14	259:21 260:3,6,11	67:23 79:6,22
218:19 228:12	33:23 34:1 73:15		260:13,21 264:7	80:8 82:6 83:5
257:21 288:21	136:17 137:2	<b>camp</b> 3:20 165:20 167:14	264:12 265:4,13	88:1 90:7,13
black 60:15,18,22	168:7,11,15,23	Canada 66:15	266:7 268:13,24	96:17 98:22 99:7
<b>Blair</b> 135:8 137:9	169:4,7,12 268:21	142:10 156:18	270:10	99:9 105:14
160:10,19 161:8	Bravata 268:23	Canadian 141:23	cancers 5:10,25	106:14 135:11,16
163:17,24 164:1,5	break 41:10 63:12	142:8,11	32:12 33:9 39:9	142:22 144:2
207:3 237:3	63:14,16 106:4	cancer 3:7,19,20,22	39:12 49:6 113:14	147:21 157:1
268:16	162:6 220:24	3:24 4:16,21 5:8	113:15 117:11	159:20,24 160:3
<b>Blair's</b> 135:13	224:25 261:5,6,7	J.47 4.10,41 J.0	178:9,24 180:24	173:9 181:21
L	1	1	1	1

				rage 303
182:16,20,25	33:7,10 39:9 42:5	Certified 1:16	<b>Charlie</b> 270:25	citing 245:15,25
183:3 193:3	42:18 82:16 90:10	certify 294:5,11	chart 105:19	claim 29:25
196:16,20 202:10	115:13,14 116:4	297:4	109:21 110:4	claims 262:18
204:8 205:2,3,6	123:22 126:20	Cervical 3:23	check 221:12	<b>Clapp</b> 4:7 174:12
205:14 216:23	132:1	171:3	<b>chemical</b> 3:9 4:2	175:3,8 176:10
220:3 231:21	caused 40:10 147:6	Cetrulo 1:11	43:10 78:15	177:7 178:4
244:10 269:24	157:13 165:9	<b>chair</b> 137:16	110:15 114:2	181:10
273:16 275:8	199:10 248:11	chairman 160:14	119:4 120:15	clarification
278:3 290:25	causes 20:3 32:13	challenge 188:21	126:13,17,24	131:23
case-control 76:17	33:4 35:9 39:2	188:24 189:16,20	212:18	<b>clarify</b> 203:19
142:8 156:17	40:12 70:2 116:10	challenging 32:24	chemicals 69:1	228:11 272:20
case/control 98:18	164:13 170:8	<b>Chan</b> 3:16 154:7	89:21 95:17	clarity 23:6
cases 1:5 16:16	187:12 253:14,15	169:23 170:25	126:19 127:19	<b>class</b> 30:17,25 31:1
21:2 48:6 90:9,21	253:18,19	171:9,11 174:23	128:1 139:7,18,19	31:5 115:1
90:22 98:25 113:8	caution 100:16	250:16	157:12 212:21	<b>classes</b> 31:2,25 32:6
118:20 126:10	209:13 226:12	<b>chance</b> 19:11,14,17	213:3 216:23	classification
143:5 192:4,10	cautioned 99:6	19:21 251:14	218:5 232:9 286:3	150:19 177:15
categories 5:8	cell 6:7 76:4 102:20	256:9,13	Chen 5:9 250:7	186:7 213:14
18:21,24 68:21	102:23 103:2	chances 252:12	chewing 116:4	223:21,24
73:22 220:21	112:22 125:9,18	Chang 5:23 43:24	<b>child</b> 11:19	classified 156:2
248:17	127:11 130:2	44:4,11 48:21	<b>childhood</b> 5:10,10	212:3 213:12
category 36:2	Center 5:7 171:14	49:2 51:24 53:1	250:4,4,9,10	229:4
100:6 204:6 219:8	248:12,16	54:4 55:14,17	251:1,1,5,25	classify 280:22
237:12	<b>Centre</b> 66:10,23	57:19 59:14,23	253:14,18	<b>clean</b> 239:7
<b>causal</b> 11:6,19	<b>certain</b> 16:12 77:25	60:14 74:2 84:4,9	children 5:12	cleaned 241:6
12:21 30:1 33:14	85:22 102:15	92:10 105:21,25	251:14 252:12,19	cleaned-up 289:22
33:21 34:20 61:21	111:23 120:4	109:21 110:4,7	252:23 254:3,10	<b>clear</b> 23:10 27:17
75:17 88:14 101:3	165:13 192:21	120:18 123:11,18	<b>choice</b> 245:10	124:20 132:20
104:25 105:4	205:10 209:1,6	269:3,5	choosing 141:16	180:21 184:3
126:11 130:15	240:2	Chang's 5:3 44:20	<b>chose</b> 286:6	207:5 226:25
203:14 204:3	certainly 15:15	44:23 51:8 60:4	<b>Chris</b> 7:4 175:15	240:6 252:3
224:23 256:4	22:8 23:2 25:5	83:20,24 92:4	178:3	272:19
292:15	26:15 29:23 33:3	105:19 144:12,15	Christiani 185:12	clearly 140:25
<b>causality</b> 29:16,22	34:10 36:9 44:14	<b>change</b> 38:16 47:22	CHRISTOPHER	<b>clinical</b> 38:13,15
30:4 31:17 34:12	66:6 75:2 81:19	106:4 273:21	2:19	247:25
58:25 82:19,23	89:22 101:18	296:3	chronic 168:17	<b>close</b> 20:25
83:6 136:18 168:7	117:8 123:25	changed 62:21	250:25	<b>clothes</b> 190:15
168:10 222:21	132:11 187:13	236:12 237:17,20	<b>Chu</b> 279:18	<b>clothing</b> 203:8,9,12
262:19	195:5 199:22	changes 288:4	cigarette 167:23	204:16,18
<b>causally</b> 75:5 81:20	212:16 220:1	297:6	circadian 265:21	<b>CLR</b> 294:3
81:22 82:6	241:7 253:1,11	characterize 13:9	circulated 240:4	co-author 14:6
causation 8:17	262:20 265:25	125:21 131:21	cite 126:1 245:9,22	26:25 77:13 164:6
12:15,24 15:4,9	268:3 291:8,17	characterized 13:6	255:19 263:24	co-authored
15:16 16:5 31:12	certainty 38:18	70:14	275:15	137:10 185:21
34:2 37:2 38:20	42:16 124:1,15	characterizing	cited 245:1 271:23	co-authors 27:22
168:19 169:13	249:20 267:15	220:15	274:22 275:3	240:5 275:10
cause 14:19 32:8	274:2 292:11	charges 189:11	287:2	281:10,21 283:10
L	1	I	ı	ı

co-signed 175:14	comfortably	184:6 210:25	91:1 177:14	257:16 262:13
Cocco 6:14 110:21	255:11	community 36:22	183:22 185:25	confident 62:6
111:1,3,4 118:13	coming 41:7 44:2	38:15 164:20	186:24 189:13	confidential 1:8
126:3,9 269:7	136:17 145:10	166:15 167:4	293:3	8:20
codes 157:14	146:3 199:16	241:22,25 245:24	concludes 292:24	confidently 101:13
coffee 159:4	285:1 290:24	262:22 291:24	conclusion 11:16	<b>confirm</b> 41:18
<b>cohort</b> 14:1 21:12	commencing 1:13	companies 165:7	14:11 27:8,10	45:14 143:25
159:22 160:3	comment 8:14	167:11,12	71:21 91:18 139:4	227:10
174:5,5 181:23	56:20 65:5 188:5	companies' 164:20	150:22 152:2	confirmatory
192:12 194:22	207:16 213:22	company 53:10	158:6 159:15	47:23
200:5 201:15	236:19 249:16	55:12 56:13 66:7	161:4 181:11	confirms 140:4
205:13,17 209:14	commentaries 80:6	compared 18:22	187:21 199:16	146:24 291:17
217:9 225:9	commentary 179:6	73:20 117:22	224:20 226:14	conflicts 53:24
226:20 227:1,2	179:20 180:15	236:18 266:21	254:20 260:7,23	confounded 100:14
228:20 231:16	181:20 182:1	comparing 36:2	266:10,10	confounder 35:5
235:6,13 262:25	185:12 186:3	compelling 70:18	conclusions 27:18	214:11,15 216:19
281:13	commented 27:20	139:21	37:13 136:11,18	216:25 217:3
collaborated	251:7	compensation	141:3 143:13,14	confounders 109:8
254:17	commenting	188:11	151:22 152:5	109:16
colleagues 102:17	237:10	complete 46:2	156:12 173:10	confounding 34:24
147:25 285:9	comments 22:2	280:19	177:20 178:1,17	88:18,23 89:8,14
286:10	23:4 25:7 54:6	completed 229:20	179:12 182:1	89:20 139:23
<b>collect</b> 217:16	57:4,12 240:5,8,9	229:24 232:20	201:25 227:8	212:12
<b>collected</b> 217:2,23	289:5,21,24	234:8	243:17 244:8	confusion 268:11
218:7 235:13	commercial 192:16	completely 89:18	257:8 266:1 278:2	272:19
collecting 95:24	192:23 201:17	180:21	278:3	connection 147:4
collection 218:13	204:14 205:8,11	component 128:15	condition 32:8	consciously 228:8
283:17	205:15 208:4	Compound 192:8	114:17 115:12	consensus 170:7
Columbia 66:25	217:24	compounds 68:15	conducted 15:2	conservative
<b>column</b> 109:17	commission 297:18	comprehensive	16:13 130:11,17	209:21
178:6 211:21	<b>committee</b> 5:5 72:1	217:16	130:20 142:8	<b>consider</b> 59:1 83:4
<b>columns</b> 223:22	72:4,8 149:11	<b>concept</b> 9:11 73:11	143:2 205:4,18	110:12 246:11
combine 130:9	242:21 243:2,25	77:1 99:9 115:7	conducting 90:7	264:25 282:4
combined 116:1	245:18	concern 48:19	conference 244:15	consideration
282:25	<b>common</b> 26:2,4	141:23 142:11	245:22 270:14	99:13 285:1
combining 52:21	50:8,11 101:1,2	250:24	275:5	considered 5:19,22
120:21	113:15 114:1	concerned 90:14	conferences 134:16	21:22 90:25 91:15
come 34:23 47:18	166:14 167:4,6	99:6 220:4 289:17	135:1	181:14 182:3
51:11 102:5 106:1	190:12 207:24	concerning 153:23	confidence 19:23	214:10 255:3
110:8 131:25	235:5	170:19 175:16	28:6 69:9,12 74:5	263:21 264:17
146:1 159:15	commonplace	228:15	78:20 82:17 83:22	266:19 267:3
213:21 231:22	22:19	concerns 144:1	84:4,7 87:3,13,24	275:17,18 277:11
comes 84:5 92:11	Commonwealth	186:8	88:7 92:9 95:7,14	277:17,23 278:12
102:3 219:4	294:1,4	<b>conclude</b> 75:16	103:7,9,18 105:11	283:5 285:5
252:17	communication	80:18 181:13	110:11 120:22	290:23 292:1,4,6
comfortable 78:25	227:23	214:1	121:15,21 129:8	considering 131:13
191:2 199:15	communications	concluded 39:1	208:17 209:22	considers 210:18
	1	1	1	1

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 84 of 114

Confidential - Subject to Protective Order

consistent 19:2	84:19 86:17 87:19	114:10,20 115:16	253:6,20 255:5,23	281:5,6,10 283:12
88:23 100:25	95:17,23 104:18	116:6,14,18,23	258:8 261:4	284:1 286:1,2,8
110:17 139:22	108:6	117:4,13 118:1	262:10 266:23	286:14 288:10,11
141:12 156:16	controls 90:12 99:1	123:2 124:2,17	267:11 272:3,6,14	289:6,7,11,13,14
208:19 236:17	109:18 113:9	127:1 128:7,12	273:11,14 274:11	290:12,12,13,19
237:1 266:10	118:20 192:4,11	129:13 130:4,24	276:5,17 277:1,9	292:9,19 297:5
constitute 280:18	convenient 31:17	132:9,25 133:9,17	277:14,19 278:7	corrections 295:4,6
consultant 148:6	conversation	134:12,20 135:4	280:17,24 284:9	297:6
consulting 147:1	118:16 164:8	135:24 136:3,5,12	287:4 290:1 291:5	correctly 18:8
contact 25:2 63:4	conversations	136:22 137:18	292:20	68:18 73:8 109:21
130:25 246:8	147:16	138:24 142:1	<b>copy</b> 5:14 13:19	138:23 147:7
contacted 24:21	coordinated 172:20	144:7 145:17,20	48:25 75:23 111:6	186:12 203:10
96:21,25 97:4	<b>Cople</b> 2:10 3:3 7:19	146:11 147:9 <sup>°</sup>	120:6,7 134:20	<b>Coughlin</b> 2:19 7:4
147:14	7:20 8:1,13 11:24	149:15 150:20	175:5 227:18	counsel 2:7,13 7:14
contacting 274:17	13:1 14:20 15:11	151:11,21 152:13	239:17 242:6	59:8 173:9 272:23
contains 273:18	15:21,24 16:8,23	153:4,10,17,25	256:19	279:7 283:14
content 289:5	18:15 20:5,8 22:6	155:23 156:5,22	corporations 53:4	Counselor 242:18
context 28:14	23:14 24:14 25:10	157:19 159:6,9	correct 11:9 14:3.7	count 65:15 82:11
56:25 89:17 97:12	26:1,9 27:12,16	160:23 161:23	18:10 19:9 21:16	111:10 135:6
128:19 167:3	29:6,17 31:13	162:3 163:5 164:3	44:7 49:25 50:13	counterfactual
168:13,18 250:23	32:9,20 33:12,24	164:22 165:5,10	50:21 51:6,10	31:18
266:5	34:13 35:17 36:8	166:20,24 170:10	58:6 60:23 67:6	countries 155:18
context-specific	36:19 37:11 38:6	170:20 172:6	67:10 76:10,18	172:23
260:20	38:21 39:3,10,19	173:16 175:5	79:9 80:8 94:7	<b>couple</b> 27:5 54:10
continue 187:22	40:5,19 41:18,24	176:13,18 177:3	95:15 99:3 102:10	54:16 94:25
contract 55:5	42:7,10,19 43:2	179:18 183:14,24	102:25 111:13,20	146:14 171:21
contrary 181:12	44:25 45:6 46:14	186:13 188:8,23	112:25 113:3	185:15 272:18
contrast 109:11	47:7 48:25 52:3	190:3,7,16,24	120:1,16 121:6,17	<b>course</b> 10:22 31:11
contribute 121:24	52:17 53:5,8,21	191:6,13,21,24	122:1,8,11,14,22	40:10 67:20 73:14
contributed 166:1	54:13,24 55:7	192:8 193:9 194:9	126:5 135:6 138:9	102:23 111:7
contribution 56:25	56:3,16,23 57:6,9	194:18 195:4,12	145:5 149:2,7	134:21 165:25
contributions	57:20 58:7,17,20	195:21 196:12	150:22 152:4	196:13 231:16
187:23	59:8,17,20,25	197:5,13 198:24	155:10 158:5	241:10 247:19
<b>control</b> 16:24 21:3	60:19 61:9 62:1	199:13 202:3	160:13 166:4	249:12 273:22
90:7,14 95:19	62:11 63:9,24	204:20 206:19	169:13 182:5	287:21
96:1 98:22 99:9	64:25 65:17,23	207:13 210:22	183:11 185:8	courses 30:20
106:14 108:11	66:5 67:13,24	211:4,11 212:5,25	201:10,20 206:18	<b>court</b> 1:1 7:12,22
142:22 144:2	69:17 70:12 72:21	213:15 214:5	206:22 208:6,10	8:2 295:16
157:1 159:20,24	74:23 79:23 80:1	215:8,15 216:11	212:1 218:2,12	courteous 9:25
181:21 193:3	80:4,15 81:25	216:15,20 217:11	219:17,22 230:1,7	courtesy 10:4
196:16,21 204:8	83:1,14 84:1 87:9	221:12 223:11	230:22 247:20	274:17,24 275:2
205:2,4,6,14	88:8 92:7 94:12	227:21 229:12	248:2 257:5 259:2	covariates 231:18
215:4 216:4,23	94:18 97:7 98:2	231:7 233:1,4,8	259:14 260:6	cover 238:20
237:16 269:24	100:21 103:15	238:18 242:5,11	262:6 274:10	covered 136:1
controlled 21:8	105:9,22 107:21	247:2,8 248:4	275:24 276:2,9,10	<b>create</b> 232:13
99:8 258:14	111:6 112:9	249:7 250:19	277:6,12,13	credentials 137:7
controlling 69:1	113:12,22,25	251:23 252:21	278:12 279:13,14	criteria 15:10,13
			<u> </u>	<u> </u>

16:4,12,17,20	151:23,23 159:13	<b>debate</b> 52:15 59:7	231:19	designates 8:20
17:3 30:18,20	151.25,25 159.15	79:12,15,21 132:7	demonstrate 11:5	designs 142:9
33:23 34:2 73:15	164:9 166:10	<b>December</b> 287:19	12:14	despite 226:15
136:17 137:2	177:14,21 178:11	decide 21:25	demonstrated 73:6	258:19
168:23 169:7,12	177:14,21 178:11	241:11,15	142:15 202:19	<b>detail</b> 11:11 102:1
177:15	206:3 209:1,7	<b>decided</b> 16:19	206:23	125:3 284:17
criterion 29:21,24	217:1,16,20 231:3	26:14 65:11 97:25	department 66:7	detailed 218:7,11
critical 33:20 41:6	231:10 233:9,25	225:23 226:4,6	67:8 78:5 190:2	details 150:2
151:22	234:1,18,21 235:1	227:19 228:2,8	190:15 250:15	173:19,22 200:20
criticism 131:22	235:2,3,12 236:7	decision 25:18	depend 259:9	determinants
184:14	236:16 237:19	171:15 237:4,6	dependent 127:23	20:16
criticisms 79:7	245:21,21 251:4	263:19 291:22	depends 14:21	determination
80:14 88:17,20	260:8 274:21	decisions 35:15	23:15 56:24	133:24 282:5
133:4 135:21	275:15 282:9,20	38:3 188:4 212:8	114:22 115:18	<b>determine</b> 11:18
186:6,24 189:14	282:21 289:4	213:3 236:14,15	116:24 234:25	12:19 23:2 29:16
196:6	date 1:13 7:6 14:13	236:15 237:18,18	depict 28:4	82:16 88:12 98:5
criticize 96:3,6	27:19,24 37:8,14	decrease 36:2	deponent 7:13	141:6 186:7
118:17 139:16	70:15 123:10	88:22	297:2	269:14 289:24
151:19	138:11,16 168:25	decreased 198:19	deposed 9:7	determined 82:24
criticized 130:22	239:20 278:13	199:3 206:14	deposing 295:12	82:24 151:8
131:17	287:19,25 288:5	decreases 18:25	deposition 1:10 7:8	determining 15:16
criticizing 91:25	288:10,16,25	deemed 295:16	8:19,22 135:10,13	33:20 34:2 82:5
132:22 133:7,16	291:2 295:9 297:9	defendant 2:13	135:18,18 136:25	256:7 283:4
crossed 288:4,5,22	dated 244:12	68:8	195:13 207:6,8	<b>develop</b> 246:25
CSR 294:23	dates 269:14	defense 184:13	273:3 277:15	developed 48:6
cumbersome	287:16 288:3,12	<b>define</b> 84:15 89:23	288:2 289:2	196:22 266:21
267:23	288:16,20	214:14	292:25 293:2	developing 127:24
cumulative 282:1	day 68:21 75:8	<b>definitely</b> 41:5 70:6	295:3,10,14,15	172:22
current 62:22	289:2 294:5,18	126:10 228:4	depositions 135:15	development 11:7
236:17 254:20	297:17	252:9 268:9	183:5 278:16,19	11:19 13:4 33:8
currently 29:4	days 44:18 68:18	definition 31:12	278:23	33:15 82:7
112:16 148:18	68:20,22 100:2,7	62:20,23 210:14	deps@golkow.com	diagnosed 220:10
CV 9:21 28:23	139:14 211:25	210:17 236:11,17	1:20	diagnostics 3:24
77:16 82:10	282:1,2,3 295:13	236:25 237:1,6,17	describe 28:16	171:5 172:21
cytokinesis 197:20	days' 69:7	271:16	104:4 115:21	dialogue 131:19
cytokinesis-block	days/years 140:14	<b>degree</b> 16:15 42:16	186:10 259:5	132:16
4:14 198:4	<b>DC</b> 2:12	109:5 123:25	260:17 284:17	<b>died</b> 230:19
	<b>DDT</b> 4:19 213:8	124:14 249:19	described 115:4,6	<b>dietary</b> 279:19
<u>D</u>	<b>De</b> 4:16 6:8 50:16	274:1 292:11	148:25 284:11	difference 42:25
<b>D</b> 2:18 7:1	50:19 84:23 85:1	degrees 196:15	286:16	206:6,14,17
<b>D.Sc</b> 4:7 175:3	92:5,16,18 106:15	<b>Delzell</b> 5:23 49:3	describing 109:17	287:20
damage 248:11	122:2,5 201:2	84:9 92:10 105:25	description 3:5	differences 4:9
damaged 157:12	269:9 281:1,9	110:7 120:18	115:8	176:3 287:11,13
<b>Dana</b> 166:1	282:7 283:9 286:1	123:12,18 269:3,5	<b>design</b> 69:20 75:14	287:22 289:4
data 23:6 64:23	deal 23:5 236:11	demographic	99:9 226:20 227:1	<b>different</b> 21:4 28:5
76:22,23 88:6	dealing 49:25	208:11	286:12 290:2	32:13 33:7 65:16
102:7 142:23	236:20	demographics	designated 265:20	65:18 90:11
	ı	l	ı	ı

130:10 142:18	97:24 122:10	135:4 138:24	163:24 164:1,5	211:15
195:25 202:9	169:8	142:1 144:25	181:10 182:15,18	211.13
203:24 205:14,24	discussing 21:14	145:15,23 147:9	182:20,24 183:2,4	$\overline{\mathbf{E}}$
231:18 232:8	29:9	153:4 154:7,13	183:5,6 185:12,13	E 2:1,1,18,18 3:4
238:16 249:20	discussion 70:9	155:23 156:22	185:13,13,14,20	7:1,1 296:1
253:15,24 257:22	89:17 91:4 98:10	158:20 170:10	198:16 206:18	e-mail 63:2
257:25 281:15	140:2 141:18	172:6,8,14,16	207:3,8,10,15	e-mailed 96:8
287:8	186:23 242:12	176:13 179:23	221:24 222:11	earlier 27:9 29:10
differential 97:18	discussions 82:18	180:19 186:13,18	225:4 250:18	54:6 164:12 229:3
difficult 34:23	disease 20:17 30:2	189:1 213:15,18	254:14,16 259:25	259:1 278:18
35:10 98:14	34:4 70:2 84:17	223:11 239:23	264:11 272:15	287:5,16 288:1,12
168:13 240:21	84:19 97:15,17	243:19 248:13	278:19,19 281:9	289:19 290:20
259:8 288:21	98:23 114:24	274:20 277:20	292:25	early 168:24
<b>direction</b> 142:4	168:17,17,19	282:7 286:18	<b>draft</b> 5:1 6:1 27:24	240:24 241:2
294:10	196:23 202:25	287:6 288:9	47:20,21 134:4,13	easily 69:25
directly 90:22	206:7 214:20	<b>documents</b> 287:8	161:16 218:23,24	easy 58:23 100:23
185:17 204:24	215:2 216:2	doing 8:24 60:5	227:5,13 229:1	261:7
disagree 74:16	247:11 262:13	166:18 224:12	238:17,18 240:17	Ecological 166:10
75:11 81:13 89:13	263:2	290:22 295:8	240:18,19 245:5	edit 56:20 57:8
91:19 98:21 126:6	diseases 253:23,24	<b>Donna</b> 56:15	246:4 268:10	289:21
136:10,16 139:3	<b>dispute</b> 249:5	dose-response 71:4	270:21 275:11	editor 24:25 25:2
140:8,21,22	disruption 5:17	71:6 72:18 73:4,6	286:15,21,25	25:17 79:11 91:25
142:13,18 143:14	264:6,11,22	73:10,14 101:22	287:7 288:1,9	92:3 96:3 131:17
152:4 156:8,11	265:21 266:6	265:1 291:20	289:12 290:9,12	editorial 57:12
157:6 159:2 161:4	dissemination	doubling 100:10,20	290:25 291:15	237:18
177:19,24 178:13	243:16 244:7,18	104:20 125:19	292:1	editors 5:5 24:22
178:16,22 179:3,5	dissertation 149:10	<b>Dr</b> 5:3 7:13 8:17	drafted 26:12	25:24 65:10 132:7
179:8,9,11,16	distinct 253:23	9:4,6 14:6 22:12	drafters 274:15	241:25 242:22
180:2,11,14 181:3	distinction 184:8	32:7 33:10 39:16	drafting 48:8	243:3 244:1
181:16,18,25	distribution 109:10	42:4 44:11,20,23	drafts 54:7 63:3	education 109:6
183:12 224:9,15	<b>District</b> 1:1,1 7:11	51:8,24 53:1 54:4	238:13 239:23	201:22
224:19,21 244:9	7:12	54:15 55:9 59:14	268:12 287:12	effect 29:11 49:24
disagreed 136:14	division 67:4	59:23 60:4,14	draw 59:13 141:4	50:5 86:7 107:15
137:3 178:16	<b>DNA</b> 157:12	63:11 64:15,16	<b>Dreiher</b> 269:10	115:22,25 209:17
258:3	<b>doctor</b> 63:15 64:12	66:10,14 74:2	<b>drink</b> 116:17	290:17
disagreement	68:23 106:12	76:9 78:2 83:20	167:22	effective 235:25
136:10	120:7 126:25	83:21,24 84:23	drinking 116:12	<b>effects</b> 89:9,20
disagrees 152:2	134:3 144:22	92:4 96:8,19,22	117:21 118:5	109:11
disciplines 26:15	174:22 197:18	99:18 101:6	drive 220:17,22	<b>effort</b> 246:3
186:4	221:10 247:22	105:19,21 112:11	<b>drove</b> 141:7	<b>EFSA</b> 4:10 176:5
<b>disclosed</b> 57:3 70:8	283:2	135:8,13,17,18,19	<b>Drs</b> 269:18	<b>eight</b> 65:16 111:5
137:14	doctoral 149:10	135:20,22 136:8	<b>Dubrow</b> 269:11	111:11
disclosure 53:19,22	279:18 280:5,9,15	136:14,24 137:7,9	due 4:21 91:11	<b>either</b> 21:9 25:7
discredit 151:9	doctorate 247:23	143:18,19 144:12	143:6 222:6 256:9	31:2 43:6 64:23
discuss 36:23 108:6	<b>document</b> 1:5 3:16	144:15 149:4,6,22	256:13	67:15 79:7 80:12
249:9	45:7 72:21 90:5	152:1,11,15,25	duly 8:7 294:7	102:14 120:10
discussed 64:21	108:14 130:4	161:8 163:13,17	duration 100:5	204:12 218:4
	<u> </u>	<u> </u>	l	

				3
275:4 291:19	<b>epi</b> 31:4 233:19	110:20 126:2,12	etiologically 253:23	224:22 227:10
ejaculation 3:6	epidemiologic 11:5	126:14 127:9	etiology 36:11	252:16 254:21
11:22 12:6,20	12:14 16:9 34:4	269:17,24	European 21:16	262:19 290:21
13:3,15,24 14:13	35:11 40:20 42:21	Eriksson's 122:9	24:3,4	291:2,12,13,15,19
17:7,22 18:21,24	47:19 62:22 137:4	errata 295:6,9,12	evaluate 4:19 11:1	292:14
20:7,22 21:1	147:18 151:17,23	297:7	19:13,21 21:24	exact 77:17 82:11
23:20 35:23 36:3	152:6 156:12	especially 90:15	29:2 42:20 44:8	103:25 138:16
37:9,15 57:4 61:4	158:1 164:25	95:16 216:22	51:14 151:16	287:25
61:7 70:5,7	177:21 179:12	266:15 291:22	160:19 164:24	exactly 43:21 51:22
131:15,25 174:6	180:3 196:14	<b>ESQ</b> 2:3,3,4,10,10	194:12 213:8	57:13 92:19
ejaculations 18:23	231:9,13 246:17	established 20:13	246:17	108:13 177:4
ejaculators 12:15	epidemiological	32:12 33:2,13	evaluated 51:18	183:16 184:3
12:24	38:25 140:11,17	37:2,6 39:24	53:24 109:7	218:6 279:2,2
elevated 138:20	223:7 224:3	82:19 83:6 231:9	110:16 114:2	291:8
140:12	epidemiologist	231:12 256:10	216:24 223:21,23	exam 193:24
emeritus 174:18	15:8 17:12 28:17	260:22 284:3	evaluating 4:11	exam 173.24 examination 3:1
175:9 177:1	29:3 30:12 31:16	estimate 82:12 84:3	16:11 46:24 69:11	8:9 186:9 272:13
emphasis 47:5	32:22 54:12 55:5	84:6,8 87:3,14	98:22 184:24	294:9
employed 108:21	88:11 99:5 232:3	92:9 103:7,9	185:6 202:12	examined 8:8
148:4,6 149:5	246:14	107:6,19 108:3,25	212:17 213:5	186:6 263:1 294:8
294:12,14	epidemiologists	110:11 121:11,21	266:14 278:1	example 18:18
employee 54:12,23	79:10 97:1 112:6	125:17 127:25	<b>evaluation</b> 4:9	34:22 35:20 102:8
294:14	epidemiology 11:3	128:22 129:7,16	66:23 138:5	143:1 187:8,11
employment 55:1	28:9 29:15 30:7	129:18,19,22	140:18 176:4	220:9 229:3
148:7 149:6	30:10,16,21,22	249:11 256:2,6,8	178:9,24 180:24	230:16 235:21
encompassed	32:11 33:17,19	257:14	181:5 186:5 187:6	257:20 278:15
232:11	60:17 61:20 64:18	estimated 33:5	280:14 281:11	examples 69:19
end-all 15:16,19	66:15 67:5 73:12	282:20	292:13	101:19 136:25
16:5,6,7 29:12	77:2 81:23 97:13	estimates 28:6	evaluations 186:10	exceeds 132:15
Engel 269:12	136:21 161:3	60:25 69:23 86:8	186:11 189:12	Excellent 9:1
enrolled 192:13	168:16 190:20	101:18 107:15	event 14:18 260:21	exceptions 73:3
193:10,11	247:23 271:16	121:3 130:7,10	event 14:18 200:21 ever/never 217:17	exclude 286:6
enrollment 193:13	284:4 290:2	141:16 202:15	218:8 291:19	excluded 139:8
201:19 217:15	equal 68:20	226:19	evidence 11:4,14	excuse 8:13 124:9
230:14 282:21	equals 282:23	estimating 19:13	11:18,21 12:12,23	146:11 220:23
ensure 34:18	equipment 197:2	estimating 19:13	13:7 14:12,17	238:3 240:16
enthusiastic 257:5	203:16 204:2,23	estimation 108.24 estimations 209:17	15:5,15 17:8 27:8	Executive 248:21
entire 35:6 41:5	281:16,23 282:4	et 3:6 4:8,16,20,23	27:11,18,23 37:6	exercise 17:3
168:6 179:6,20	282:24 283:1,8,11	5:9,12,15,17 6:3,6	37:8,14 40:21	202:24 246:6
180:15 181:20	equivalent 99:1	6:8,11,14 13:15	42:12 47:10,24	exhausted 18:5
267:21	130:7	64:7 76:2 85:2	70:11,15 83:4	exhibit 5:19 13:13
entirety 8:20	Eriksson 6:11	93:2 110:22 176:2	99:2 123:9 132:3	13:14 35:22 43:7
environmental	50:24 76:9 92:22	201:3 222:4	157:2,10 158:2	43:16 44:22 49:2
85:20 111:15,19	93:2 95:1 96:4,6	225:17 250:8	159:17 160:20	51:25 64:6,13
119:23 185:4	99:18 102:17	254:9 259:20	161:5 180:4	74:2 76:1 83:20
250:15	105:20,24 109:21	264:5 270:1	181:12 213:20,22	85:1 93:1 110:21
EPA 269:13	109:25 110:1,5,9	284:24,25	217:2 223:7 224:3	119:1 134:7
2111207.13	107.23 110.1,3,3	207.27,23	211.2 223.1 22 <del>4</del> .3	117.1 137./

144:16 146:7,8	269:18 271:23	110:23 112:23	<b>Facebook</b> 44:16,17	54:2 55:19 67:11
152:20 154:5,6	272:25 273:6,15	115:12,13,25	fact 69:3 88:13	67:20 75:10 77:2
158:11,13 165:16	275:8,12 277:12	116:1,1 119:3	91:9 110:14	82:25 89:12
165:17 169:15,16	278:2,21 281:8	120:14 130:16	126:13 170:17	124:16 149:8
171:1,2 173:4	285:1 287:3	140:6,13 143:7	172:4 200:18	152:1 157:24
174:23 175:1	290:24	156:17 193:1	206:13,18 212:18	160:8,18,22
176:1 184:20,23	expertise 137:7	194:12 196:17,19	236:11 244:11	172:24 173:21
185:3 198:1 201:2	190:20,22 191:2	199:11,23,24	246:18 247:12	179:16 214:21
206:12 213:5,6	249:4	203:24 204:3,5,11	258:19 266:3	215:22 220:18,19
222:2,3 224:24	experts 20:12 38:4	205:20 206:2,7	277:10	223:2 234:23
225:16 227:4,13	155:17	207:24 210:21	factor 6:6,11 11:6	246:10,23 249:18
242:21 243:1	expires 297:18	211:10,14,16,20	11:19 12:21 30:1	257:8 260:16
248:15 250:6,7	<b>explain</b> 9:11 17:11	211:24 214:17,18	33:14,21 34:24	265:8
254:8 256:17,19	18:13 34:25 70:22	215:1 216:2	35:1,3 39:11,14	fairly 97:22 180:16
259:19 261:24	76:19 97:20	217:13 219:11,16	39:24 40:8,17,22	252:2
264:4 266:18	191:15	217:13 219:11,10 219:23 220:2,5,6	76:3,12 81:1,12	faith 256:6
267:1,2 273:2,3,5	<b>explained</b> 94:22	220:11 222:7	81:16 83:12 84:16	fall 31:9
275:7 277:14,16	explaining 127:12	224:1 229:2,6	84:17,18 93:3	falling 264:23
279:4,23,23,25	194:4	231:1,4,5,21,24	94:5 101:14	false 226:21
285:13 286:18,20	explanation 126:21	233:11,22 250:3,8	157:23 214:19,20	familiar 52:25 54:9
287:6,16 289:8,9	explanations 88:12	250:25 251:15	214:22 215:2,23	55:9 56:18 97:22
289:12	exploratory 118:21	250:23 251:13	214.22 213.2,23	137:8 144:13
exhibits 8:21 281:1	Exponent 3:12	254:22 256:4	factored 34:2	157.8 144.13
exist 195:19 253:25	52:24 53:1,2,3	254.22 250.4 259:10 274:6	214:24	171:14 172:16
existed 194:15	62:24 63:2,5	281:13,24,25	factors 6:9 20:11	171.14 172.10
existing 159:17	144:5,17	281:13,24,23	20:13,18,21,22	familiarity 242:2
expect 61:6 196:18	exposed 31:19 50:8	283:4 292:15	30:3 33:2 34:16	245:19
expect 61.6 196.18 expenses 188:19	50:11 68:17 100:2	exposures 5:12 6:4	81:24 82:5 83:16	family 20:14 74:13
experience 24:5	101:9 113:8,9	33:8 64:9 71:20	84:20 85:4,25	far 132:15 239:17
31:21 65:3 210:20	114:15,18 115:15	90:16 91:12	100:15 104:6,18	289:17
211:9 246:16	114.13,18 113.13	114:24 115:2	100.13 104.0,18	Farber 166:1
expert 5:19,20 8:18	229:10 230:3	114.24 113.2	208:12 231:18	Farmer 56:15
11:2 32:16 38:19	232:14,15 283:6	226:18 232:8	232:11 233:21	farmers 192:6,15
41:7 44:3 47:5,22	exposure 3:9 4:2,22	246:21 253:10	234:2 235:10	193:4 255:7
67:23 79:6,22	5:10,24 6:6,11,14	254:10	253:24 260:22	farming 255:3,11
96:9,15 119:16	14:18 30:1 31:21	<b>extend</b> 10:3	279:19 281:16	255:13
130:23 133:15	32:3 34:7 35:2	extension 79:16	283:5	farther 239:19
135:25 145:10,24	43:9 49:5 50:7	extension 79:16 extensive 71:3	facts 270:10	Fasal 269:20
		extensive 71.3 extent 31:14		<b>fashion</b> 77:18
146:4 147:1,17,19 147:21 151:19	70:2 73:5,20,21 73:23 75:5 76:2	135:24 253:5	<b>faculty</b> 155:3,13 170:2	288:13
157:20 165:2	76:11,24 81:1,11	Extraction 251:4	fail 295:14	<b>faster</b> 18:3
183:19 187:8,11	81:18 88:14 90:11	extreme 19:5	fair 9:17 11:15	fatal 261:2
202:11 213:21			13:11 16:22 22:3	fault 49:13
	90:22,23 93:3	<b>extremely</b> 141:7		
216:10,13,19	94:5 95:3 97:14	247:11	22:24 23:13 24:20	fax 1:20
217:5 224:20	97:17,23 98:14,16	<b>F</b>	25:9 26:17 28:13	fee 147:23 188:7,18
246:11 249:10	98:23 99:7,20	face 131:13 184:14	28:15,19 33:22	<b>feel</b> 29:2 195:11
255:18 267:2	100:6 101:1,14	1400 151.15 107.17	42:14 45:25 47:4	265:14
	-		-	-

# Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 89 of 114

Confidential - Subject to Protective Order

	_	_	_	_
feelings 252:3	153:23 215:5	floor 251:16 252:14	273:9 274:8	161:24 164:23
<b>feet</b> 97:11	216:5 220:18	<b>focus</b> 168:16	275:25 276:14	165:11 166:21
fellowship 155:11	244:18 280:8	246:15	278:4 280:11,20	170:21 183:25
<b>felt</b> 16:21 36:6,9,17	291:18	focused 158:1	284:7 289:18	188:9 191:14
46:22 47:9 51:13	<b>finds</b> 86:23	<b>folks</b> 158:19	291:4 292:17	197:14 199:14
72:18 87:25 91:15	fine 63:15 87:2	follicular 138:21	297:6	207:14 210:23
122:25 145:11	180:12	139:1	formatting 241:7	213:1 229:13
196:8 212:20	<b>finish</b> 131:5	<b>follow</b> 36:24 60:16	<b>formed</b> 184:11	247:3 248:5 249:8
241:8 258:18	finishing 155:11	188:3,3 212:7	<b>formula</b> 234:16	252:22 253:7
263:13 266:3	<b>fire</b> 190:2,14,15	<b>follow-up</b> 5:16 14:1	formulate 36:24	255:24
<b>field</b> 11:2 22:9,19	fire-retardant	48:14 91:23 174:5	formulating 145:7	<b>four</b> 36:3 65:15
30:15 38:5 112:4	190:1,15	209:16 210:16	145:14,24 160:7	85:12 93:25 94:3
237:20 263:12	<b>firm</b> 2:2 7:25 10:22	222:11 228:9,14	formulations 56:14	111:5,11 113:8
<b>fifth</b> 240:19	182:7 184:9	228:16 229:15	181:14	118:19 126:9,11
<b>figure</b> 17:17 232:18	222:13 266:22	230:25 231:4	fortunately 232:5	133:1 167:18
232:25	<b>first</b> 8:7 13:24	233:13 234:8	<b>forum</b> 275:3	185:11
<b>figured</b> 232:19	14:11 16:12 26:7	235:5 259:17,22	forward 252:8	<b>fourth</b> 80:25
<b>fill</b> 228:21 230:10	26:11,19,25 27:9	283:15 285:8	<b>found</b> 13:2 36:1	213:11 240:19
231:25 232:6	48:9 56:5 71:16	286:4 287:8	49:16 51:25 52:13	frankly 119:25
234:17 235:11	71:16 72:15 78:7	292:22	52:19 58:4 72:18	279:4
283:16	96:18,21 99:4	followed 213:2	72:25 75:1 78:10	free 78:25 195:11
<b>filled</b> 229:8 230:4	102:3 109:5 119:8	following 150:14	78:15 94:10,17,20	<b>frequency</b> 3:6 12:6
230:17 232:17,21	141:13 146:23	218:18	104:15 105:13	12:20 13:3,15,24
232:25 233:6	147:13 148:10	<b>follows</b> 8:8 280:2	109:7 110:14	17:7,21 18:19,22
<b>final</b> 280:14	154:16 156:1	282:23	125:24 130:8	20:22 21:1 23:21
<b>finally</b> 122:20	157:12 159:11	footnote 21:6	139:20 140:12	35:23 36:3 70:7
financially 294:15	179:24 185:9	107:25 238:3,5	160:15 166:9	132:1 174:6
<b>find</b> 18:22 34:11	186:23 188:25	287:23	182:13 198:17	frequently 23:23
35:9 36:13 47:1	189:19 202:12	footnotes 121:25	212:23 223:20	246:19
52:15 58:23 61:25	213:17 223:5	foregoing 297:4	227:19 228:6	friends 44:16,17
69:18 71:3 81:3	229:10 230:4,6,18	forest 5:3 28:2,3,8	256:13 258:2	front 9:18,23 63:6
100:9,23 167:15	243:13 245:20	28:10 44:20,22	260:1 262:7	189:8 261:25
257:17 285:18	248:25 250:23	45:12 48:18 49:18	263:23 267:6,10	266:16
<b>finding</b> 17:15 19:8	254:6 256:1	49:20 50:15 58:1	267:15	full 48:21 68:2
55:25 69:8 79:2	262:24 264:16	58:6,11,15 59:13	foundation 11:24	72:15 191:10
81:13 126:2	265:19 278:11	59:15 74:2 83:21	26:10 29:18 33:25	251:13
255:22 258:4	279:22,25 280:2	83:24 92:5 110:4	35:18 36:20 39:4	full-time 54:11,23
263:2 264:21	287:20	<b>forget</b> 96:7 106:19	40:6 52:4 54:14	<b>fully</b> 9:17 243:15
<b>findings</b> 15:4 17:8	five 65:15 85:12	115:9,10	54:25 55:8 56:4	244:6
18:9,13 19:21	111:5,11 155:18	form 13:1 14:20	56:17 57:21 58:8	fumes 3:22 169:18
23:7 69:13,15	166:25 168:1,1	15:12 16:23 20:8	65:1 82:1 94:13	Fumigant 4:24
70:17 71:5,7,19	185:11 189:8	22:17 23:14 24:15	94:19 98:3 112:10	225:19
78:18 88:13 91:22	204:7 230:13	25:10 29:17 32:20	113:13 114:11	fund 248:3,9,13
94:16 99:13	flaws 130:11	34:13 38:7 40:6	144:8 149:16	fundamental 60:16
104:24 105:1	189:11	47:7 62:18 102:24	150:21 151:12	99:8
106:2 126:7	flip 257:15	110:17 210:13	152:14 153:18	funded 56:2 59:14
140:10 141:13,14	<b>float</b> 196:3	231:25 232:1	154:1 159:10	funding 56:8
	=	=	-	-

T 111 121	<b>5</b> 0 4 <b>55</b> 4 6 0 <b>2</b> 4 0	211211212	1 ,,,,,,	01.7.001.0
Fungicide 4:24	70:1 77:16 82:10	214:3,4,10,12	goal 172:24	81:7 221:3
225:19	121:10,11 124:7	216:7 218:5,10	goals 151:7	greater 68:17,19,21
fungicides 225:7	129:4 142:3	219:5,8,9,10,15	goes 78:21 103:20	68:22 69:6 95:10
<b>further</b> 254:21	257:16 272:24	219:19 220:13	107:18 156:14	100:2 130:14
271:25 292:20,21	given 175:18 230:7	223:15,20 224:17	239:17,19	139:13 140:14
294:11	230:12 241:22	224:22 225:24	<b>going</b> 9:9,24 10:17	greatly 251:14
G	246:1 258:6	226:1,4,7 229:11	10:20 11:11 18:3	252:12
	266:15 267:7	230:3,21 232:2,4	18:4 34:21 41:13	Greenland 269:23
G 2:18 7:1	294:11 297:5	232:8 246:18	45:6 47:1 63:10	gross 247:5
garden 70:24	<b>gives</b> 79:18	251:20 252:2	63:19 81:8 83:10	<b>group</b> 26:14,15
gardeners 192:6	<b>giving</b> 19:24	255:8,17 269:15	83:20 97:2 101:25	156:3 160:15
gather 90:23 280:6	<b>Global</b> 3:23 171:3	274:6 281:12,13	106:6,13 109:24	177:13 188:17
gee 136:8,20	<b>gly-</b> 81:8	285:25 291:13,21	113:18,18 118:12	189:10 212:4
Gelman 269:21	<b>glyphosate</b> 3:12 4:9	292:15	125:2 136:7 146:6	265:22
gene 157:14	5:24 11:6,18	Glyphosate-Exp	147:16 148:3	groups 3:10 4:3
general 8:17	42:18,21 49:4	4:16 201:4	150:16 151:18	43:10 71:2 119:4
163:22 188:2	52:1 56:1,8,14	<b>go</b> 10:17 11:11	162:7 169:14	120:15 189:13
205:24 206:4	67:22 68:1,13	14:10 16:10 17:6	173:21 174:22	202:9 203:25
233:16 244:8	69:7 72:19 73:4	26:3 30:14 41:8	176:9 190:13	<b>growing</b> 247:16
246:23 253:13	78:11 80:7 81:1,9	45:19 48:15 60:23	191:9 197:19	guess 15:18 16:5
265:14	81:11,20 83:12	61:2 63:7,11 74:1	198:12,14 204:9	72:5 155:12
generalizability	86:20 92:13 94:11	77:22 88:25 90:3	207:2 219:8 221:4	174:18 175:11
202:6,17 203:21	95:3,6 99:24	92:4 102:16	232:3,16 233:19	219:3 229:7
generalizable	100:3 101:7,9,14	106:15,25 108:5	235:9 239:8 242:6	239:13 250:18
203:4,7 204:1,17	103:2 113:2 114:4	108:12 109:16	242:9,11,20 245:9	guessed 231:6
generalization	121:8,11 123:10	110:6 112:18,19	246:9 248:12	guessing 231:8
247:5	123:21 125:8,9,17	113:17 124:6,8	256:16 261:4,8,18	guideline 169:4
generalizations	130:2,8 138:5,19	125:3 128:3 131:4	267:25 272:8,17	guidelines 168:8,11
259:9	139:9,20 140:6,13	134:2 137:23	275:5,12 293:1	168:20 169:2
generalize 206:9	140:14,15,18	138:2 139:24	<b>Goldie</b> 171:19	guy 2:3 115:5
generally 11:13	143:3,7,10 144:18	141:19 142:25	Golkow 1:19 2:19	136:20 174:19
22:8 29:11 57:1	147:6,18 150:9,18	154:16 162:4	7:5	Guyton 280:3
71:8 82:20 93:21	151:8,24 152:6	173:3,12 175:6	<b>good</b> 7:16,19 8:11	
94:8,9 164:15	153:24 155:19	178:2 179:22	8:12,25 10:5,11	<u>H</u>
225:1 226:15	156:2,8,13 157:3	180:16 181:10	14:25 40:16 88:1	H 2:18 3:4
255:3	157:14 159:14,22	186:2 187:3	146:12 163:13	Hairy 6:7 76:4
generate 129:9	160:15 161:5,20	188:14 192:20	191:10 198:12	half 155:16 261:5
generating 128:21	163:18 175:16	195:10 198:12	229:7,23 234:18	268:2 280:1
genetic 20:15	176:4 177:14,21	202:14 207:19	257:18 272:15	halfway 89:3 91:5
genotoxicity	178:12,19 179:1,9	208:21,23 221:18	<b>Google</b> 244:16	98:13 171:23
198:20 199:4	179:13 180:4,10	222:23 223:2,14	gotten 40:3 179:24	223:16
206:15,23	181:13 183:23	237:6,21 238:10	government 67:16	hand 39:16 197:19
getting 30:13 87:25	186:1 202:20	251:12 252:4	graduate 30:9	273:1 279:5
266:22	203:13,15 204:3,5	256:11 267:20	graduates 44:12	280:25 294:18
ghollingsworth@	204:10 207:23	272:6 275:16	<b>Grant</b> 2:10 7:20	handed 64:12
2:11	208:7,20 209:3,15	276:21 282:6,7,12	<b>graph</b> 72:15	handing 13:20 49:1
give 17:17 65:7	210:1,5 213:14	288:19 289:3	<b>Great</b> 9:20 10:6	75:23 111:7 120:8
	l	I	I	ı

	1	·	·	
134:21 145:1	health 3:22 4:6,17	herbicides 42:9,17	<b>Holland</b> 4:13 198:2	131:24 132:4
175:6,22 176:8	4:24 5:2,7 6:2	78:9 99:21,23	Hollingsworth 2:9	257:10,24 260:8
195:11 227:18	13:25 30:10,14,15	115:10 121:4,7	2:10 7:20,21	hypothetical 32:10
238:7	36:14 38:13 43:1	129:11 194:6	10:21 49:8 68:2,6	39:20 61:10 62:2
<b>handle</b> 194:6	43:1 44:13 47:6,9	212:12	96:15,24 97:4	100:22 114:21
<b>handling</b> 231:2,10	47:16 59:5 66:23	hereto 294:15	145:4 146:22,24	115:17 190:4
hands 167:23	101:23,25 119:24	hereunto 294:17	147:2,3 176:20	191:3
251:17 252:15	119:25 122:6	<b>Hernan</b> 270:3	182:7,9 184:5,9	hypothetically
<b>happen</b> 62:16	124:19 132:24	heterogeneous	186:17 222:13	100:17 234:20
132:12 217:10	148:20,22 149:7	247:11	238:20,24 239:8	
happened 193:13	152:9 153:1,16	<b>hide</b> 117:18	266:22	I
happening 99:12	154:22,24 159:21	<b>hiding</b> 261:17	home 70:24 192:6	IARC 3:15,18 4:5
happens 24:17	160:4,6,12 161:1	hierarchal 86:16	276:21	4:10,11,18 40:25
25:25 79:15 132:6	161:13 164:6	87:16,20 92:12	honest 9:25 10:2	41:1,6 112:8,12
132:11 235:21	169:17,23,25	106:16	honestly 15:20	137:12,13 138:14
<b>happy</b> 151:3	170:5,18,25 171:9	hierarchical	60:21 72:7 93:22	138:17 140:18
hard 45:14 167:2	171:12,13,15	106:18,19 107:11	112:12 166:25	148:10,12 149:12
<b>Hardell</b> 6:6 51:1	172:18 173:25	108:24 109:12,18	167:25 168:25	149:13 150:1,5,10
75:19 76:2,9	174:3,4,24 175:2	high 11:22 12:15	hope 47:3 272:19	150:12,18,19
77:22 78:2 80:12	175:10 185:4	12:24 20:7 61:4,7	<b>Hopefully</b> 167:6,7	151:2,7,9,19
83:21,25 84:5	187:25 191:10,20	70:4 131:15	<b>Hoppin</b> 270:5	152:2,12,20,25
92:13 122:12	192:5,14,25	181:21 226:15	Hospital 66:24	158:6,13 160:15
269:24 270:1	194:11 195:3,20	high-volume	<b>hour</b> 63:10 147:24	170:5,18 172:5,18
harder 34:18	200:11,25 201:5,8	210:19 211:9	261:5	173:4,11,14 176:5
<b>Harvard</b> 3:16 4:6	202:8,19 205:21	higher 193:2	hourly 147:23	181:2,3 183:22
44:12 148:18,20	205:23 207:20	194:12 197:2	148:2	184:13,14,23
149:1,4,7,13,23	221:22 225:20	204:11 206:2	hours 11:12	185:5,24,25 186:6
152:8 153:1,15	227:15 248:16	220:5	<b>HPV</b> 3:24 171:4	186:9,10 187:5,11
154:7,21,24 155:5	250:15,16 271:15	<b>highest</b> 36:2 130:1	172:21	187:21 188:4,6,20
155:9 156:14	279:9 284:15	204:6	<b>HS</b> 181:24 194:23	189:12 212:2,7,23
169:23,24 170:4	286:22 287:2	<b>highly</b> 263:20	224:4	213:3,5,7 223:20
170:17,25 171:10	heard 171:16 242:1	hinder 209:2,7	<b>human</b> 42:25 43:1	223:20,23 259:13
171:11,12 172:4	248:3	hindered 209:17	161:6,20 163:18	263:23 265:20
172:17 173:25	hearing 41:22 64:5	hired 130:22	167:23 177:16	266:4 270:6
174:2,13,23 175:2	173:17	histological 138:7	178:12,18 179:2	271:12 291:22,25
185:11 189:9	held 1:11 7:8	histopathological	179:10,13 180:10	IARC's 150:22
250:2,16 254:4	103:13	6:12 93:5	181:15 186:1,5	151:22 153:23 156:11 177:20
279:9	Hello 272:16	history 20:14 74:13	199:17 265:22	
hazard 17:24,25	helpful 102:13	186:9 247:14	266:13	178:1,17 179:11
18:18,25 43:1	Heltshe 284:24,25	hit 97:11	humans 4:12 156:9	266:1,10 idea 34:1 35:19
186:5 189:12	286:13,17	HLLP 147:1	178:10,24 180:25	
264:17,24 265:5,8	hematopoietic	Hodgkin's 28:23	181:6 184:25	43:3 73:13,17 96:20 119:11
265:11	109:6 248:23,24	Hohenadel 270:4	185:7 187:6	231:14 232:23
Hazards 4:11	249:2 250:2	hold 32:15 42:15	206:25 212:4	233:9 249:13
184:25 185:6	herbicide 69:4 81:9	273:25	213:13 265:22	identification
head 102:13 103:24	113:20 212:3,14	holdout 284:20	humans' 156:3	13:17 43:13 44:24
112:7	213:12	holds 262:17	hypothesis 19:4,12	13.17 73.13 77.24
	•	•	•	•

49:7 64:10 76:6	194:8,10 201:21	<b>including</b> 6:12 93:4	<b>INDEX</b> 3:1	ingredients 3:10
85:6 93:6 110:24	207:17 211:3,8	109:5 110:10	indicate 50:6	4:3 43:11 112:24
119:6 134:9	212:11,13,16	126:13 155:19	102:19 106:23	119:5 120:15
144:20 146:10	220:19 234:10,13	181:10,24 189:8	indicated 50:5	inherent 258:16
152:22 154:9	257:7,17 258:6	218:5 283:7	101:9 114:7 255:7	initially 275:20
158:16 165:21	262:5,17 263:7,23	inclusion 71:4	285:24	initials 66:18
169:20 171:6	266:1 267:24	incomplete 32:10	indicates 86:20	148:14
173:7 175:4 176:6	291:23	39:20 61:9 62:2	206:13	injuries 147:5
185:1 186:5 198:7	importantly 123:12	100:22 114:21	indicating 81:6,17	248:10
201:6 213:9 222:8	124:10 291:20	115:17 190:4	140:4 210:10	injury 115:13,14
225:21 227:16	impressions 242:10	inconsistent 237:5	indicative 15:4	115:15 190:14
243:6 248:19	improperly 130:11	incorporate 229:1	indicator 109:2	Insecticide 4:23
250:11 254:12	<b>improve</b> 187:24	231:4	individual 40:9,14	225:18
256:21 259:23	imputation 231:3,8	<b>incorrect</b> 17:10,12	46:11,25 52:9	insecticides 121:4
264:8 267:4 273:8	233:17,24 235:24	87:14 181:25	60:24 68:14 116:2	225:7
277:18 286:24	283:24 284:2,10	253:9	123:15 124:13	instance 101:21
<b>identified</b> 8:7 114:3	284:18 286:12	increase 18:24	129:19 130:17	103:23 205:21
114:13 256:2	inaccurate 103:10	48:10 77:6 84:18	144:1 249:12,24	228:13 234:3
275:8 276:7	181:23 243:16	87:22 88:3 105:15	253:3	244:13
<b>identify</b> 7:14 13:21	244:7	114:16 115:14	individually 46:11	instances 89:8,19
43:16,18 146:19	inaccurately 60:15	116:13 117:11,22	51:15	272:24
208:9 224:22	inappropriate 60:7	251:14 252:12	<b>induce</b> 157:14	Institute 66:15
275:23 276:12	<b>incidence</b> 4:16 86:9	255:14	indulgence 41:12	166:2 270:10
277:20 286:19	107:17 201:3	increased 4:20	infectious 168:17	institution 185:16
<b>III</b> 2:10	260:10,24	39:17 51:25 52:16	168:19	instruct 38:15
imagine 37:22	<b>include</b> 46:7 54:4	55:25 104:10,21	inferences 126:11	INSTRUCTIONS
102:1 272:5	78:21 95:7,14	114:8,18 127:8,20	209:2,7	295:1
immediately	103:18 122:9	128:6,24 129:12	influence 164:20	<b>Integrative</b> 6:9
271:18	123:8 142:17	140:4 156:15	167:10,12 203:17	85:2
<b>impact</b> 91:21 99:13	171:24 208:18	157:2 194:14,14	251:1	intellectually 9:25
141:3 226:18	225:24 226:6	208:8,13 222:4	influenced 124:21	10:2
imperative 295:11	236:22 237:5,13	255:7 259:4 260:2	influential 141:7	intense 283:4
implausible 132:4	262:15 285:25	260:9,10,18,24	145:9	intensity 211:15
implement 16:20	<b>included</b> 21:3 52:9	263:3	information 19:25	281:23 282:2,3,5
implicate 254:23	57:12 58:10 60:8	increases 255:12	20:1 43:19 70:1	282:13,19,23
implications 258:7	62:23 70:23 91:13	263:18	70:22 76:24 90:20	intensity-weighted
importance 22:13	105:25 109:2,15	increasing 73:22	90:24 95:22,24	211:20,24
167:24	121:19 123:10	73:23 250:24	145:14 153:23	intents 202:21
<b>important</b> 19:22,24	161:2 169:6	incredibly 35:1	196:18 217:8,17	interaction 118:4
24:12 29:24 36:6	195:24 196:1	independent 41:7	226:2,5,7,16	176:19 203:2
36:9,18 41:8 44:8	200:15,22 210:14	46:23 118:8	229:2,6,6 230:25	interest 29:1
46:22 51:14 53:18	210:17 226:1	119:16 129:9	231:5,15,17,20,20	interested 38:10
61:23 69:22 83:3	228:5 236:25	145:10,24 170:7	232:3,9,13,17	58:25 61:21,21
109:7 123:7	252:5 278:11,20	214:19,22 215:23	233:23 234:5	75:6,9 82:5
125:24 145:11	286:3	292:13	244:25 249:14	294:15
159:12 160:7	includes 201:16	independently	257:18 258:18	interesting 20:10
163:25 192:22	287:1	290:25	262:17,20	29:19 209:19
	<u> </u>	I	<u> </u>	<u> </u>

<b>interim</b> 236:12	inverse 13:2	January 166:3	<b>Kathryn</b> 149:21,25	129:16 130:12
internal 16:15,21	inverse 13.2 investigate 253:9	167:8	259:12,12	131:7 135:8,19
46:8 51:18 52:21	266:6	<b>Jeff</b> 7:24 221:14	keep 31:19 32:2	136:20 137:6,13
58:10 59:1 60:8	investigated 69:4	Jeffrey 2:4 64:1	63:6 90:8	138:14 140:25
62:7 69:13,15	126:14 193:3	Jennifer 1:10 3:2	<b>Kenneth</b> 31:6	144:5 148:12
87:4 88:1 100:13	220:6	5:14,20 7:13 8:6	258:24	149:19,22 150:17
105:12 110:13	investigators	9:3 256:20 273:6	kept 49:12	152:8,16 153:8
121:20 160:1	171:19 217:8	292:25 297:9	Kim 171:19	158:19,24 159:14
202:13 206:10	investigators'	<b>job</b> 53:7	kin 90:23	161:2 163:23
208:15 252:7	237:16	<b>John</b> 54:5,8	kind 9:22 10:20	171:18,21 173:1
256:11 257:19	invite 22:1 25:3	<b>join</b> 180:17	48:22 67:16 192:7	173:19 174:1,12
international 5:5	invited 65:5 149:25	joined 63:25	245:18	173.17 174.1,12
93:10 94:1 99:19	150:3,4,6	journal 5:5 21:15	kinds 38:4	174.21,21 173.11
119:23 132:23	involve 147:13	21:18,20,25 22:14	knack 10:7	181:21 184:8
148:15 155:20	involved 72:8	23:15,16,24 24:4	knack 10:7 knee 41:11	185:14,15 191:9
171:25 187:7	148:1 150:10,12	24:24 25:6,8,12	knew 68:8	191:10,23 192:22
189:10 241:24	183:19 194:3	25:12,13,13 37:23	know 9:14,23 10:1	191:10,23 192:22
242:21 243:2,25	228:5,7 274:17	55:18,20,22 64:19	12:11,18 13:8	190.10 197.4,8
interpret 69:22	involving 147:5	65:4,6,11 68:10	17:1 19:3,19,22	202:11,21,24
88:2 99:12 128:19	265:21	77:23,24 78:1	17.1 19.3,19,22	202.11,21,24 203:11,14,15
209:11	Iowa 201:15,24	79:14 82:9 85:18	22:15 23:1,11,24	203.11,14,13
interpretable	irresponsible 15:7	85:19,21 93:11,11	26:20 29:1,25	204.2,4,6 203.3
212:22 215:5	issue 40:25 76:11	93:13,15,18 94:1	31:24,25 32:25	208:14 210:18
212.22 213.3	79:25 90:19 94:4	94:1 99:19 111:17	33:1,3,4,6 34:6,16	211:1,8 212:2
interpretation	97:5 101:7 120:12	111:21,22 119:23	35:1,3,4,6 34:6,16	213:20 214:9
104:25 180:3	138:10 142:21	,	38:14 40:9,12	220:2 224:13
258:3 289:5	150:14 166:11,15	120:2,4 130:20 132:23 167:20	· · · · · · · · · · · · · · · · · · ·	225:25 232:10
interpretations	175:17 198:23	241:25 242:22	44:11,14,15 45:7 52:24 53:1,3,9	235:8 237:19
23:7	204:23 234:7	241.23 242.22 243:3,23,25	, ,	238:17 240:1,7,22
interpreted 98:6	236:10,20 242:4	243.3,23,23	54:8,17,22 55:1,4 55:11 56:15 57:10	241:1,5,11,18
118:21 258:19	256:1 257:6 260:1		57:23,23 60:5	243:20 247:7
interrupt 14:4	issues 47:24 48:1	<b>journals</b> 5:6 22:5,5 22:13,17,18 23:16	61:12 62:15 64:16	248:8 249:12,23
_		, ,		,
162:3 interrupted 131:4	48:14 87:4 91:18 97:16 99:10	26:6 53:19 80:13 130:25 242:23	65:2,24 67:17	249:24 250:13,18 250:21 252:23
interrupted 131:4 interval 74:5 78:20	110:20 126:12		69:1 72:23 74:15 74:18 75:13 80:20	
83:23 84:4,7		243:5	81:16 85:16,17	253:13 254:6,17
,	137:1 142:22	JRM 66:18,19	,	257:3,23 261:22
92:10 95:7,14	164:2 170:18 217:9 252:7	jtravers@millerl	89:21 90:6,8,13	266:20 267:23 268:4 277:1 286:6
103:9,18 110:11		2:5	90:15,16 91:7	
121:16,22 208:17	255:25 266:9	judge 167:2	94:15 99:9,10,11	290:6
257:16 262:13	item 130:1	<b>jump</b> 63:9	104:4 110:14,18	knowing 115:2
intervals 19:23	items 114:19 130:1 175:20	jumped 138:2 June 185:5	111:24,25 112:11	227:25
28:7 69:10 120:22			112:12,15,16,19	knowledge 294:8
209:22	<b>IV</b> 244:23	jury 9:18 18:14	114:1 115:5,7	known 109:4
interview 193:12	$oxed{J}$	136:8	117:7 118:9	
introduction 84:10	$\frac{\mathbf{J}}{2:3,10}$	K	119:12,24 120:10	laboratory 178:10
187:4 265:19	Jan 171:19	Kana 173:24 174:2	123:16 124:18	178:25 180:25
invalidate 151:9	Jun 1/1.1/	114114 1 / J. 2 T 1 / T. 2	127:21,25 128:13	170.23 100.23
	•	•	•	·

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 94 of 114

Confidential - Subject to Protective Order

181:6	76:20 84:15	265:16 272:6	light 69:23 70:16	121:9,13 123:6
lack 52:21 60:8	115:22 159:1,2	273:2 277:14	209:11 237:19	153:6 160:10
160:1	214:15	283:21	291:22	161:15 230:20
lacks 26:9 29:17	lead 26:6,18,21,22	Let's' 264:2	likelihood 108:23	269:9 278:24
33:24 35:17 36:19	57:18 243:16	lethal 260:10,13,20	limit 62:15 253:11	285:6
39:3 40:5 52:3	244:6	262:12	limitation 195:23	lists 78:14 248:22
54:13,24 55:7	leading 249:14	letter 3:14 96:3,5	196:9	literature 36:7
56:3,16 57:21	leap 15:3,8	131:17,20 132:15	limitations 16:25	40:21,24 44:10
58:7,9 64:25	learn 38:2 148:10	132:22 133:7	46:24 69:19,23	46:18 47:19 68:3
81:25 94:12,18	163:25 172:10	146:9,21,24	70:4,6,8,10,17	79:17 131:2,10
98:2 112:9 113:12	191:19	175:15,17 176:8	75:15 84:12	132:14 147:18
114:10 144:7	leave 132:20	176:23 177:11	125:24 131:14	151:17 152:6
149:15 150:20	leaves 219:24	178:3,15 181:9	157:4 181:22	158:1 179:13
151:12 152:13	lecture 167:24	letters 79:11,13	195:6 196:10,14	182:10 209:24
153:17,25 159:9	168:2	91:25 92:2 132:7	208:22 209:1,6,10	214:8 224:13
161:23 164:23	Lee 270:8	132:17 133:3,12	209:12 266:15	246:18 251:19
165:10 166:20	left 50:3 72:15	132:17 133:3,12	limited 46:6 242:2	267:13 282:22
170:20 183:24	80:20 89:3 91:6	letting 196:3	limits 87:13	290:22 292:12
188:8 191:14	legal 31:14	leukemia 6:7 76:5	lindane 4:19 213:8	<b>litigation</b> 1:4,19
197:13 199:13	<b>Leon</b> 3:8 119:2	77:23 252:19,24	line 41:18 49:21	7:10 147:5 148:1
207:13 210:22	125:4 130:21	253:2	50:4 163:6 164:15	little 9:22 18:4
212:25 229:12	133:8 271:3	leukemias 248:22	221:13 225:2	20:11,18 33:1
247:2 248:4 249:8	let's 13:12 14:10	level 38:18 40:10	296:3 298:2	52:7 58:19 142:3
252:21 253:6	17:6,16 18:17	47:10 98:24	line-by-line 10:18	167:2 168:13
255:23	22:11 35:22 42:4	198:19 199:4,18	linkage 217:20	202:23 228:12
<b>Laden</b> 185:13	45:17 48:17 54:3	206:15 232:14	228:17	257:21
Lancet 280:8,14	63:7 74:1,15	249:24 282:23	linking 254:21	live 261:7
<b>Lane</b> 1:12	75:19 77:22 80:3	283:5	links 3:22 169:18	LLC 2:2
language 124:9	84:21,22 88:25	levels 73:21 193:1	list 3:15,18 4:5 5:19	<b>LLP</b> 1:11 2:9 7:21
large 20:24 209:14	92:15,22 94:25	194:12 204:5,11	5:22 65:19 78:13	10:21 96:24
larger 89:16	97:11 98:9 102:16	220:5,6 282:14,19	78:20 95:6,13	load 129:25
<b>Lash</b> 270:7	106:25 112:18	<b>Liability</b> 1:3 7:10	113:1,4 123:7	logistic 86:15,17,19
late 168:23	113:17 118:22	license 193:14	127:18 152:21,24	86:22 87:20 92:12
latency 5:8 95:10	120:24 125:3	200:16,19,22	158:6,9,12,14	106:16,20,23
95:16 143:4	126:23 134:2,18	217:25 232:1	169:2 173:5,11	107:2,11,13 108:7
181:24 220:11	137:23 148:10	licensed 193:7,17	176:22 182:2	108:23 109:9,14
248:13,17,24	154:16 155:14	193:20,22,24	222:16 249:14	long 39:5 49:21
249:5,9,15,20,23	158:3 162:6	194:2,4,23 196:25	266:19 267:3,19	63:11 90:16 162:4
253:3,11	165:15 170:24	197:3 200:13	267:21 271:12	193:19 234:5
law 10:22	173:3 185:23	201:17,22 202:2	275:17,18 276:2,6	235:9,24 267:14
lawn 251:17 252:15	186:2 188:14	202:10 204:14	277:11,18,23	276:3
<b>LAWYER'S</b> 298:1	194:20 197:18	205:8,11,15 208:3	278:9,10,12,14,16	longer 48:13 141:9
lawyers 9:10 96:22	208:21 221:12,18	licensing 193:12	278:17 279:1	203:3 246:25
lay 75:10 231:13	222:2,18 223:2	197:9	285:5	look 17:13,15,19,20
laypeople 148:23	225:13 227:5	life 253:5	<b>listed</b> 28:23 43:20	22:4,22 48:17
192:5	228:22 242:3	lifestyle 208:12	65:18 68:24 94:3	51:15 54:3 55:24
layperson 72:5	251:9,11 259:11	231:19	99:25 103:3 107:7	60:24 63:3,7
	l		l	l

70:21 71:15 73:22	138:10 143:15	76:4,13 77:24	237:21 238:1,10	227:12 239:9
74:3,15 75:19	151:2 177:11	81:2,12 83:13	239:13 244:20	242:6,9,13 250:5
77:16 78:6,24	188:16 189:18	85:5,25 86:9 93:4	machine 32:2	273:2 277:14
82:10 84:21,22	202:13 220:20	94:6,11 101:8,10	40:15	286:18
87:1 89:2 91:5	245:5 257:2	101:15 102:20,23	machines 32:1	marked 13:17
101:21,25 102:14	264:19 265:12	102:24 103:2	163:15	43:12,15 44:24
105:20 106:25	266:12 287:24	107:17 110:22	magic 163:15	48:20 49:7 64:9
107:2 108:15	looks 154:20	112:22 113:11	main 17:15 224:20	76:5 85:5 93:6
110:19 119:9,14	159:22 239:14	114:9 119:3	264:21	110:24 119:5
120:24 121:8	Lorelei 14:2	120:13 121:5	major 25:16 91:18	134:8 144:19,23
124:7 126:23	loss 228:9,14,16	125:10,18 127:12	138:6 141:23	146:6,9 152:18,22
128:3,13 133:10	233:13	130:2 138:6,20,22	142:11 187:23	154:5,9 158:15
137:20 139:5	lost 210:3	139:1,13 140:5,13	195:22 196:8	165:20 166:6
154:4,11 155:14	<b>lot</b> 24:17 26:14	140:16,20 144:19	making 38:2 57:1	169:19 171:5
158:10 165:15	175:18 186:21	156:10,16 161:21	84:22 104:25	173:6 175:4 176:5
170:24 173:11,14	239:15 259:10	175:17 207:12	261:22 262:18	185:1 197:19
176:21 183:15	<b>lots</b> 130:10,10	208:5 210:13	265:14	198:6 201:6 213:9
185:23 192:20	177:10	214:23 219:14	manuscript 3:11	222:7 225:20
193:1 194:25	<b>low</b> 19:17 100:6	222:22 224:5,18	5:17 21:22 25:4	227:15 242:21
197:18 200:23	131:15	225:18 227:14	26:12 27:24 47:22	243:5 248:18
202:14 208:16	low-level 250:25	230:19 246:12	48:9 54:7 57:13	250:11 254:11
211:19 214:24	low-volume 210:20	249:1,6 251:21	57:15 134:4,8,14	256:17,20 259:22
215:24 216:13,19	211:10	254:3,11,22 255:4	134:18,19 143:24	261:24 264:7
216:24 222:2,18	lower 11:23 73:21	255:12,14 261:2	218:23,24 228:6	267:3 273:1,7
225:13 226:13	199:10 213:13	268:14 270:11	236:21 240:16,17	277:18 285:13
227:5 236:24	Lu 250:18	271:6 274:7	240:18,20 241:3,6	286:23 287:6
237:2,11 238:15	lunch 146:13 162:6	286:21 292:16	241:19,23 242:14	288:1 289:9
242:3 243:13	163:13 261:5	lymphomas 248:23	245:7,11 264:5	market 143:3
248:21 251:3	luncheon 162:9	251:5	270:21 275:4,11	255:9,17
255:18 257:4	<b>lung</b> 3:19 33:10,14		285:24 286:15,25	marketer 56:14
259:11 264:2	33:21 34:3,21	<u>M</u>	287:7 288:9	marking 195:12
265:16 272:25	39:2 100:18	ma'am 11:10,20	289:12,20,22	Massachusetts
287:12,14	116:10 117:23	12:5,8 13:22 17:5	290:12,16,17	1:12 7:9 294:1,5
looked 27:9 110:16	164:13,25 165:9	17:18 18:11 24:11	291:1,16 292:2	master's 30:14
114:4 118:12	165:18 168:5	25:22 30:6 32:24	manuscripts 5:6	matching 104:6
119:17 122:16,20	lymphocyte 4:13	36:5 42:24 43:17	47:20 164:10	materials 5:19,22
122:23 125:8	197:20 198:3	47:14 50:9,17	242:23 243:4	158:4 175:19
126:3,16,17 151:3	lymphohematop	53:16 56:2 66:21	244:25 268:10	176:22 182:2
160:22 163:16	5:25 49:6	71:7 72:2 73:16	287:22	186:20,21 201:11
167:1 168:2	lymphoma 3:8,13	73:25 75:21 77:7	<b>March</b> 155:4,8,17	222:17 246:5
189:11 199:17	4:1,23 5:1,13 6:1	78:12 83:19 94:24	238:22 239:14,16	266:19 267:2
229:19 263:14	6:4,7,10,12,14	98:8 102:21 103:2	239:16	271:22 275:17,18
266:4,9 281:12,25	11:7 28:20,23,25	104:13 110:2	margins 240:8	275:23 276:3,4,8
looking 18:20 35:4	29:5 32:16 40:18	125:14 142:6	289:21	277:7,11,17,22,25
51:8 72:14 77:4	42:6,18 43:8 52:2	155:14 156:4	mark 13:12 44:19	278:8,10,11,15
78:19 86:7 90:15	56:2 62:19 64:8	165:24 168:8	45:17,18 169:15	285:5 290:23
95:2 135:25 137:6	67:21 71:20 72:20	171:10 210:9	171:1 200:24	292:3,8
L	•	•	•	1

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 96 of 114

Confidential - Subject to Protective Order

math 103:24	49:24 50:10 51:17	18:23 20:25 64:9	meta-risk 121:10	53:6,11 54:1,19
229:23	87:23 97:20	85:5,25 202:25	123:1 128:14	55:3,13 56:10,19
matter 9:23 82:23	100:10,19 128:18	264:6,12,22	129:6,15,25	57:2,7,16,22
183:20 200:2	129:7 174:19,20	mention 263:7,14	method 77:5 231:9	58:12,18 59:2,10
207:10	177:2,5 214:15	mentioned 26:7	231:13 282:24	59:18,22 60:2
<b>Maureen</b> 1:14 7:23	256:18 283:3	30:19 106:20	284:19 286:14,16	61:1,14 62:8,17
8:3 294:3,21	meant 18:16	140:24 155:2	methodologic	63:13 64:1,4,11
maximum 108:23	166:23 228:12	159:16 179:11	69:20	65:20 66:2,9
<b>McDuff</b> 64:13	measles 74:12	194:24 217:4	methodologies	67:19 68:4 70:3
122:16	measure 211:14	246:7 266:2	86:15	70:19 73:1 75:7
<b>McDuffie</b> 6:3 51:3	220:3 234:3	269:19 274:16	methodology 29:15	76:7 79:24 80:2,9
64:7,14,15,16	measured 234:5	283:21	284:4,10,12	80:17 82:2 83:8
66:10 70:20 74:3	measurement	mentor 149:8	methods 11:5	83:18 84:14 85:7
74:6 79:4 80:12	219:23 282:21	Merit 1:14	12:14 23:3 30:20	87:15 88:16 92:14
122:18,19 270:9	measures 50:1	messed 59:23	31:4 90:4 105:11	93:7 94:14,23
MCL 275:17	meat 173:10,15,24	messy 236:6,8,19	107:10 108:5,10	97:10 98:7 101:5
McLaughlin 66:20	mechanism 233:24	met 135:20 175:12	108:12 109:17	103:21 105:16
<b>MDL</b> 1:3 7:10	234:9,11,15	177:15 254:18	137:4 192:21	106:3,11 108:9
mean 14:4 15:20	mechanisms	meta-analyses 46:5	200:23 201:11	110:25 111:7,8
16:6 18:12 20:9	157:11 233:20	145:25 146:2	284:18 290:15	112:14 113:16,23
21:17,19 26:20	mechanistic 178:11	252:3,6 268:19	<b>Michael</b> 2:3 7:17	114:5,14,25
43:4 45:5,11 48:5	179:1 181:1,7	meta-analysis 3:12	micronucleus 4:14	115:20 116:8,15
58:4 61:13 71:7,8	media 243:14	4:4 5:4,11,24	197:21 198:4	116:21 117:1,10
71:10 72:5 73:11	244:4	43:12,25 44:2,5	<b>middle</b> 49:22	117:17 118:11
75:1 87:13 89:16	median 249:23	44:21,23 45:13,21	108:15,18 236:3	119:7 123:23
97:8 99:4 105:5,8	<b>medical</b> 5:5 30:8	45:23 46:1,2,10	282:8	124:5,23 127:4
115:24 117:2,19	36:7 167:21	46:13,16 49:4	<b>Mike</b> 8:14 41:19	128:10,23 130:18
124:4 126:19	241:25 243:2,25	51:7,16 52:6,10	146:11	131:3 132:19
127:21 130:6,9	247:22 249:19	52:19 55:15,17	<b>Miller</b> 2:2,3,3 3:2	133:5,13,19
131:12 142:14,24	medicine 66:11	56:6 60:5,6 69:25	7:16,17,17,25	134:10,17,21
144:6,10 150:25	85:20 111:15,20	77:12,13 84:5,11	8:10,23 12:1 13:5	135:2,7 136:6,15
154:20 176:25	247:24	92:11 106:1 110:8	13:12,18 14:23	137:5,22 139:2
191:15 193:12	meeting 138:17	119:8 120:17,20	15:17,22 16:2,18	142:5 144:11,21
196:13 199:8,24	158:10 174:10	120:24 121:19,24	17:4 20:6,19	145:19 146:5,14
204:22 206:24	271:13	122:16,24 123:5	22:10 23:19 24:19	146:16 147:11
209:19 216:18	meetings 150:15	123:11 125:4,22	25:21 26:5,16	150:24 151:13,25
233:17 245:17	174:4	125:25 127:3,18	27:13,21 29:8	152:17,23 153:7
247:7,10 276:11	member 152:12	127:22,24 128:15	30:5 32:5,14,23	153:12,21 154:3
283:2 292:6	153:2 154:23	128:16,21 129:10	33:16 34:9 35:12	154:10,15 155:25
meaning 52:7 69:9	155:13 170:2	129:17,21,24	35:21 36:16 37:3	156:7 157:5,22
121:21 245:21	members 149:12	140:15 144:5,12	37:17 38:8,24	158:18,25 159:7
264:22	149:13 173:23	144:15,17 145:9	39:7,13,21 40:11	160:5 161:7 162:5
meaningful 103:6	188:6,17	145:25 250:5,10	40:23 41:10,20	163:7,10,12
129:17	memory 268:1	251:24 252:8	42:3,8,13,23 43:5	164:11 165:3,6,14
meaningless 58:22	279:6	269:4,6 271:14	43:14,22 45:2,3,9	165:22 166:22 167:5 169:21
59:3,4 110:12 means 15:14 19:10	men 5:17 6:5,10 11:22 17:21 18:22	meta-analytic 121:3	46:19 47:13 49:1 49:11 52:11,23	
means 15:14 19:10	11.22 17:21 18:22	141.3	49.11 32.11,23	170:16,23 171:7

172:12 173:8,20	<b>Mine</b> 238:22	260:9,10,18,23	171:23 189:4,21	National 66:14
175:6,7 176:7,15	minimally 104:7	262:7	194:16,20 227:4	270:10
176:24 177:6	minimum 5:8	Molecular 3:20	242:5 262:4	natural 247:14
179:21 180:5,17	204:7 248:16	165:19	moved 155:6	nature 172:10
181:8 183:18	249:5,15,20,22	moment 8:13 90:1	moving 261:22	nearly 21:2 139:12
184:1,20,22 185:2	minor 25:16	129:5 270:23	<b>MPH</b> 4:7 175:4	necessarily 20:1
186:16 188:13	196:10 289:24	274:12	<b>Mucci</b> 14:2,6 96:8	necessary 133:2
189:2 190:5,10,17	minute 94:9 154:11	money 148:3	96:19,22 149:4	164:7 252:4
191:4,8,17,22	<b>minutes</b> 146:15	monitoring 4:14	264:11	255:21 274:14
192:3,17 193:15	misclassification	197:21 198:5	<b>Mucci's</b> 149:6	275:14 295:4
194:16,20,21	97:6,9,12,15,16	monograph 4:5,11	<b>multiple</b> 6:9 62:18	need 25:19 35:19
195:7,14,17 196:5	97:18,19,24 98:15	137:14,15,16,18	62:23 85:3,24	52:8 60:23 72:23
196:24 197:10,17	98:17,25 219:25	137:21 151:2	89:6 91:14 210:2	98:4 99:12 108:12
198:8,25 199:19	220:2,17 225:1	152:25 158:9	210:6,12 220:21	111:10 128:2
201:7 203:5 205:5	226:17	173:5,18,24	231:3,8 233:17,24	130:25 136:24
207:1,18 211:2,7	misclassified	184:24 188:20	236:22,24 237:13	144:9 179:15
211:12 212:10	196:19	213:5 270:6	multivariable 21:4	184:17 194:25
213:4,10,24	missing 45:14,17	271:13 292:1,5	195:24	209:10 215:4
214:13 215:11,20	231:3,10 233:24	Monographs 3:15	multivariate 17:25	216:4 241:5
216:12,16 217:6	233:25 234:2,22	3:18 4:19 152:21	18:18 104:2,11,15	242:14 272:18
217:21 220:23	235:1,2,3	158:14 185:5	104:20 106:2	276:21 285:18
221:1,9,14,17,20	missingness 233:20	187:5,22 213:8	mumps 74:12	<b>needed</b> 263:13
222:9 223:13	234:9,11,16	monotonic 19:1	mutations 157:13	needs 38:19
225:22 227:17	mission 53:10	Monsanto 2:13	myeloma 62:18,23	<b>negative</b> 12:15,23
228:1 229:17	misstates 145:18	7:21 8:16,19	210:2,6,12 236:23	226:21 261:19
231:11 233:2,5,12	145:20 156:23	10:23 54:12,23	236:25 237:5,13	<b>neither</b> 294:12
238:12,14,22	255:24 262:10	55:6 56:13 57:18		Neugut 135:19,20
239:1,3,6,10,11	misunderstood	59:15 62:25 68:7	N	269:18 278:19
239:12 242:8,16	127:16	96:10,23 130:23	N 2:1 7:1	<b>Neugut's</b> 135:17,22
242:19 243:7	mixing 282:23	133:15 146:25	N.W 2:12	136:8,14,24 183:2
247:6,18 248:7,20	<b>Mm-hmm</b> 49:23	147:3,5,13 173:9	Nabhan's 182:24	183:4
249:17 250:12,22	50:23 51:2,4	176:17 183:20	name 7:4 9:2 23:18	never 9:8 28:10
252:25 253:17	118:15 166:13,16	184:5,6,9,15	56:18 77:15	40:9,12 55:21
254:1,13 255:10	172:2 177:9 219:6	210:18,25	111:14,16 153:6	58:10 61:15 67:21
256:15,22 258:10	259:18 263:22	Monsanto's 151:7	171:12,21 221:25	67:25 77:25 82:17
259:24 261:6,13	275:19	<b>Monson</b> 185:13	254:16 271:11	85:21 96:5 132:14
261:17,20 262:16	mmiller@millerl	month 18:23 36:4	named 175:15	135:20 147:19,21
264:9 267:8,16	2:4	months 185:25	names 56:21	170:13 171:16,22
271:25 272:5,23	<b>model</b> 168:6,10,19	morning 7:16,19	Nancy 2:3 7:17	172:8,15 178:14
272:24 273:9,13	231:22	8:11,12 156:20	<b>NAPP</b> 3:11 102:9	207:24 210:24
274:8 275:25	modeling 109:12	motivation 220:14	124:20 134:2,5,8	218:4 219:4,9,12
276:7,14,20,25	235:24	motivations 60:5	138:8 139:6,17	219:15,17 230:21
278:4 280:11,20	models 109:1,10,14	mouths 251:17	141:24 142:12,15	232:2 240:15
284:7 289:18	232:13 233:10	252:15	143:19,20,23	243:19 251:24
291:4 292:17,21	284:21	move 47:2 92:15,21	161:9	254:17
mind 90:8 102:4,5	moderate 116:12	106:13 109:23	narrative 240:10	new 84:21 143:16
146:15	<b>modest</b> 34:17 259:5	118:22 158:3	narrow 22:11 80:3	161:19 168:6,10
			I	

168:20,22 171:12	94:11 101:8,10,15	77:6 121:13	43:2 46:14 47:7	197:5,13 198:24
172:20 237:1,6	102:24 107:16	125:13 126:12	52:3,17 53:5,8,21	197.3,13 198.24
248:10 287:25	113:10 114:9	132:13,15 136:13	54:13,24 55:7	204:20 206:19
news 198:12 229:7	120:13 121:5	140:14 142:21	56:3,16,23 57:6,9	207:13 210:22
NHL 33:2,6 40:22	138:6,20 139:12	180:1 181:22	57:20 58:7,17,20	211:4,11 212:5,25
42:21 48:6 56:8	140:5,12,16,19	184:21 198:13,14	58:20 59:8,17,20	213:15 214:5
68:1 80:7 81:21	156:10,16 161:21	240:5,14 244:23	59:25 60:19 61:9	215:8,15 216:11
100:15 109:4,8	175:16 207:12	248:22 255:6	62:1,11 64:25	216:15,20 217:11
110:16 114:13	208:4 210:13	268:6,7,15 270:2	65:17,23 66:5	223:11 227:21
123:10,22 126:18	214:23 215:23	279:4 281:3,14	67:13,24 69:17	229:12 231:7
126:20 139:10,20	219:14 222:21	283:13,15 284:13	70:12 72:21 74:23	233:1,4,8 247:2,8
147:18 151:24	224:5,18 230:19	285:6,20 287:16	79:23 80:1,4,15	248:4 249:7
152:7 156:13	246:11 249:1,6	288:3 290:6	81:25 83:1,14	250:19 251:23
157:3 159:14,23	251:21 254:3,22	numbers 48:10,13	84:1 87:9 88:8	252:21 253:6,20
177:21 178:19	255:4,12,14 261:1	58:14,22 69:24	92:7 94:12,18	252:21 233:0,20 255:5,23 258:8
180:4 181:5	268:14 270:11	105:5 209:15	97:7 98:2 100:21	262:10 266:23
202:20 203:14,17	271:5 274:6	Numeral 280:3	103:15 105:9,22	267:11 289:18
204:4,10 208:20	292:16	numerous 149:12	103.13 103.9,22	objections 276:22
212:19 214:12	non-peer-reviewed	Nutrition 279:12	113:12,22,25	Objectives 186:2
220:9 224:23	22:5,14	Nutrition 2/9.12	113.12,22,23	observation 190:12
236:12 237:1,6,11	non-responders	0	114.10,20 113.10	245:6 246:24
246:15,18 255:7	234:4	<b>O</b> 2:18 7:1	117:4,13 118:1	observational
291:13,21	- '	o'clock 294:6	123:2 124:2,17	146:2 200:5
nice 261:7	non-responsive 194:17	O'Connor 1:14 8:3	123.2 124.2,17	257:23 258:13,16
Nieto 271:11	non-user 230:21	294:3,21	127.1 128.7,12	observations
nine 65:16,18	nondependent	oath 161:19	132:9,25 133:9,17	245:16
111:11	98:18	object 27:10,22	134:12 135:4,24	observations'
nmiller@millerl	Nordstrom 76:9	38:6 45:6 242:11	134.12 133.4,24	245:2
			130.12,22 137.10	$Z^{+}J.Z$
1 7.5	1 270.12	1 // 1:9.10.11 ///4:8 I	· ·	obsorvo 71·12
2:5	270:12	273:9,10,13 274:8 275:25 276:14	138:24 142:1	observe 71:12
<b>nod</b> 10:8	normal 191:11,16	275:25 276:14	138:24 142:1 144:7 145:17	75:17
nod 10:8 non-differential	normal 191:11,16 North 138:7 144:2	275:25 276:14 278:4 280:11,20	138:24 142:1 144:7 145:17 147:9 149:15	75:17 <b>observed</b> 81:17
nod 10:8 non-differential 97:19	normal 191:11,16 North 138:7 144:2 159:20 201:15,24	275:25 276:14 278:4 280:11,20 284:7 291:4	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21	75:17 <b>observed</b> 81:17 91:11 101:17
nod 10:8 non-differential 97:19 non-epi 157:23	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10	75:17 <b>observed</b> 81:17 91:11 101:17 139:13 156:19
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23	75:17 <b>observed</b> 81:17 91:11 101:17 139:13 156:19 <b>observing</b> 19:3
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19	75:17 <b>observed</b> 81:17 91:11 101:17 139:13 156:19 <b>observing</b> 19:3 <b>obtain</b> 245:14
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23	75:17 <b>observed</b> 81:17 91:11 101:17 139:13 156:19 <b>observing</b> 19:3 <b>obtain</b> 245:14 <b>obtained</b> 271:23
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22	75:17 <b>observed</b> 81:17 91:11 101:17 139:13 156:19 <b>observing</b> 19:3 <b>obtain</b> 245:14 <b>obtained</b> 271:23 <b>Obviously</b> 177:1
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20 28:24 29:5 32:16	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2 notion 165:8	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16 28:1 29:6,17	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16 176:13,18 177:3	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8 85:20 110:23
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20 28:24 29:5 32:16 40:18 42:6,18	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2 notion 165:8 null 19:4 71:5,7,10	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16 28:1 29:6,17 31:13,14 32:9,20	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16 176:13,18 177:3 179:18 183:14,24	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8 85:20 110:23 111:15,19 112:23
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20 28:24 29:5 32:16 40:18 42:6,18 52:2 56:1 62:19	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2 notion 165:8 null 19:4 71:5,7,10 208:18 220:18,22	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16 28:1 29:6,17 31:13,14 32:9,20 33:12,24 34:13	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16 176:13,18 177:3 179:18 183:14,24 186:13 188:8,23	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8 85:20 110:23 111:15,19 112:23 119:3 120:14
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20 28:24 29:5 32:16 40:18 42:6,18 52:2 56:1 62:19 64:7 67:21 71:19	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2 notion 165:8 null 19:4 71:5,7,10 208:18 220:18,22 262:15	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16 28:1 29:6,17 31:13,14 32:9,20 33:12,24 34:13 35:17 36:8,19	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16 176:13,18 177:3 179:18 183:14,24 186:13 188:8,23 190:3,7,16,24	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8 85:20 110:23 111:15,19 112:23 119:3 120:14 156:17 224:1
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20 28:24 29:5 32:16 40:18 42:6,18 52:2 56:1 62:19 64:7 67:21 71:19 72:19 76:4,12	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2 notion 165:8 null 19:4 71:5,7,10 208:18 220:18,22 262:15 number 7:10 17:13	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16 28:1 29:6,17 31:13,14 32:9,20 33:12,24 34:13 35:17 36:8,19 37:11 38:6,21	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16 176:13,18 177:3 179:18 183:14,24 186:13 188:8,23 190:3,7,16,24 191:6,13,21,24	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8 85:20 110:23 111:15,19 112:23 119:3 120:14 156:17 224:1 occupations 70:24
nod 10:8 non-differential 97:19 non-epi 157:23 Non-Hodgkin 3:8 3:13 4:1,23 5:13 6:12 43:8 93:4 119:2 144:19 225:17 254:10 Non-Hodgkin's 6:4 6:7,10 11:7 28:20 28:24 29:5 32:16 40:18 42:6,18 52:2 56:1 62:19 64:7 67:21 71:19	normal 191:11,16 North 138:7 144:2 159:20 201:15,24 270:22 Northern 1:1 7:12 Notary 294:4,21 297:20 noted 297:7 notes 135:21,25 136:4 242:8 298:1 notice 69:2 notion 165:8 null 19:4 71:5,7,10 208:18 220:18,22 262:15	275:25 276:14 278:4 280:11,20 284:7 291:4 292:17 <b>objection</b> 11:24 13:1 14:20 15:11 15:12,21,24 16:8 16:23 18:15 20:5 20:8 22:6 23:14 24:14,15 25:10 26:1,9 27:12,16 28:1 29:6,17 31:13,14 32:9,20 33:12,24 34:13 35:17 36:8,19	138:24 142:1 144:7 145:17 147:9 149:15 150:20 151:11,21 152:13 153:4,10 153:17,25 155:23 156:5,22 157:19 159:6 160:23 161:23 164:3,22 165:5,10 166:20 166:24 170:10,20 172:6 173:16 176:13,18 177:3 179:18 183:14,24 186:13 188:8,23 190:3,7,16,24	75:17 observed 81:17 91:11 101:17 139:13 156:19 observing 19:3 obtain 245:14 obtained 271:23 Obviously 177:1 occasion 273:21 occupational 3:9 4:2 6:14 43:8 85:20 110:23 111:15,19 112:23 119:3 120:14 156:17 224:1

00000000 00:16 22	106.5 112.21	one time 219.12	20.12 15 19 24	70.7 00.10 00.25
occurred 98:16,23 278:25	106:5 112:21 115:11 116:9	one-time 218:13 ones 67:15 265:12	39:12,15,18,24 40:3,7 116:5	78:7 80:19 88:25 91:5 98:9 99:15
_, _, _,			117:25 118:5,8	
occurring 209:16 occurs 79:12	117:2,11,21 120:8 120:9 121:1 125:5	267:6,6,21 268:3 270:19 271:17	Orsi 51:5 122:20	102:18 108:16,19 112:18,19 113:17
October 155:7	120.9 121.1 123.3	288:20	270:17	120:25 125:12
239:17			outcome 31:22	120.23 123.12 129:25 130:7
	136:5,7 140:1 141:21 143:16	open 23:17,21		
<b>odds</b> 34:11 68:23 68:24 69:5,6 74:8	141:21 143:16	operate 188:11	32:4 34:8,17 35:3 35:9 50:7 66:24	137:23 138:5,10 139:24 141:19
74:9 75:1 78:12	144.3,4,24 140.17	<b>opinion</b> 11:13 31:15 41:7 42:15	73:18,24 74:12	142:6 154:17
78:13,17 86:19,20	150:17 154:14	44:3 47:18,23	75:16,24 74:12	155:17 166:5
86:23 87:17,18	155:8 157:9	52:13 60:14 72:18	81:19 88:4,15	168:4,6 170:12,15
88:2,3,22 95:3,11	158:17 167:19	119:16 123:9	100:25 101:2	171:24 172:9
95:19 100:3,9,19	178:7,20,21	141:17 143:9,21	105:15 115:25	171.24 172.9
100:24 102:20	180:20 182:15,24	145:11,25 146:4	130:16 203:24	178:3 177:12
100.24 102.20	184:19 185:19	147:17 198:15,23	205:20 206:2	186:2 187:18
105.1,3 104.13,17	187:3,16 188:15	199:5 249:19	217:19 237:2	188:14 189:5,8
103.7,13,13	189:6,21 195:15	277:12	256:5 259:10	195:16 207:20
113:4 118:13	201:14 207:21	opinions 11:12	outcomes 77:4,6	208:21 211:23
123:20 138:20	201.14 207.21 208:3,24,25	131:1 143:19	228:13,15 279:21	217:13 222:24,25
139:14 141:7	210:11 218:3,20	145:7,15 157:24	outfits 190:1	223:5,14 226:10
251:5	210.11 218.3,20 219:13 220:25	160:8 213:21	outline 47:11	236:1,4 237:4,21
offer 131:1	221:11,17,19	227:7 273:18,22	110:19 142:24	237:24 238:4,5,15
offered 47:10	223:1,4,19 225:14	273:25 274:5	outside 22:9 190:19	238:20 243:11
offhand 126:15	226:9,11 229:23	285:2 290:24	190:22 191:1	244:21 251:13
182:14	234:1,5,15 235:18	opportunity 9:11	overall 138:21	256:25 257:2
office 37:21	236:2 237:22	36:23 47:20 79:18	139:13 160:14	262:7,23 263:16
offices 1:11	238:11 243:9,12	229:5 272:25	236:25 260:5	265:16,17 279:22
oftentimes 23:9	244:22 245:25	288:19 289:1	265:13	279:25 280:2
61:20 192:15,18	248:13,14 250:23	opt 263:19	overinterpreted	282:6,8 287:17
205:17	255:2 256:12	oral 39:9 134:14	159:24	288:19 289:3,3
oh 111:16 120:5	257:1 260:7	140:25 143:25	overlap 69:10	296:3 298:2
211:19 223:23	263:23 266:22	Orange 2:6	overlapped 44:14	page-by-page
236:24 241:1	267:9,25 272:21	order 1:8 8:18	overlook 279:3	10:17
278:21 288:24	275:16 280:25	26:13 34:6,11,23	oxidative 157:15	pages 166:6,7
okay 9:6,9,16,18,19	281:3 285:7 286:9	60:21 172:9		167:18,18 297:5
10:4,10,11,16,25	289:8 290:20	191:19 213:20	P	<b>Pahwa</b> 66:14
12:3 17:18,19	292:10	215:5 216:5	<b>p</b> 2:1,1,18 7:1 17:21	270:18
27:3 29:9 43:6,23	old 174:19 253:22	Organization 59:5	<b>p-value</b> 19:1,20	<b>paid</b> 188:18
45:25 48:17 49:18	older 5:17 234:3	170:6 271:15	20:2 103:22,25	pajamas 189:25
53:14 56:12 61:2	235:22 264:6,12	original 22:16	257:12,16 258:2	190:13
65:9 68:9,12	once 79:17 129:15	49:12 56:13 76:22	258:20	panel 149:18 150:7
71:14 72:13 77:22	288:22	82:13 102:14	<b>p-values</b> 19:13	150:12 152:12
78:8 80:23 81:7,8	oncologist 78:3	218:25 225:5	257:7,9,24	259:13
85:16 86:5 89:1,4	247:19,21	229:21 283:17	page 3:1,5 4:7 47:1	panels 188:10
91:7,8 92:15	oncology 78:5	286:1 295:12	48:23 49:14,14,16	<b>Paolo</b> 112:2,7
98:11 99:16	280:8,15	originally 229:4	53:13 55:24 68:10	paper 3:12 4:23
104:14 105:17	one's 117:23	oropharyngeal	70:20 71:13 72:12	12:17 17:15 18:17
		<u> </u>	l	

22.1.2.15.12.15	240 10 27 : 22	22 10 20 22 22 7	100 1 107 7 200 0	104050010505
23:1,3 45:13,15	240:10 256:23	22:18,20,22 23:5	123:1 125:7 208:8	194:2,5,23 196:25
45:17,18 53:25	285:25 292:8	23:5,9,12,17 24:5	208:13 229:8,14	197:3,8 200:13,16
56:9,21,22 57:4	participant 191:19	24:6 25:1,2 64:22	229:18,21,24,25	200:18 201:4,23
57:19 66:1 79:17	participants 3:15	65:3,4 79:16	230:2,9 234:17,17	202:2 208:12
79:25 80:12,12,20	3:18 4:5 152:21	93:17,20 240:11	257:17 259:4,6	222:5,7 223:15
84:10 92:13,16	152:24 158:6,12	246:19,20 289:23	260:2,17 283:22	226:16,17 227:14
93:8,21,25 94:4	158:15 173:6,12	290:15,18	percentage 35:24	232:1 250:3,9,25
95:2,22 96:4,6	192:15 195:25	peer-reviewed	192:23 194:22	251:15 252:13
98:4 110:9 120:18	202:23 205:8,11	21:14,18 22:4,13	performed 45:20	254:2,9,21 281:17
120:23 122:2,5,16	206:3 209:14	53:19 55:18,21	45:22 77:8,11	282:22 286:21
122:21 137:24	226:17 229:22	64:19 68:10 77:24	122:24 186:11	pesticide-exposed
138:4,11,18	230:24 231:15	82:9 85:18 93:11	performing 18:20	4:15 197:22 198:5
143:13 144:17	271:12	94:1 99:17 102:16	period 95:11,17	pesticide-induced
195:1 206:21	participate 149:13	105:18 111:21	143:4 181:24	198:20 199:4
217:13 224:11,11	150:1,5,6	120:2 129:24	209:17 220:11	206:15
224:16 225:6,7,8	participated	131:8,10 132:14	249:5,21,23 253:3	pesticide-treated
225:12,17 229:20	149:18,19 158:9	243:15 244:6,19	253:12 275:22	251:16 252:14
236:10 240:12	particular 18:17	266:2	periods 249:9	pesticides 6:6,9,15
246:1 262:19	21:12 24:24 25:11	pending 45:1 277:5	permission 245:3	42:5,12,17 74:14
266:8 269:7,10,11	25:13 37:23 46:18	people 10:8 18:2	245:15 274:22	76:3,12 85:3,24
269:12,17,23	56:21 73:20	22:8 24:1 31:25	275:2,15	86:8,10,13,18
270:3,4,5,7,8,9,12	178:14 182:1	40:2 53:24 56:20	person 31:18,22	87:20 88:24 89:7
270:17,25 271:1,2	189:1 196:15	57:11,14 65:18,25	32:3 66:18 114:15	89:9,14,21 91:14
271:3,4,7,8,14	198:16 208:15	67:11,17 69:14	149:19 219:13	95:20,23,25 98:14
284:16,17,22	215:3 216:3 226:8	70:23 73:19,20	229:4 246:24	100:8,15 106:24
285:8 286:17	231:24 247:12	90:12 101:2,9,10	254:18 260:3	107:7,12,16,18,20
papers 24:8 54:10	252:17 257:20	126:11 132:6	283:6,7 294:6	108:4,7,11 109:9
54:17 55:11 62:22	258:17 281:4,20	159:3 181:9	person's 31:20	109:11,15,19
69:21 78:2 80:14	284:22	185:15 187:14	283:4	110:23 112:24
121:23,24 122:24	particularly 16:24	189:25 190:1	personal 197:1	113:1 115:10
123:5 137:10	143:23	191:11 192:7,13	198:21 199:3,9,11	139:23 140:24
164:4 246:20	parties 294:13,15	197:3 199:8,11,23	204:15,18,23	141:2 155:19
268:1,5 269:9,21	partners 171:24	200:3,15,21 202:1	206:16 242:10	192:16 194:6
284:14,14	partnership 172:4	202:9 203:7,9,25	263:20 281:15,22	201:18 217:16,18
paragraph 66:4	passing 272:3	204:17 206:3	282:4 283:1,8,11	218:1,8,9 223:9
71:17,23 72:16	<b>PATH</b> 172:19	217:9,23 228:21	personally 32:17	<b>ph</b> 1:20
98:13,13 108:16	pathology 3:20	229:8,15,20 230:2	perspective 11:2	Pharmacology
108:19 109:13	67:8 165:19	230:9 232:6,7,17	75:11 140:17	243:24
140:3,9 213:11	pathway 203:13,14	232:19 234:3,4,8	Perspectives 185:5	Pharmacotherap
217:12 243:13	204:3	235:4,8,11,15,22	pesticide 3:9 4:2,17	243:24
279:16	pathways 157:12	253:9 291:10	4:21,22 5:1,10,12	phone 2:4 7:25
paralegal 257:1	patients 37:21 38:3	perceived 53:23	6:1,4,11 43:9 64:8	41:21,23 64:4
part 20:9 33:17	38:16 248:1	184:14	69:3 71:20 88:19	163:10
46:3 79:21 88:11	<b>Paul</b> 66:24 112:2	percent 33:6 35:15	89:9,20 91:12	Phosphonic 68:13
145:6 150:8	PCa 14:14	36:1 52:1,16	93:2 94:5 109:1	phrase 26:22 27:7
151:19 193:11	Pearce 270:24	55:25 87:22 88:3	119:4 120:14	61:15
220:14 227:6	peer 21:20,24	104:21 105:5,6,15	193:7,17,20,22,25	physician 175:15
	•	•	•	1

pieces 279:7         167:20 168:3         position 160:19         143:25 270:21         163:18           pile 279:11         177:13 180:1         positions 27:1         presented 110:7         178:12           place 58:6 60:17,23         181:22 184:4         positive 74:17,21         134:15,25 143:24         179:13           174:7 257:10         189:3 190:6,8         74:25 91:10 94:10         168:21 245:21         186:1 2	5 161:5,20 3 177:16 2 179:2,10 3 180:10 212:24 2 266:13
pieces 279:7         167:20 168:3         position 160:19         143:25 270:21         163:18           pile 279:11         177:13 180:1         positions 27:1         presented 110:7         178:12           place 58:6 60:17,23         181:22 184:4         positive 74:17,21         134:15,25 143:24         179:13           174:7 257:10         189:3 190:6,8         74:25 91:10 94:10         168:21 245:21         186:1 2	3 177:16 2 179:2,10 3 180:10 212:24 2 266:13
pile 279:11         177:13 180:1         positions 27:1         presented 110:7         178:12           place 58:6 60:17,23         181:22 184:4         positive 74:17,21         134:15,25 143:24         179:13           174:7 257:10         189:3 190:6,8         74:25 91:10 94:10         168:21 245:21         186:1 2	2 179:2,10 3 180:10 212:24 2 266:13
place 58:6 60:17,23       181:22 184:4       positive 74:17,21       134:15,25 143:24       179:13         174:7 257:10       189:3 190:6,8       74:25 91:10 94:10       168:21 245:21       186:1 2	3 180:10 212:24 2 266:13
174:7 257:10     189:3 190:6,8     74:25 91:10 94:10     168:21 245:21     186:1 2	212:24 2 266:13
, and the second	2 266:13
Independ $50.15.60.00$   $100.16.000.00$   Independ of $100.00$   $100.00$	
	y 18:7
plaintiffs 2:7 7:18   209:24 219:3   224:4,17   presenting 168:14   probably	001615
	98:16,17
	156:3,9
1 '	3 194:13
play 146:1 251:15         265:20         212:4,14 213:12         pretty 224:11         problem	
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	6 142:16
	235:14,23
	12 239:6
56:11 68:9 71:13   policy 35:15 82:23   potential 25:2   244:17   problem	
71:15 72:11 80:19   <b>polite</b> 245:23   34:24 90:19   <b>prevention</b> 14:14   46:7,8	
86:3 89:2 99:15   <b>Pollard</b> 1:14 294:3   109:15 147:4   37:16 64:19   264:23	
101:20 105:19   294:21   157:10 187:15   <b>previous</b> 71:18   <b>process</b> 2	
	17,21,22,25
	79:12,13,16
146:20 178:2   76:16,20,21 77:9   90:9 214:2,3   262:25 263:11   79:21 8	
	151:19
	187:9,12
	2 240:24
237:21 243:10   212:19 217:4   <b>practically</b> 167:22   197:7 220:7 288:8   241:2,2	20 244:13
244:20 251:4,12   270:22   <b>practice</b> 28:9   <b>primarily</b> 28:13,14   <b>produce</b>	170:7
262:23 276:23   <b>poor</b> 74:19   <b>precise</b> 103:9 199:2   30:9 134:24   226:20	)
285:21 295:3,8   <b>poorly</b> 130:16,20   209:17,22,23   157:11   <b>produce</b>	er 56:13
plot 28:2,3,4,10   184:11   256:8   primary 37:22 41:9   producing	<b>ng</b> 8:17
45:12 48:18 49:19   population 199:18   precision 19:25   44:8 45:24 46:23   Products	s 1:3 7:9
49:20 50:15 58:1   200:15 205:25,25   202:14   128:3 145:12   <b>profession</b>	
58:6,11,15 59:13   206:4,7,8 215:3   <b>predict</b> 232:13   146:3 148:20   205:22	2
59:16 74:2 83:21   216:4   <b>predicting</b> 233:11   149:6 213:19,25   <b>profession</b>	onals 13:25
83:24 92:5,6 <b>population-based predicts</b> 231:22 214:8 252:4,10 174:5 2	205:24
110:5   11:4 12:13 178:18   premature 243:17   print 131:12   professo	or 174:18
<b>plots</b> 5:3 28:8 44:20   206:24   244:7   <b>printed</b> 71:15   175:9 1	176:25
44:23   populations 4:15   prepared 10:13   72:14   profound	<b>d</b> 141:2
plus 282:24,24	n 5:7
<b>point</b> 16:16 19:22   198:6 205:18,19   <b>preparing</b> 278:1   80:7 109:10   248:16	
28:5 38:12 60:25   Portier 4:8 175:15   present 2:16 86:11   156:23 224:11   progress	s 84:22
65:9 69:11 79:20   176:2 178:3   125:16 137:13   227:8 230:16   261:22	
84:3,6,8,10 87:3   Portier's 182:15,18   163:11 186:8   255:8,24 262:11   project 7	72:1,5
92:9 101:6,12,19   <b>portion</b> 72:14   236:16 237:19   263:14 287:19   102:7 1	
103:7 107:1 123:17 187:4 244:14 <b>private</b> 201:16 142:23	
110:10 113:5 262:24 <b>presentation</b> 23:6 <b>probability</b> 19:3 212:19	
121:21 123:7   portray 104:24   270:13   84:18   270:22	

			1-2-20	
<b>prolong</b> 272:17	provided 47:23	291:10	<b>pursue</b> 172:20	273:10,11 274:9
prominent 187:8	57:11 70:11,16	publications 12:4	<b>put</b> 22:12 24:2 27:7	276:1,15 277:2,5
187:11	95:22 132:2 145:3	28:24 132:18	32:1 36:7 47:5	278:5 280:12,21
pronounce 271:10	176:16,22 182:6,9	158:22 183:21	58:3,5 59:15	284:8 285:7
pronouncing 14:9	182:13 186:20,20	240:3 270:18	60:14 87:13 218:4	292:18
119:10	188:11 190:2	publicly 244:16	219:14 224:24	questioning 164:16
pronunciation	197:11 222:12	<b>publish</b> 25:8 36:10	251:17 252:15	225:2 237:12
279:18	225:8 226:16	36:18 88:6 205:22	279:5	273:23
<b>proper</b> 198:21	258:18 266:4	226:4 227:19	putting 31:25	questionnaire
199:2,9 206:16	271:21,24 289:13	228:3,8	69:24,25 224:16	17:24 217:15
proponents 274:15	290:23 291:2	publishable 240:12		218:15 219:21
propounded 297:6	provides 14:12	241:7 289:25	Q	228:22,23 229:9
prospective 200:6	15:5 27:18 37:14	published 21:14	qualified 29:2	229:11,15,24
201:15 226:20,25	280:16 291:12	22:17,24 23:11	qualitatively	230:4,6,7,10,11
227:2 281:11	provisionally 8:19	28:22 36:22 47:15	266:14	230:17,25 231:2
prospectively	<b>proxy</b> 90:19 139:8	47:25 48:1 55:18	quality 14:21,25	232:6,12,20,22
200:2	141:6,8 142:17	55:21 57:19 65:10	23:8 52:8 74:19	234:8 235:12,22
<b>prostate</b> 3:6 5:15	<b>public</b> 3:21 4:6	65:12,14 69:16,21	75:14 84:12 90:11	282:20
5:18 11:23 12:6	30:10,14,15 35:15	77:8,11 78:1	90:20 95:25 99:6	questionnaires
12:16,21,24 13:4	36:14 38:13 44:13	80:13 82:8,13	127:23 128:2,20	217:23 232:18,24
13:16,25 18:25	82:23 119:23,25	85:21 93:13	131:9 132:18	233:6 235:6,8
20:4,12,14,16	132:23 148:20,22	111:22 119:22	133:24 141:15	questions 9:10,14
21:2,10,12 28:18	149:7 152:9 153:1	120:3 125:4	181:21 196:20	10:1 21:1 154:12
35:24 36:12 37:10	153:16 154:21,24	129:24 131:10	206:2 226:15	174:25 192:9
37:16 38:11 61:5	169:17,23,25	153:22 161:1	245:12 257:13	232:7 240:13
77:18,20 131:16	170:17,25 171:9	195:20 219:2	279:20 290:9	242:13 243:8
132:1 246:21	171:11,13 172:18	236:7 240:15	quantity 98:16	254:5 262:4 272:1
259:16,21 260:3,6	173:25 174:3,24	243:23 245:8	<b>question</b> 12:10,12	272:22 281:4,15
260:11,20 264:7	175:2,10 250:16	275:4,13 280:14	16:1,5 29:14	283:13 297:6
264:12 265:4,13	275:3 279:9 294:4	282:22 283:10	32:21 34:14 38:7	quick 176:9 222:18
266:7	294:21 297:20	284:14,16 285:10	40:6 44:25 47:8	280:7 287:12,14
protection 197:2	<b>public's</b> 187:25	285:23 286:4,11	54:21 59:6 71:18	quicker 247:16
198:21 199:3,9,12	publication 3:23	289:16 290:4,7	91:23 96:2 105:18	quickly 189:22
206:17	21:21,23,25 26:20	291:10	113:19,24 116:11	287:14
protective 1:8 50:5	48:7,7 111:13,14	publisher 36:17	117:7,15,20	<b>quite</b> 61:12 141:19
101:14 203:8,9,12	131:8 156:14	publishing 37:1	143:16 153:14	266:16
203:16 204:2,15	170:24 171:3	65:3 262:21	157:16 163:16,22	<b>quote</b> 10:20 29:12
204:18,23 281:15	185:4,21 204:22	<b>PubMed</b> 133:10	173:25 178:20	81:8 170:5,12
281:22 282:4	210:15 218:16,18	<b>pulled</b> 169:22	184:4,12 187:10	189:7 265:2
283:1,8,11	220:4 226:1,8	<b>pure</b> 167:21	192:1 193:5	<b>quotes</b> 94:9,25
<b>protocol</b> 8:19 136:1	227:9 236:13,13	purporting 288:9	195:18 198:22	
provide 14:17	240:4,7,10,11,15	purpose 19:12	203:18,20 204:12	<u>R</u>
15:14 23:4 90:10	240:23,24 241:9	53:22 147:2 200:9	211:5 215:10,17	<b>R</b> 1:10 2:1,18,18
130:13 146:25	241:12,13,17	284:16	215:19,22 239:13	3:2 5:20 7:1 8:6
147:17 186:18	244:13 245:13	purposes 202:21	251:6,9,10,18	273:6 296:1,1
229:5 254:21	268:25 281:5,9	278:1	258:22 261:21	297:9
263:11	290:10,10,11	pursuant 8:18	263:15 266:4	race 20:14 232:10
		I	I	ı

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 103 of 114

Confidential - Subject to Protective Order

rage 44:18         53:24 54:10,17         192:11 213:22         291:7         134:5 140:23         134:5 140:23         166:7 180:22         166:7 180:22         166:7 180:22         166:7 180:22         166:7 180:22         166:7 180:22         20:3         166:7 180:22         20:3         125:10         134:5 140:23         166:7 180:22         20:3         135:10         136:16         243:20 245:10         289:20,23         203:11 225:10         229:60:11         289:20,23         236:19 237:7         289:20,23         203:11 225:10         223:19         236:7 266:11         289:20,23         236:9 20:12 <t< th=""><th></th><th></th><th></th><th></th><th></th></t<>					
Railroad 2:6 raise 39:16         55:11 56:8 71:17         224:13 228:18 237:14 242:1         receipt 295:13 receive 188:7,17 289:20.23 received 276:3 received 276:4 received 276:3 received 276:4 received 276:3 received 276:4 received 276:4 received 276:4 r	rage 11.18	53.24 54.10 17	192-11 213-22	291.7	134.5 140.23
raise al 166:11         72:16 73:2.8         237:14 242:1         receive 1887,17         289:20,23         181:2 201:9           raised 166:11         74:16 89:5 91:6         243:20 245:10         289:20,23         received 276:3         203:11 225:10           randomized 190:23         119:18,20 123:16         256:7 266:11         received 77:18         received 77:18         238:19 125:10         236:9,10 237:7         238:19 250:12         recess 41:15 63:21         236:9,10 237:7         238:19 250:12         recess 41:15 63:21         received 77:18         received 77:18         received 77:18         recess 41:15 63:21         236:9,10 237:7         238:19 250:12         reflect 46:2:21         reflect 46:2:21         reflect 46:2:21         reflect 46:3:21         reflect 47:6:79:3         reflect 47:6:79:3         sees 20:2:2:70:13         received 77:18         recess 41:15 63:21         reflect 47:6:79:3         reflect 47:6:79:3         reflect 47:6:79:3         reflect 47:6:79:3         reflect 47:6:79:3         reflect 47:6:79:3         reflect 46:2:21         respect 20:2:2:0:13         reflect 47:6:79:3         respect 20:2:2:0:13         received 27:18         received 77:3         r	C	· · · · · · · · · · · · · · · · · · ·			
raised 166:11         74:16 89:5 91:6         243:20 245:10         289:20.23         200:33         236:19 119.8,20 123:16         223:69:10 237:7         223:19 200:3         235:10 136:19         226:7:2 56:11         226:7:2 56:11         226:7:2 56:11         226:7:2 56:11         226:7:2 56:11         228:19 20:12         228:17 20:12         228:17 20:12         228:22         220:20 25:41         228:24         229:17 22:10         229:20 20:24:16         75:2 88:24 27:17         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220:20 25:41         220				_	
183:16		, and the second			
random         233:25         119:18,20 123:16         256:7 266:11         receptor         271:12         recess 41:15 63:21         refree         270:37         238:19 260:12         refree         270:37         refree         270:31         288:12 170:12         recess 41:15 63:21         refree         74:67 9:3         28:10 20:20:20:20:20:20:20:20:20:20:20:20:20:2				· /	
randomize 199:23         135:10 136:19         267:5         recess 41:15 63:21         refers 220:2 270:13           zandomized 200:8         136:23 145:23         Realtime 1:15         200:20         106:8 162:9 221:6         reflect 74:6 79:3           z57:22 258:1,13         158:22 170:12         reason 20:9 32:17         recess 41:15 63:21         reflect 74:6 79:3         84:8 277:24           zanging 263:4         179:5 181:20         175:14 188:21,24         recognize 176:21         260:20 254:16         75:2 83:24 274:1         76:2 85:7 79:11,13,15         75:2 83:24 274:1         76:2 85:7 79:11,13,15					,
200:3         138:23 145:23         Realtime 1:15         206:8 162:9 221:6         reflect 74:6 79:3           237:22 258:1,13         138:22 170:12         reason 20:9 32:17         range 249:13         range 249:13         range 170:11         reason 20:9 32:17         recognize 176:21         75:2 83:24 274:1         220:20 254:16         75:2 83:24 274:1         75:2 83:22 23:23         75:2 83:22 23:23         75:2 83:23 23:23         75:2 83:23 23:23		*			
randomized 200:8         146:23 147:7         294:22         261:10 272:10         84:8 277:24         range 249:13         172:11 178:5         158:22 170:12         reason 20:9 32:17         recognize 176:21         75:2 83:24 274:1         75:2 83:24 274:1         75:2 83:24 274:1         75:2 83:24 274:1         75:2 83:24 274:1         75:2 83:22 202 25:4:6         75:2 83:24 274:1         285:4         75:14 188:21,24         75:14 188:21,24         75:2 83:24 275:1         75:2 83:24 274:1         75:2 83:24 274:1         285:4         75:17         75:2 83:24 274:1         285:4         75:17         75:2 83:24 274:1         285:4         75:18         275:19 25:52:5         75:06:5         75:17         75:18 13:					
257:22 258:1,13         158:22 170:12         reason 20:9 32:17         recognize 176:21         reflected 62:21           ranging 263:4         179:51 81:20         175:14 188:21,24         220:20 254:16         220:20 254:16         75:28 83:24 274:1           rare 77:4 113:11         182:15,22,24         189:16,19 203:1         recognized 77:1         recommend 25:7         rec					
range 249:13         172:11 178:5         36:25 51:13 149:3         220:20 254:16         75:2 83:24 274:1           ranging 263:4         179:5 181:20         175:14 188:21,24         271:18 288:15         275:18 288:15           rare 77:4 113:11         260:21         183:2 184:15         203:21,22 205:25         rate 91:48:2 197:2         183:2 184:15         203:21,22 205:25         recommend 25:7         recomm					
ranging 263:4         179:5 181:20         175:14 188:21,24         271:18 288:15         7edfective 75:17           260:21         183:2 184:15         203:21,22 205:25         recommend 25:7         recommend 25:7         reflective 75:17         103:10 256:3         recommend 25:7         recommendation         recommendation         recommendation         recommendation         reflects 12:17         28:25         resonable 16:15         42:16 123:25         recommended 31:5         regarding 33:23 81:14         resonable 16:15         Reconfirm 163:15         regarding 47:19         68:13 249:19         record 7:4 8:15         regarding 47:19         68:14 38:13 65:7         recomfrom 163:5         regarding 47:19         68:14 38:13 65:7         recomfrom 163:5         regarding 47:19         68:14 38:13 65:7         record 7:4 8:15         recor				O	
rare 77.4 113:11         182:15,22,24         189:16,19 203:1         recognized 77:1         reflective 75:17           rate 148:2 197:2         186:12 207:5         226:3 235:23         recommend 25:7         reflects 12:17           rate 148:2 197:2         186:12 207:5         226:3 235:23         recommendation         reflects 12:17           rate 148:2 197:2         212:8 244:3 251:8         225:20,24         recommendations         reflects 12:17           68:23,24 69:5,6         268:7,9,13,161.8         296:17,19,21         25:20,24         recommendations           78:13,17 86:19,20         270:25 277:2,47         268:23 87:17,18         280:7 282:17         42:16 123:25         recommended 31:5         reflects 12:17           88:2,22 95:4,11         288:21 295:3         181:13 249:19         recommended 31:5         Reconfirm 163:5         recommended 31:5         reflects 12:17           89:19 100:39,19         297:4         274:1 292:11         41:14,16,19,20         41:14,16,19,20         68:14 98:15 144:1         209:2         record 7:4 8:15         209:2         regard 3:23 81:14         209:2         regard 3:23 81:14         209:2         regard 3:23 81:14         209:2         18:13 249:19         222:11 24:61,11         209:2         41:14,16,19,20         68:14 98:15 144:1         209:2         162:8 163:3 221:5					
260:21         183:2 184:15         203:21,22 205:25         recommend 25:7         recommend 25:7         reflects 12:17           rates 11:22         212:8 244:3 251:8         275:9 295:5 296:5         25:20,24         reflects 12:17           ratio 18:19,25         68:23,24 69:5,6         268:7,9,13,16,18         296:17,19,21         recommendations         reflects 12:17           78:13,17 86:19,20         208:20 269:1,8,13         reasonable 16:15         296:17,19,21         recommended 31:5         regarding 32:23 81:14           88:23 87:17,18         280:7 282:17         288:21 295:3         124:14 136:10         Reconfirm 163:5         regarding 47:19         regarding 47:19         regarding 47:19         68:14 98:15 144:1         209:2         regarding 47:19         68:14 98:15 144:1         209:2         regarding 47:19         regarding 47:19         recommended 31:5         regarding 47:19         regarding 47:19         recommended 31:5         recommended 31:5         recommended 31:5         regarding 47:19         recommended 31:5         recommend 25:7         recommended 31:5         recommend 25:7         redommend 25:7         reflects 12:17         245:10         ecommend 25:7         recommend 2					
rate 148:2 197:2 rates 11:22         186:12 207:5 21:8 224:3 251:8 27:9 295:5 296:1 296:		, ,		C	
rates 11:22         212:8 244:3 251:8 267:9 295:5 296:5 266:7.9,13,16,18 267:18,22 268:4,5 266:7.9,13,16,18 268:20,269:1,8,13 74:8,9 75:2 78:12 268:20 269:1,8,13 reasonable 16:15 78:13,17 86:19,20 270:25 277:2,4,7 280:23 87:17,18 88:2,22 95:4,11 288:21 295:3 288:21 295:3 181:13 249:19 297:4 274:12 292:11 292:11 292:11 297:4 274:12 292:11 292:11 292:11 293:1 100:24 102:20 103:1,3 104:16,17 105:13 100:68:18 80:24 98:12 137:9 123:20 235:19 128:14,17,18,21 128:14,17,18,21 128:14,17,18,21 128:14,17,18,21 128:14,17,18,21 128:14,17,18,21 128:14,17,18,21 128:14,17,18,21 129:15 263:9 265:2 240:24 245:19 263:9 265:2 218 293:2 125:5 264:17,24 265:5,9,11 real 38:3 61:5,12 41:122 142:7,10 294:9 293:1 294:10 203:3 35:24 141:8 23:15 26:20 27:19 128:218 293:3 141:8 23:15 26:20 27:19 128:218 293:3 141:8 23:15 26:20 27:19 182:218 293:1 141:22 142:15:19 168:25 173:17 reference 07:15 27:25 18:1 105:2 27:8 293:1 294:10 106:24 105:20 27:19 182:2185:21 17:19 19:24 22:25 175:19 176:23 reference 274:13 reference 67:15 27:3 reached 11:16 110:11 114:22 267:6,9 269:15 161:10 196:1 70:1 178:50 240:24 129:10 100:24 100:24 129:16 100:24 1			· · · · · · · · · · · · · · · · · · ·		
ratio 18:19,25         267:18,22 268:4,5         296:7,9,11,13,15         recommendations         refresh 90:2 279:6         regard 33:23 81:14           74:8,9 75:2 78:12         268:20 269:1,8,13         268:20 269:1,8,13         296:17,19,21         245:17         245:17         89:6 132:6 277:11         89:6 132:6 277:11         89:6 132:6 277:11         89:6 132:6 277:11         89:6 132:6 277:11         89:6 132:6 277:11         79:19 100:32,919         124:14 136:10         124:14 136:10         124:14 136:10         124:14 136:10         124:14 136:10         124:14 136:10         124:14 136:10         125:17         124:14 136:10         129:14 136:15         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         129:12         12					
68:23,24 69:5,6         268:7,9,13,16,18         296:17,19,21         36:14 38:13 65:7         regard 33:23 81:14           74:8,9 75:2 78:12         268:20 269:1,8,13         270:25 277:2,4,7         42:16 123:25         recommended 31:5         regarding 47:19           86:23 87:17,18         288:2,29 55:4,11         280:7 282:17         124:14 136:10         recommended 31:5         regarding 47:19           95:19 100:3,9,19         297:4         274:1 292:11         recommended 31:5         regarding 47:19           100:24 102:20         reader 179:25         readily 236:18         123:20 235:19         63:20,22 106:7,9         regards 77:18           105:13 110:6         readily 236:18         123:20 235:19         220:6         221:7 242:6,14,17         Registreed 1:14         registries 228:18         registries 228:18 <t< td=""><td></td><td></td><td></td><td>,</td><td></td></t<>				,	
74:8,9 75:2 78:12         268:20 269:1,8,13         reasonable 16:15         245:17         89:6 132:6 277:11           78:13,17 86:19,20         270:25 277:2,4,7         42:16 123:25         recommended 31:5         reagrding 47:19           86:23 87:17,18         280:7 282:17         124:14 136:10         recommended 31:5         reagrding 47:19           88:2,29 5:4,11         288:21 295:3         181:13 249:19         41:14,16,19,20         68:14 98:15 144:1           95:19 100:3,9,19         297:4         274:1 292:11         63:20,22 106:7,9         162:8 163:3 221:5         209:2         regards 77:18           105:13 110:6         reading 68:18         123:20 235:19         162:8 163:3 221:5         18:16         Registered 1:14         registries 228:18         18:16           121:10,12 123:1         177:17 179:19         128:14,17,18,21         180:15,20 240:7         39:5 57:10 65:6         293:1 294:10         registries 228:18         registry 217:20         regression 86:15           129:6,10,15,21,25         244:24 245:19         89:18,25 90:25         red 173:10,15,24         reduce 19:16         registries 228:18         registry 217:20         regression 86:15         86:16,17,19,23         86:16,17,19,23         86:16,17,19,23         106:16,21,23         106:16,21,23         107:3,11,13 108:7         106:16,21,23         107:3,11,1	· · · · · · · · · · · · · · · · · · ·	, , , , , , , , , , , , , , , , , , , ,	, , , , ,		
78:13,17 86:19,20         270:25 277:2,4,7         42:16 123:25         recommended 31:5         regarding 47:19           86:23 87:17,18         280:7 282:17         124:14 136:10         Reconfirm 163:5         68:14 98:15 144:1           88:2,22 95:4,11         288:21 295:3         181:13 249:19         record 7:4 81:5         209:2           95:19 100:3,9,19         297:4         274:1 292:11         41:14,16,19,20         regardless 263:12           103:1,3 104:16,17         reading 68:18         reading 68:18         290:6         221:7 242:6,14,17         regardless 263:12           113:4 118:13         80:24 98:12 137:9         rebuttal 183:8,16         261:9,11 272:7.9         registre 228:18           129:6,10,15,21,25         180:15,20 240:7         39:5 57:10 65:6         293:1 294:10         registry 217:20         regression 86:15           129:6,10,15,21,25         244:24 245:19         89:18,25 90:25         red 173:10,15,24         reduce 19:16         86:16,17,19,23           130:1,6,13 139:14         real 83:3 61:5,12         ready 289:16         137:21 138:16         reduce 19:16         reduce 19:16         reduce 19:16         87:18 104:17         86:16,17,19,23           34:11 105:8         222:18 29:23         161:11 165:12         refer 181:20 196:2         106:16,21,23         106:16,21,23         107			, ,		
86:23 87:17,18         280:7 282:17         124:14 136:10         Reconfirm 163:5         68:14 98:15 144:1           88:2,22 95:4,11         288:21 295:3         181:13 249:19         274:1 292:11         record 7:4 8:15         209:2           95:19 100:3,9,19         297:4         274:1 292:11         record 7:4 8:15         regardless 263:12           100:24 102:20         reader 179:25         reasons 47:11         63:20,22 106:7,9         regardless 263:12           105:13 110:6         reading 68:18         80:24 98:12 137:9         123:20 235:19         162:8 163:3 221:5         184:16           113:4 118:13         80:24 98:12 137:9         rebuttal 183:8,16         261:9,11 272:7,9         registreed 1:14           129:6,10,15,21,25         130:1,6,13 139:14         263:9 265:2         91:12 93:22 98:6         red 173:10,15,24         reduced 19:16         registrey 217:20         regression 86:15           265:5,9,11         real 38:3 61:5,12         141:22 142:7,10         87:18 104:17         107:3,11,13 108:7           34:11 105:8         222:18 229:23         161:11 165:12         168:25 173:17         196:4         reference 274:13         109:12,14,18           127:22 138:20         really 14:21 15:19         188:22 185:21         reference 274:13         reference 244:24         referred 107:25         64:23	,				
88:2,22 95:4,11         288:21 295:3         181:13 249:19         record 7:4 8:15         209:2         regardless 263:12         regardless 263:12<	· · · · · · · · · · · · · · · · · · ·	, ,			0
95:19 100:3,9,19 100:24 102:20 100:24 102:20 103:1,3 104:16,17 103:1,3 104:16,17 105:13 110:6 113:4 118:13 105:13 110:6 124:10,12 123:1 123:10,12 123:1					
100:24 102:20         reader 179:25         reasons 47:11         63:20,22 106:7,9         regards 77:18         184:16           105:13 110:6         reading 68:18         290:6         221:7 242:6,14,17         Registered 1:14           113:4 118:13         80:24 98:12 137:9         rebuttal 183:8,16         261:9,11 272:7,9         registries 228:18           121:10,12 123:1         177:17 179:19         recall 27:19,25         272:11 282:18         registry 217:20           128:14,17,18,21         180:15,20 240:7         39:5 57:10 65:6         293:1 294:10         registry 217:20           129:6,10,15,21,25         244:24 245:19         89:18,25 90:25         91:12 93:22 98:6         293:1 294:10         regression 86:15           125:5 264:17,24         263:9 265:2         91:12 93:22 98:6         reduced 20:3 35:24         106:16,21,23         107:3,11,13 108:7           108:25 123:20         really 14:21 15:19         168:25 173:17         196:4         reference 274:13         relate 77:20 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
103:1,3 104:16,17					O
105:13 110:6         reading 68:18         290:6         221:7 242:6,14,17         Registered 1:14           113:4 118:13         80:24 98:12 137:9         rebuttal 183:8,16         261:9,11 272:7,9         registries 228:18           121:10,12 123:1         177:17 179:19         180:15,20 240:7         39:5 57:10 65:6         293:1 294:10         registry 217:20           129:6,10,15,21,25         244:24 245:19         89:18,25 90:25         red 173:10,15,24         86:16,17,19,23           130:1,6,13 139:14         263:9 265:2         91:12 93:22 98:6         reduce 19:16         86:16,17,19,23           251:5 264:17,24         ready 289:16         137:21 138:16         reduced 20:3 35:24         86:16,17,19,23           255:5,9,11         real 38:3 61:5,12         141:22 142:7,10         42:16,21 147:15         294:9         106:16,21,23           108:25 123:20         really 14:21 15:19         168:25 173:17         196:4         refer 181:20 196:2         109:12,14,18           127:22 138:20         17:19 19:24 22:25         186:19 197:15         286:12,15         64:23 240:23           reach 201:24         23:15 26:20 27:19         182:22 185:21         reference 274:13         reference 274:13         64:23 240:23           reached 11:16         110:11 114:22         267:6,9 269:15         16:10 196:1					O
113:4 118:13         80:24 98:12 137:9         rebuttal 183:8,16         261:9,11 272:7,9         registries 228:18           121:10,12 123:1         177:17 179:19         180:15,20 240:7         39:5 57:10 65:6         293:1 294:10         regression 86:15           129:6,10,15,21,25         244:24 245:19         291:12 93:22 98:6         293:1 294:10         regression 86:15           130:1,6,13 139:14         263:9 265:2         91:12 93:22 98:6         reduce 19:16         86:16,17,19,23           265:5,9,11         real 38:3 61:5,12         141:22 142:7,10         87:18 104:17         107:3,11,13 108:7           ratios 17:25 18:1         61:15 115:5         142:16,21 147:15         294:9         108:23,24 109:9           127:22 138:20         really 14:21 15:19         168:25 173:17         196:4         reference 274:13         reference 274:13         rejected 25:15 27:3           reanalyze 76:23         43:3 53:9 56:6,24         186:19 197:15         286:12,15         64:23 240:23           reached 11:16         110:11 114:22         267:6,9 269:15         16:10 196:1         81:20,22 134:1           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read 37:20 38:4         149:17 160:24         284:3 285:10,15         108:2 120:19 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
121:10,12 123:1         177:17 179:19         recall 27:19,25         272:11 282:18         registry 217:20           128:14,17,18,21         180:15,20 240:7         39:5 57:10 65:6         293:1 294:10         regression 86:15           129:6,10,15,21,25         244:24 245:19         89:18,25 90:25         red 173:10,15,24         red 173:10,15,24           130:1,6,13 139:14         263:9 265:2         91:12 93:22 98:6         reduce 19:16         87:17,21 92:12           251:5 264:17,24         ready 289:16         137:21 138:16         reduced 20:3 35:24         106:16,21,23           265:5,9,11         feal 38:3 61:5,12         141:22 142:7,10         87:18 104:17         107:3,11,13 108:7           24:10 105:8         222:18 229:23         161:11 165:12         refer 181:20 196:2         108:23,24 109:9           127:22 138:20         17:19 19:24 22:25         175:19 176:23         reference 274:13         reference 274:13         rejected 25:15 27:3           141:8         23:15 26:20 27:19         182:22 185:21         286:12,15         64:23 240:23           reached 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         related 78:20           reached 11:16         110:11 114:22         270:19 275:21         161:10 196:1         87:20 294:12           reached 37:20 38:4<		$\cup$			C
128:14,17,18,21       180:15,20 240:7       39:5 57:10 65:6       293:1 294:10       regression 86:15         129:6,10,15,21,25       244:24 245:19       89:18,25 90:25       red 173:10,15,24       86:16,17,19,23         130:1,6,13 139:14       263:9 265:2       91:12 93:22 98:6       reduce 19:16       87:17,21 92:12         251:5 264:17,24       ready 289:16       137:21 138:16       reduced 20:3 35:24       106:16,21,23         265:5,9,11       real 38:3 61:5,12       141:22 142:7,10       87:18 104:17       107:3,11,13 108:7         34:11 105:8       222:18 229:23       161:11 165:12       refer 181:20 196:2       109:12,14,18         108:25 123:20       really 14:21 15:19       168:25 173:17       196:4       reject 22:1 65:8         127:22 138:20       17:19 19:24 22:25       175:19 176:23       reference 274:13       reference 274:13       reject 22:1 65:8         141:8       23:15 26:20 27:19       182:22 185:21       reference 274:13       reference 244:24       reference 244:24         274:14 275:10,14       72:7 89:15 103:5       222:15 263:25       refered 107:25       35:2 61:19 75:5         reached 11:16       110:11 114:22       267:6,9 269:15       161:10 196:1       81:20,22 134:1         152:2 227:8       119:15 121:20       270:19 275:21       refer			,		C
129:6,10,15,21,25         244:24 245:19         89:18,25 90:25         red 173:10,15,24         86:16,17,19,23           130:1,6,13 139:14         263:9 265:2         91:12 93:22 98:6         reduce 19:16         87:17,21 92:12           251:5 264:17,24         ready 289:16         137:21 138:16         reduced 20:3 35:24         106:16,21,23           265:5,9,11         61:15 115:5         141:22 142:7,10         87:18 104:17         107:3,11,13 108:7           34:11 105:8         222:18 229:23         161:11 165:12         refer 181:20 196:2         108:23,24 109:9           127:22 138:20         17:19 19:24 22:25         175:19 176:23         reference 274:13         reject 22:1 65:8           141:8         23:15 26:20 27:19         182:22 185:21         reference 467:15         64:23 240:23           reach 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         relate 77:20           reached 11:16         110:11 114:22         267:6,9 269:15         16:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         relates 1:5 150:8           195:23         164:7 172:11         284:3 285:	*		*		C C
130:1,6,13 139:14         263:9 265:2         91:12 93:22 98:6         reduce 19:16         87:17,21 92:12           251:5 264:17,24         ready 289:16         137:21 138:16         reduced 20:3 35:24         106:16,21,23           265:5,9,11         real 38:3 61:5,12         141:22 142:7,10         87:18 104:17         107:3,11,13 108:7           ratios 17:25 18:1         61:15 115:5         142:16,21 147:15         294:9         108:23,24 109:9           34:11 105:8         222:18 229:23         161:11 165:12         refer 181:20 196:2         109:12,14,18           108:25 123:20         17:19 19:24 22:25         168:25 173:17         196:4         reference 274:13         reference 274:13         reject 22:1 65:8           141:8         23:15 26:20 27:19         182:22 185:21         reference 467:15         64:23 240:23           reach 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         relate 77:20           reached 11:16         110:11 114:22         267:6,9 269:15         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read	, , ,	,			C
251:5 264:17,24 265:5,9,11         ready 289:16 real 38:3 61:5,12         137:21 138:16 141:22 142:7,10 141:22 142:7,10 141:22 142:7,10 17:3,11,13 108:7         reduced 20:3 35:24 107:3,11,13 108:7         106:16,21,23 107:3,11,13 108:7           ratios 17:25 18:1 34:11 105:8 34:11 105:8 108:25 123:20 108:25 123:20 127:22 138:20 127:22 138:20 141:8 127:22 138:20 141:8 123:15 26:20 27:19 182:22 185:21 141:8 141:1 141			′	, ,	, , ,
265:5,9,11         real 38:3 61:5,12         141:22 142:7,10         87:18 104:17         107:3,11,13 108:7           ratios 17:25 18:1         61:15 115:5         142:16,21 147:15         294:9         108:23,24 109:9           34:11 105:8         222:18 229:23         161:11 165:12         refer 181:20 196:2         109:12,14,18           108:25 123:20         really 14:21 15:19         168:25 173:17         196:4         reject 22:1 65:8           127:22 138:20         17:19 19:24 22:25         175:19 176:23         reference 274:13         rejected 25:15 27:3           141:8         23:15 26:20 27:19         182:22 185:21         reference 67:15         64:23 240:23           reach 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         related 28:24 33:8           274:14 275:10,14         72:7 89:15 103:5         222:15 263:25         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         195:23           41:1,3,4 44:1         164:7 172:11         284:3 285:10,15         108:2 120:19         relation 279:20	′ ′				·
ratios 17:25 18:1         61:15 115:5         142:16,21 147:15         294:9         108:23,24 109:9           34:11 105:8         222:18 229:23         161:11 165:12         refer 181:20 196:2         109:12,14,18           108:25 123:20         17:19 19:24 22:25         175:19 176:23         196:4         reject 22:1 65:8           127:22 138:20         17:19 19:24 22:25         175:19 176:23         reference 274:13         rejected 25:15 27:3           141:8         23:15 26:20 27:19         182:22 185:21         referenced 67:15         64:23 240:23           reach 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         related 28:24 33:8           274:14 275:10,14         72:7 89:15 103:5         222:15 263:25         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         195:23           41:1,3,4 44:1         164:7 172:11         284:3 285:10,15         108:2 120:19         relation 279:20	,	•			, ,
34:11 105:8       222:18 229:23       161:11 165:12       refer 181:20 196:2       109:12,14,18         108:25 123:20       17:19 19:24 22:25       175:19 176:23       196:4       reject 22:1 65:8         127:22 138:20       17:19 19:24 22:25       175:19 176:23       reference 274:13       rejected 25:15 27:3         141:8       23:15 26:20 27:19       182:22 185:21       referenced 67:15       64:23 240:23         re-analyze 76:23       43:3 53:9 56:6,24       198:10 200:20       References 244:24       relate 77:20         reach 201:24       57:10 69:11 70:1       198:10 200:20       References 244:24       related 28:24 33:8         274:14 275:10,14       72:7 89:15 103:5       222:15 263:25       161:10 196:1       81:20,22 134:1         reached 11:16       110:11 114:22       267:6,9 269:15       161:10 196:1       81:20,22 134:1         152:2 227:8       119:15 121:20       270:19 275:21       referring 12:3 13:9       246:20 294:12         read 37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relation 279:20		,	,		, ,
108:25 123:20         really 14:21 15:19         168:25 173:17         196:4         reject 22:1 65:8           127:22 138:20         17:19 19:24 22:25         175:19 176:23         reference 274:13         reject 22:1 65:8           141:8         23:15 26:20 27:19         182:22 185:21         referenced 67:15         64:23 240:23           re-analyze 76:23         43:3 53:9 56:6,24         186:19 197:15         286:12,15         relate 77:20           reach 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         related 28:24 33:8           274:14 275:10,14         72:7 89:15 103:5         222:15 263:25         referred 107:25         35:2 61:19 75:5           reached 11:16         110:11 114:22         267:6,9 269:15         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         195:23           41:1,3,4 44:1         164:7 172:11         284:3 285:10,15         108:2 120:19         relation 279:20			'		· ·
127:22 138:20       17:19 19:24 22:25       175:19 176:23       reference 274:13       rejected 25:15 27:3         141:8       23:15 26:20 27:19       182:22 185:21       referenced 67:15       64:23 240:23         re-analyze 76:23       43:3 53:9 56:6,24       186:19 197:15       286:12,15       relate 77:20         reach 201:24       57:10 69:11 70:1       198:10 200:20       References 244:24       related 28:24 33:8         274:14 275:10,14       72:7 89:15 103:5       222:15 263:25       referred 107:25       35:2 61:19 75:5         reached 11:16       110:11 114:22       267:6,9 269:15       161:10 196:1       81:20,22 134:1         152:2 227:8       119:15 121:20       270:19 275:21       referring 12:3 13:9       246:20 294:12         reaching 278:2       129:4,16 131:21       276:8 277:6 279:4       31:3 47:21 52:5       relates 1:5 150:8         read 37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relation 279:20					, ,
141:8       23:15 26:20 27:19       182:22 185:21       referenced 67:15       64:23 240:23         re-analyze 76:23       43:3 53:9 56:6,24       186:19 197:15       286:12,15       relate 77:20         reach 201:24       57:10 69:11 70:1       198:10 200:20       References 244:24       related 28:24 33:8         274:14 275:10,14       72:7 89:15 103:5       222:15 263:25       referred 107:25       35:2 61:19 75:5         reached 11:16       110:11 114:22       267:6,9 269:15       161:10 196:1       81:20,22 134:1         152:2 227:8       119:15 121:20       270:19 275:21       referring 12:3 13:9       246:20 294:12         reaching 278:2       129:4,16 131:21       276:8 277:6 279:4       31:3 47:21 52:5       relates 1:5 150:8         read 37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relation 279:20				reference 274:13	•
re-analyze 76:23       43:3 53:9 56:6,24       186:19 197:15       286:12,15       relate 77:20         reach 201:24       57:10 69:11 70:1       198:10 200:20       References 244:24       related 28:24 33:8         274:14 275:10,14       72:7 89:15 103:5       222:15 263:25       referred 107:25       35:2 61:19 75:5         reached 11:16       110:11 114:22       267:6,9 269:15       161:10 196:1       81:20,22 134:1         152:2 227:8       119:15 121:20       270:19 275:21       referring 12:3 13:9       246:20 294:12         reaching 278:2       129:4,16 131:21       276:8 277:6 279:4       31:3 47:21 52:5       relates 1:5 150:8         read 37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relate 77:20			182:22 185:21		
reach 201:24         57:10 69:11 70:1         198:10 200:20         References 244:24         related 28:24 33:8           274:14 275:10,14         72:7 89:15 103:5         222:15 263:25         35:2 61:19 75:5           reached 11:16         110:11 114:22         267:6,9 269:15         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         195:23           41:1,3,4 44:1         164:7 172:11         284:3 285:10,15         108:2 120:19         related 28:24 33:8			186:19 197:15		
reached 11:16         110:11 114:22         267:6,9 269:15         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         195:23           41:1,3,4 44:1         164:7 172:11         284:3 285:10,15         108:2 120:19         relation 279:20	-	57:10 69:11 70:1	198:10 200:20	*	<b>related</b> 28:24 33:8
reached 11:16         110:11 114:22         267:6,9 269:15         161:10 196:1         81:20,22 134:1           152:2 227:8         119:15 121:20         270:19 275:21         referring 12:3 13:9         246:20 294:12           reaching 278:2         129:4,16 131:21         276:8 277:6 279:4         31:3 47:21 52:5         relates 1:5 150:8           read 37:20 38:4         149:17 160:24         281:7 283:15         89:22 104:12         195:23           41:1,3,4 44:1         164:7 172:11         284:3 285:10,15         108:2 120:19         relation 279:20				referred 107:25	
152:2 227:8       119:15 121:20       270:19 275:21       referring 12:3 13:9       246:20 294:12         reaching 278:2       129:4,16 131:21       276:8 277:6 279:4       31:3 47:21 52:5       relates 1:5 150:8         read 37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relation 279:20				161:10 196:1	
reaching 278:2       129:4,16 131:21       276:8 277:6 279:4       31:3 47:21 52:5       relates 1:5 150:8         read 37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relation 279:20	152:2 227:8		′		,
read       37:20 38:4       149:17 160:24       281:7 283:15       89:22 104:12       195:23         41:1,3,4 44:1       164:7 172:11       284:3 285:10,15       108:2 120:19       relation 279:20					
41:1,3,4 44:1 164:7 172:11 284:3 285:10,15 108:2 120:19 <b>relation</b> 279:20	C				
	50:16,22,24 51:1	180:13 188:5	286:5 289:10	124:24 131:20	relationship 55:2
					<u> </u>

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 104 of 114

Confidential - Subject to Protective Order

				3
55:12 67:22 72:19	repeat 61:24 96:2	represented 92:6	responded 131:19	236:18 244:14,15
73:4,7,11 101:4	repeatedly 62:14	110:5	229:15	254:20 256:13
114:23 115:19	157:1	representing 147:3	respondents 90:19	258:1 264:19
118:10 137:11	rephrase 117:15	represents 10:22	139:8 141:6,9	265:3 266:14
151:16 166:8	178:20	reproductive	142:17 283:15,22	275:5 287:1
167:10 168:5	replicate 62:3,13	279:21	284:20	290:14 291:11,24
172:11 203:23	replicates 62:9	request 276:7	responding 235:16	retain 96:18
206:6 274:5	replication 62:5	requested 11:1	response 79:14	retained 62:25 68:1
relative 34:5,22	report 3:21,22 5:19	27:4	129:5 132:2	68:5,6 79:5,22
35:4 50:1,6 52:19	5:20 10:12,19	require 29:24	responsible 35:6	80:7,11 96:15
74:4 83:22 101:17	11:17 13:7 40:25	204:25	rest 45:13,16,17	133:14 146:25
108:25 109:5	41:1,6 46:12	required 29:22	restate 12:9	148:9 184:5
120:21 208:9	47:12 63:3 102:14	30:3 31:6 169:9	restricted 265:3	retainer 3:14 146:9
226:19 259:6	110:19 126:16	169:12 205:7,11	restricted-use	146:21
260:1,5,14 262:12	134:23 140:3	requirements 5:6	201:18,23 202:2	retrospective 90:7
263:4,17 294:14	142:24 155:15	193:22 194:1	217:25	90:13 99:7
relatively 20:17	156:2 169:17,18	197:8 242:22	result 19:4,5,5,16	Retrospectively
35:5 62:20 90:16	169:22 170:4	243:3	40:4 50:10 52:7	200:1
100:6	182:3,16,18,20,25	requires 95:23	87:24 100:14	return 295:11
Release 4:18 213:7	183:2,7,8,17	205:15	118:18 123:4	revealed 56:21
relevant 186:4	185:12 195:6,10	reread 72:23 91:3	142:18 228:6	review 4:3 5:23
reliable 234:22	195:16,22 196:4	98:4	260:12,14	21:20 22:18,22
292:14	202:11 217:5	<b>RES</b> 119:24	results 17:14,20	23:1,17,21,22,23
relied 134:24 146:3	224:21 226:10	research 3:17 11:4	20:1,10 28:5	23:25 24:1,18
161:10,14	249:10 251:3	12:13 16:10 28:17	36:15,23,25 38:17	25:1,3 40:20,24
relies 233:17,25	255:19 266:18	29:1,5 38:11,12	46:9 51:16 52:6	40:25 43:11 44:10
rely 44:1,4 51:21	267:2 269:18	67:25 119:25	61:8 62:6 71:18	45:24 46:3 47:6
52:14 145:6,14	271:23 272:25	132:23 148:15	72:24,25 75:3	49:3 68:2 79:16
213:19 222:20	273:6,15 274:1	154:8 155:20	86:12 88:21 91:10	92:11 93:21 102:6
227:6 236:4,6	275:8,12 280:8,23	172:1 187:7	92:12 94:22 95:16	106:1 110:8
relying 196:17	281:8 283:10	197:12 228:2	98:1 99:14 101:8	120:20 123:17
remains 263:19	287:3	243:14 244:5	102:6 104:12,14	128:16 131:1
remember 46:12	reported 90:21	246:15 263:11	105:24 123:14	145:11,23 157:25
57:14 118:16	150:9 178:10,24	268:24 279:12	124:12,22 127:11	158:4 159:19
131:18 151:5,6	180:25 181:6	researching 279:19	129:8 131:13,25	161:2,3 164:9
163:22 164:15	209:24	residential 5:9	134:24 139:6,17	175:19 179:15
167:25 182:4	reporter 1:15,16	189:24 250:8	139:21,22 140:10	181:2,3 182:10,19
183:16 206:14	7:22 8:2 277:4	Residual 250:3	140:17,23 141:3,4	183:6 186:9 187:8
221:25 225:1	reporting 90:11	respect 118:5 143:2	141:12 143:15	187:12 224:12,14
264:14 274:19	99:7 209:15	252:1 253:10	159:24 160:3,25	240:12 246:19,20
276:18 281:18	reports 170:8	266:6 286:9,10	174:6 186:8 196:1	269:6 271:20
283:18,25 285:10	183:5 243:14	289:8	202:7,22 203:3,4	275:24 276:13
291:3,6	244:5 269:14	Respected 93:15	203:6,25 204:13	280:9,19 289:23
remind 125:12	278:22	respective 96:9	204:16 206:9	292:4,5,7,12
remove 31:21 32:2	represent 7:15 58:4	respond 22:2 132:8	209:11 211:21	reviewed 24:8 26:3
removed 141:8	representation	230:24 235:20,22	212:17 225:25	39:6 42:11,22
repair 282:24	242:17	283:23	226:7,21 236:16	43:24 57:18 75:21
	,			.5.2757.1075.21

07.0.0.02.0.111.1	5 14 21 7 12 0 6	104 22 105 17	1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 .	260 10 22 262 12
85:8,9 93:8 111:1	5:14,21 7:13 8:6	104:22 105:17	right-hand 177:12	260:18,22 262:12
119:13 127:25	8:17 9:3,4,6 13:14	106:3,12,22	ring 175:10	263:18 264:7,12
134:3,11,13,19,23	13:14 22:12 32:7	112:24 113:2	Rinsky 271:1	264:18 286:21
135:12,15,17	33:10 39:16 42:4	119:10 120:6,15	risk 3:6,13,22 4:23	risks 34:5 50:6
145:8 159:16	43:7 44:22 49:2	120:17 121:5,8,12	5:1,15,18,24 6:1,6	120:21 187:6
161:25 163:19	63:11 64:6 76:1	121:16,25 122:7	6:9,11,14 11:23	255:7 263:4,17,20
164:4 173:18	85:1 93:1 101:6	122:10,17,21	13:16,24 20:4,11	Ritz 269:19 278:19
175:20 182:3,17	110:21 119:1	123:1 124:1,9,16	20:13,18,20,21	<b>Ritz's</b> 135:18 183:5
183:4 195:15	134:7 143:19	125:10,20 126:4,7	33:2 34:16,22	183:6
197:12 206:20	144:16 146:8	128:25 129:12	35:3,4,24 36:2	<b>RMR</b> 294:3
207:9 212:2 214:7	152:1,20 154:6	132:8 133:6 134:3	39:11,14,17,24	road 16:11
224:10 252:1	158:13 163:13	138:8 143:10	40:8,17,22 43:1	<b>Robison's</b> 254:16
270:14,15,20,20	165:17 169:16	147:20 148:12	49:5 50:1 52:1,16	<b>Rodman</b> 258:24
270:23 275:21	171:2 173:4 175:1	149:5 150:19	52:20 56:1 73:18	<b>role</b> 14:13 19:14,21
277:25 278:14,15	176:1 184:23	151:5,6 154:16,19	73:22,23 74:4	22:25 37:9,15
278:18,23 290:11	198:1 201:2 213:6	154:24 156:21	76:3,12 81:1,12	42:20 112:11,13
290:13,14,18,22	222:3 225:16	157:18,20 158:3	81:16,24 83:12,16	151:16 256:14
reviewer 22:20	227:13 243:1	159:5 160:16	83:22 84:16,17	257:25
23:5,9,18 24:6	248:15 250:7	163:11 164:21	85:4,24 93:3 94:5	<b>Roman</b> 244:23
64:22 65:4 93:17	254:8 256:19,20	166:3,12,15,23	98:19 100:11,15	280:2
reviewer's 25:19	259:19 264:4	167:11 168:8	100:20 101:17	<b>Roos</b> 4:16 6:8
reviewers 21:24	267:1 272:15	169:4,25 171:10	104:10,19,20,21	50:16,19 85:2
23:12 24:7,9,13	273:5,6 277:16	176:9 177:8,19	104:21 109:1	92:5,16,18 106:15
24:18,21 25:3,6	286:20 293:1	184:9 185:7	110:22 112:22	122:2,5 201:3
25:14,24 27:14	297:9	188:16 199:12	114:8,16,18	269:9 281:1,9
64:22 65:7 93:20	<b>Rider's</b> 143:18	200:13,19,24	115:14 116:13	282:7 283:9 286:1
reviewing 24:7	<b>right</b> 10:11 14:9,14	201:9,19 205:16	117:12,23 118:8	Roos's 84:23
65:3 90:5 108:14	14:19,25 15:10	207:3,6 208:5,13	121:12 125:8,20	Ross 222:11
129:18 151:23	17:9 22:11 25:25	210:2,9,9 211:18	126:25 127:8,20	Rothman 31:6
152:5 154:13	37:10 38:5 40:16	213:14 215:7,14	127:22 128:6,17	rounds 27:5
158:20 172:14	41:21,22 44:5	216:8 218:1,5	128:18,21,24	<b>Roundup</b> 1:3 3:17
176:23 179:23	45:6 47:17 49:13	219:1,5,15,16	129:10,12,17,21	7:9 40:17,22 52:1
180:19 189:1	49:19,22,24 50:5	220:18 221:10	130:1,6,12 131:15	143:10 147:6
197:15 198:10	50:10,12,17,20	223:9,21 224:1,9	138:6 139:12	154:8 222:21
222:15 268:1	51:3,9,11,12 52:2	225:24 227:1,7	140:5,12,16	230:18 279:12
276:9 290:16	52:16 53:20 63:6	228:24,25 230:5	144:18 156:15	<b>RR</b> 51:7 125:25
<b>reviews</b> 187:14	65:25 66:4,4,11	230:21 236:3,23	169:19 194:14,15	<b>rules</b> 60:17
revised 25:23 27:4	66:16 67:5,9,23	239:2 240:20	199:10 200:12	
64:24	68:7,19 69:16	245:4,16 256:24	203:17 208:8,9,13	S
revision 25:16,17	70:11,21 74:15,22	258:11 259:1,5,13	210:2,6 214:19,20	<b>S</b> 2:1 3:4 7:1
138:12	76:13,17 79:12	259:15 260:4,11	214:22 215:2,23	<b>sadly</b> 252:20
<b>revisions</b> 26:4 27:6	86:10,16 87:17,23	261:19 262:3,9	216:2 225:18	<b>sample</b> 195:25
rich 231:17 232:2	88:7,19 92:1,20	263:9,21,24 272:6	226:19 227:14	196:3 284:20
<b>Richard</b> 4:7 174:12	95:12 96:4 97:6	273:2 279:5	253:10,24 254:22	Samuels 271:2
175:3,8 176:10	98:1,10 99:24	280:10 282:12	255:3,12,14 259:4	Saskatchewan
177:7 178:4	100:3,11,20	286:7 289:17	259:5,6,16,21	66:12 67:9
<b>Rider</b> 1:11 3:2,6	102:21,24 104:3	292:16	260:2,2,5,9,14,18	satisfied 29:25
				l

	•	ī	ī	
202:16	Sciences 66:24	see 9:21 10:20 21:6	selected 21:9 24:22	111:11
saw 12:23 104:19	scientific 22:16	22:25 34:22,25	60:25 112:23	several-page 179:6
104:21 118:14	36:22 42:16 79:15	35:7 37:20 44:21	206:1 223:8	<b>severe</b> 84:12
158:4	79:21 124:1,15	47:20 48:23 53:15	<b>selection</b> 91:1,13	sex 232:10
saying 19:2 89:18	164:19 166:14	54:20 55:23 61:18	self-administered	shame 241:12,22
101:16 180:23	167:4 170:7 180:9	65:18 66:7,21	217:15	291:9
204:13,16 209:21	187:23 241:22	68:14 70:25 71:24	self-reported	<b>sharing</b> 262:21
234:25 275:1	243:14 244:5,14	72:2 73:18,23	196:17	<b>sheet</b> 295:6,9,12
291:6,7	244:18 245:24	74:6 89:10,11	semen 279:20	297:7
says 14:15 27:17	255:21 257:8,18	92:5 94:25 95:19	semester 31:8	shift 265:20
37:13 43:19 71:22	262:21 274:2	102:14,21 104:14	sense 123:19	<b>shop</b> 159:4
81:22 91:7 95:5	291:23 292:11	105:20 107:2,3,8	190:12 251:10	<b>short</b> 143:4 165:25
107:2,6,15,19	scientifically 136:9	107:9 127:14	sent 10:12 21:23	180:16 181:24
137:23 155:16	178:9,23 180:24	130:12 131:11	25:1 240:11	220:12,24 272:7
157:9 164:2	181:4 290:3	136:24 137:25	sentence 14:11	shortcomings
171:24,25 188:17	292:14	139:9 140:25	27:9,23 70:25	146:1 252:6
198:18 201:14	scientist 61:23 88:5	141:25 152:25	71:16 72:16 73:2	shorthand 1:16
206:14 223:5,15	131:9 174:8	153:2,3,6 155:21	80:24 89:11 91:6	10:21 55:15
224:1,4,7 230:13	scientists 21:24	156:4,6 157:1	146:23 178:5	<b>shorts</b> 190:12
243:13 250:24	22:4,8 39:1 65:16	158:5 164:7	179:6 181:10	<b>show</b> 13:11 43:15
251:13 254:20	65:22 66:22 67:12	171:25 176:11	186:23 189:4	74:20 83:22 99:11
262:25 265:10,11	79:18 85:13 99:19	177:17 186:15	198:18 210:4	103:1 127:19
280:13 287:6	102:19 166:17	187:1 190:6,8	226:13 236:9	128:5,17 129:11
290:9	177:11 186:3	195:9 198:9	244:24 250:24	144:9 146:6
<b>ScD</b> 1:11 3:2 5:21	189:8,10	201:11 204:9,10	251:13 260:13	152:18 166:6
8:6 273:7 297:9	<b>scope</b> 10:19	206:24 207:3	262:24 282:13,17	169:14 174:22
Schernhammer	scrutinize 22:23	208:1,18 210:7,11	separate 97:16	175:21 208:4
185:14,20	Seaport 1:12	217:3 223:17,22	148:7 237:2	219:21 242:20
<b>Schinasi</b> 3:8 119:2	search 267:13	223:23,24 224:6,7	255:25	248:12 250:1
119:9 122:15	290:22	229:9 237:23	separately 115:13	256:16
125:4 127:18	searching 90:9	238:2,6 252:9,16	September 1:7 7:6	<b>showed</b> 17:7 74:10
130:21 132:21,22	second 17:17 91:9	254:25 265:6,23	138:12 238:23,24	125:19 126:17
133:8 271:3	124:7,9 140:2	282:8,10,15	239:1,3,18 248:8	128:24 144:14
School 3:21 4:6	157:14 173:13	288:24 292:7,13	288:7 292:25	206:11 255:16
44:13 148:20,21	211:20 218:17	seeing 34:5,19	294:6,18	showing 125:7
149:7 152:9 153:1	220:23 223:14	88:22 213:17	sequencer 169:10	144:22 157:2
153:15 154:21,24	225:6 228:22,23	227:9	series 242:13	256:17 292:14
169:17,23,24	230:10,11 232:21	seeking 131:23	seriously 22:4	shown 274:20
170:17,25 171:9	251:13	seen 44:21 45:4	service 188:20	287:5,15
171:11,12 172:18	Second-to-the-last	144:25 170:13	services 1:19 147:1	shows 11:21 61:3
173:25 174:2,24	210:4	172:8,15 175:17	<b>SESSION</b> 163:1	68:17,23 74:17
175:2,9 250:16	section 53:15 70:9	178:14 222:13	set 43:23 241:20	129:24 210:1
279:9	72:24 78:7 95:2	243:19 251:25	248:10 294:18	side 51:12 70:21
Schumacher 271:4	98:10 108:6,10	287:18,18 288:8	setting 37:21 105:3	80:20 89:3 98:10
science 15:18 16:7	140:2 201:12	288:13,17,20	191:12,16 214:16	257:15
36:21 61:2 132:6 157:24 171:15	244:23 251:4 264:20 265:3	290:21 <b>SEER</b> 271:5	<b>seven</b> 11:12 36:3 65:16 85:12 111:5	sign 23:18 295:8
137.24 171.13	204.20 203.3	SEER 2/1.3	05.10 65.12 111:5	signaling 271:9

_				
<b>signed</b> 181:9	<b>smart</b> 115:5	116:1 120:22	65:7 125:9,18	273:10,12,13
significance 17:9	<b>Smith</b> 152:8,11,15	131:22 148:23,25	127:12 151:24	states 1:1 7:11
58:1 69:12 78:24	153:1	172:10 183:8	156:15 201:24	156:1
87:12 255:20	<b>smoked</b> 166:17	191:2 202:12,16	237:11 257:10	statistical 17:9
256:14 258:6	<b>smokes</b> 39:17	203:13 213:19	275:23 276:8	69:11,20 75:15
263:13 269:22	116:16	227:9 236:14	283:6	78:24 81:18 87:12
significant 17:14	<b>smoking</b> 33:10,14	237:12,17 244:12	speculate 160:24	108:16,18 255:20
18:1,9,13 19:8,16	33:20 34:3 39:2,9	245:23 247:5	<b>spite</b> 70:10	256:14 263:13
19:18 69:8 73:5	39:11,23 40:4,9	253:23 258:2	spoken 62:24 96:12	269:22
74:11 78:10,16,18	100:18 109:6	264:21,25 280:5	96:16	statistically 17:14
79:2 86:25 87:6	116:10,12 117:21	288:4	<b>spot</b> 265:17	18:1,9,12 19:7,15
94:16 95:4,12	117:22 118:4	sound 104:25	sprayed 219:18,20	19:18 69:8 74:11
103:4,14,20	166:14 167:4	233:19	sprayers 210:19,20	78:16,18 79:2
139:11,12 257:12	smoking-lung	sounds 10:5 172:24	211:9,10	86:25 87:6 95:4
258:20 262:9	166:8 167:9	267:23	SS 294:2	95:12 103:4,13,19
263:3,9	social 187:24	source 222:14	St 66:24	257:11 258:20
Sigurdardottir	<b>Society</b> 268:13	224:1 245:3,15	stage 263:2	262:8 263:3,8
5:17 264:5	solely 127:23	279:12	stand 148:14	statistics 271:5
similar 142:7	solid 246:25 247:16	<b>space</b> 295:6	194:19	status 98:18 233:11
similarity 142:9	somebody 180:17	speak 16:9 22:7	standard 108:22	241:3 282:23,25
simply 60:16 75:11	219:4	24:23 60:4 128:2	109:9	staying 157:16
single 12:20 83:6	someone's 40:10,12	233:19 241:5	stands 119:24	264:23
126:13,17,19	somewhat 257:25	speakerphone	start 46:4,13,16	step 202:12
<b>Sir</b> 13:8	<b>Sorahan</b> 54:6 55:4	261:14	134:18 223:2	straight 282:7
sit 40:1 42:14 60:13	55:9 271:7	speaking 11:13	251:11	strategy 172:20
148:17 150:17	sorry 14:5 15:25	28:12 82:21 94:9	<b>started</b> 168:16	Street 2:12
site 109:3	18:6 37:7 57:8	speaks 9:22 72:22	268:1	strength 77:5
Sites 223:8	81:3 92:16 109:22	130:5 135:5	starting 195:16	228:25
sitting 159:4	109:24 111:16	137:19 138:25	282:13	strengthen 227:10
276:18 277:7	113:5 116:19	142:2 147:10	state 7:15 140:3	strengthens 159:17
<b>situation</b> 24:9,10	120:6 127:2 128:9	153:5 155:24	141:22 263:17	strengths 46:24
38:22,23 72:9,10	129:1 131:4 160:4	156:23 170:11	295:5	stress 157:15
237:15	174:15 187:19,20	172:7 176:14	stated 11:16 75:3	<b>strike</b> 81:10 194:16
six 24:8 65:15	190:9 210:3,8	186:14 213:16	76:14 86:1 131:7	236:6
85:12 111:5,11	215:10,17 216:9	223:12 242:17	156:25 167:21	striking 113:7
<b>sizable</b> 226:18	237:25 238:2,3	special 205:18	195:22 209:9	192:24
size 196:3	260:10 261:24	specific 6:4 35:20	289:19	strong 12:19,23
skimmed 41:5	264:3 265:17	39:6 55:12 56:25	<b>statement</b> 53:20,23	13:2,6,10 14:17
119:19	270:1 276:24	64:8 71:20 86:8	56:9 98:21 140:8	15:3,5 17:7 27:8
sleep 5:17 264:6,11	278:21 279:17	107:16 114:23	141:25 142:4,19	27:11,23 34:7
264:22 266:6	288:21	115:2 117:7	157:6 160:8	35:3 37:6,8 70:11
<b>slide</b> 168:9	sort 10:7 23:5,7	131:23 136:25	178:22 179:3,8	98:24 264:18,18
slides 134:15	27:1 28:25 47:2	147:16 184:18	180:14,22 181:17	265:9,15,15
slow 18:4 179:25	53:23 59:13 73:21	209:3,16 236:20	181:19 188:3,22	291:12
small 35:10 120:22	79:14 83:4 90:9	254:24 259:10	189:17 199:7	stronger 71:11
209:15 257:11	91:19 97:15 99:8	284:16	234:23 244:2,4,8	196:20 265:5,12
263:18	104:7 115:23	specifically 21:11	252:11,17 265:14	strongest 14:12
			<u> </u>	<u> </u>

# Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 108 of 114

Confidential - Subject to Protective Order

27:18 37:14 47:10	214:24 215:24	189:22,24 191:3	subheading 282:8	285:5
70:14 123:9 291:2	216:21,22,23	191:11,20 192:5	subject 1:8 242:12	supplementary
strongly 103:13	217:1 228:5 235:6	192:12,14,25	subjects 138:19	43:19
strucken 288:13	252:5,8,10 255:6	194:11 195:3,6,15	246:9	<b>support</b> 71:18
struggling 81:3	255:16 258:16	195:20,23 196:9	submit 91:25 241:9	143:8 260:8
student 39:15	262:25 263:14	196:11,15 197:12	241:11,16,16,17	supported 56:12
154:25 170:1	266:2 268:17	197:15,20 198:9	241:19	supportive 140:18
279:19 280:5,10	269:2	198:10,13,17	<b>submitted</b> 5:6 92:2	178:11,25 181:1,7
280:15	study 4:17,24 5:2	199:17 200:8,11	240:23 241:13	supports 143:20,20
students 29:20 30:8	5:15,16 6:2 12:17	200:21 201:1,6,8	242:23 243:4	<b>suppose</b> 205:23
30:9,10,13,24	12:19,20,23 14:1	201:15,25 202:6,8	244:25	241:4,18
149:23	14:12,17,22,24	202:12,19 203:8	Subscribed 297:16	supposed 245:14
studied 67:21	15:2,3 17:6 20:23	204:5,14 205:13	subscribes 21:20	sure 9:5,10 12:11
199:25 200:15	20:24 23:8 27:8	205:13,19,22	subsequent 13:3	14:8 15:7 22:23
217:10 246:22,24	28:22 35:11,25	206:9,12,23,25	123:11 210:16	35:13 37:18,25
studies 16:13,22,25	36:10 37:14 47:6	207:2,20 208:15	235:7 286:4	39:8 43:21 44:6
17:1 21:11 28:5	47:10,16 50:4,16	208:23 209:25	substance 297:6	45:16 48:20 49:1
33:19 34:5 36:24	50:19,20,24 51:1	210:16 211:17,19	substances 114:16	50:14 51:23 55:16
38:25 39:6 41:9	51:8,20 58:9,14	215:3 216:3 217:7	substantial 89:8,13	63:17,24 64:14
42:21 44:9 45:24	59:12 61:3,7,25	221:22 222:20	89:19,23	72:7 73:13 81:5
46:6,11,23,25	61:25 62:4,6,13	224:4 225:5,6,9	substantially	83:9 90:3 110:4
51:14 52:9,21	69:21 70:5,7,15	225:20,23 227:2,5	104:16 131:11	116:7 118:7,10
53:4 58:3 59:1	70:20 74:20,22	227:15 228:10	159:18	136:16 143:17
60:8,24 63:7,10	75:14 76:22 77:23	231:16 233:14	subtypes 138:21	162:1,6,6 163:20
69:24 71:3 76:17	78:25 79:12 80:25	234:22 236:4	209:4 237:11	169:1,14 170:3
76:23,25 79:7	81:11 83:7,10	250:1 251:7 254:4	<b>Sue</b> 171:19	172:13,19 173:3
84:13 99:8 101:17	84:6 88:1,18 90:8	254:21 256:2,11	suffers 126:21	174:11 179:22
102:15 106:14,14	90:14 92:1 98:22	257:13,18,23	sufficient 11:17	184:18 185:22
114:3,7,12 121:19	100:13,18 101:6	258:2,4,5,13,17	17:1 95:25 208:16	186:22 190:8
123:15 124:13,20	101:13,23,25	258:18 259:11,15	224:22	192:21 193:18,21
125:23 126:1	102:9 104:6 105:4	259:17,20,22	SUFFOLK 294:2	194:1,7 200:7,7
127:23 128:1,3,20	105:12,13,18	266:16 268:8,15	suggest 37:4	222:25 232:5
129:9,19,20	109:3 110:20	268:18,20,21,23	suggested 89:7	234:20 236:5
130:10,17 140:11	111:1,3,4 118:12	269:20,25 270:1	157:10 210:5	238:7 248:6
141:15,24 142:22	118:13,17,22	270:24 280:4	suggesting 36:13	249:25 252:18
143:2 144:2	122:6,9,13 124:19	281:4,9,20,21	suggests 91:10	260:25 261:6
145:12 146:2,3	124:25 125:1	283:9,17 284:15	suitability 245:13	264:1 268:3
156:12,17,20	126:2,3,9,12,14	285:23,24 286:1,4	290:10	271:10 282:19
157:2,4 159:20,25	126:21 127:10	286:11,22 287:2,8	sum 116:2	surfaces 251:16
160:2 164:25	130:21 131:14,16	290:2,3	summarize 168:10	252:14
168:16 178:18,18	131:17 134:2,6	study's 51:18 62:7	summary 121:3	surprised 38:2
181:21 193:3	142:8,9,11 143:6	studying 120:12	180:8 248:22	surrounded 183:22
196:13,14,16,21	143:8,19,20,23	260:1	263:11 268:14	surrounding 38:11
200:5,6,6 202:24	159:21,22 160:3,4	<b>sub-bullet</b> 138:18	280:7,13,23	susceptible 190:13
204:8 205:2,4,7	160:6,12,20 161:1	sub-types 138:7	supplemental 5:22	suspected 109:4
205:14,17 209:10	161:9,14 164:1,7	subgroup 6:12	183:6 277:10,17	sustainable 172:22
212:17 213:19,25	174:5,6 181:23	91:13 93:5	277:22 278:14,25	swear 8:3
	l	l	l	l

			1	
<b>Sweden</b> 156:18	208:1 211:21,23	215:6,12 223:22	terms 30:2 31:17	74:12 133:25
Swedish 76:16	222:24,25 223:3,5	224:25 237:10	32:11 62:7 82:13	136:13 145:16
159:19	223:6,14 224:8	241:3 249:22	113:14 128:19	180:1 185:9
switch 120:5 246:9	287:23	258:25 261:23	152:5 180:2 194:5	202:16 235:9
Switching 144:3	tables 290:14	274:25 284:23	217:19 228:13	237:20 240:9
sworn 8:7 294:7	take 18:17 25:19	talks 50:15 175:8	231:13 233:11	272:18 282:25
297:16	41:10 52:8 63:12	tapes 106:4	236:15 241:6	think 12:18 15:1,13
synergistic 115:19	63:14,16 76:21	taught 31:4,10	246:19 247:14	16:3 19:19,22
115:22 118:9	84:11 90:1 100:5	teach 29:20 30:7,17	252:11 256:3	20:12 21:19 22:15
synergy 115:24	105:19 106:4	115:1	266:12 281:23	22:18 23:1 24:17
synthesize 15:14	123:13 124:11	teaching 30:21	282:1,2	26:13 27:20 28:3
16:14 17:2 213:20	126:18 131:12	team 173:24	test 18:20 284:21	28:4 29:10 31:16
synthesizing 46:18	135:21 136:2	<b>Technologies</b> 2:19	<b>testified</b> 8:8 161:18	31:17 32:12 33:4
systematic 4:3 5:23	143:8 154:4,11	7:5	275:20 278:18	33:19 34:10,15
43:11 49:3 79:1	162:6 172:13	tell 18:16 60:9,21	289:16	36:21 38:10 40:2
89:25 91:12 92:10	178:2 179:15	65:25 66:3 72:24	testify 294:7	46:5,10,17 47:23
94:22 105:25	193:19 197:18	87:2 89:15 97:1,8	testifying 59:9	48:12 52:5 53:22
110:8,17 120:20	202:7 220:24	101:3,13 103:25	283:20	56:6 59:23 62:5
123:13,17 124:21	225:13 235:24	108:1,13 117:6	testimony 135:22	66:17,17 69:18
126:22 128:15	242:3 246:25	124:3 126:15,16	136:14 145:21	71:8 72:25 74:19
160:1 269:5	259:11 264:2	128:4 130:19	156:24 162:1	75:6,13 78:4,23
systemic 124:11	265:16 272:7	133:10 136:8	163:20 255:24	79:13 81:20 83:3
Systems 1:15	281:21 284:25	141:14 151:3	262:11 276:11	83:5 88:18,21
294:22	taken 41:15 63:21	159:3 163:24	281:8 292:10	89:24 90:6,12
Szklo 271:11	74:8 106:8 154:20	177:4 178:15	294:10	94:21 97:21
	162:10 221:6	179:4,7 180:13	testing 19:12	101:12 102:12
T	261:10 272:10	182:12 194:25	257:10,24	103:5 104:23
<b>T</b> 3:4 250:16 296:1	talk 9:21 18:3	206:21 224:14,17	text 245:1	105:1 110:2
<b>T-shirts</b> 189:25	31:24 79:18 81:23	229:19 231:12	textbook 30:25	118:19 119:20
<b>T.H</b> 3:16 154:7	82:22 92:22 103:6	232:3 234:19	31:6 258:25	123:6,18 124:18
171:9,11 174:23	108:21 109:14	240:21 243:22	271:11	125:23 127:21
tab 222:24	125:2 141:22	257:12 267:17,21	thank 8:25 48:15	131:8,22 132:12
table 17:16,18,20	192:12 195:5	268:2,3 279:23	54:5 63:18 66:21	132:17 133:2,6
18:8 21:7 68:10	202:11,16 217:14	291:15	92:20 125:15	138:2 139:5,15,17
68:14,25 70:21	218:18 279:6	<b>telling</b> 60:10	163:14 210:11	141:14 142:14,20
71:16 74:9 84:5	talked 41:11 97:23	200:12,14	238:8 262:2	142:20,24 143:15
86:4,6,20 99:17	106:15 116:9	tells 36:10 56:6	271:19 272:1,2	143:18 149:4
99:20,25 100:1	122:17 126:8	75:4 78:2,4,9	276:23,25 292:23	151:1 156:25
102:20 104:13	164:12 169:25	170:4	theoretically 35:8	159:11,17 167:17
106:1,25 107:3,5	205:7 212:12	<b>temporal</b> 169:10	thick 224:11	168:12 180:11,21
107:7,15,24 108:1	221:21,22 267:17	temporality 29:23	<b>thing</b> 41:4,6 48:9	181:19,23 183:8
110:9 112:19	talking 34:15	29:23 169:11	58:24,24 119:18	187:13 192:10,24
113:7 118:14	115:23 116:19,25	ten 100:2,7 111:12	119:20,20 120:7	194:10,24 196:19
121:2,9,14 125:6	117:8,9 127:9	232:4	157:17 192:24	202:18 203:20
126:23 127:2,17	141:12 168:15	ten-year 95:10,16	236:5,8 245:23	204:24 208:14,15
128:9,11,14	191:2 192:13	tend 226:20	265:19	209:9,20 211:1,14
129:12,23 207:22	203:20 204:1	term 81:16	things 30:15 61:11	220:13 228:4,7
	_	-		_

	1	1	I	1
230:22 233:16	189:19 192:2	toxicologists 57:18	220:8 226:22	253:2,4 254:5
234:24 236:7	201:18 210:15	toxicology 157:17	229:11,14 233:15	255:25 287:11,13
237:9,9 241:5,12	213:17 219:20	157:21	234:24 243:18	<b>type</b> 10:8 32:18
244:9,12 245:23	221:5,8 230:3,18	track 30:11 288:4	245:7 246:13	56:25 97:9
246:13 249:23	240:6 245:20	<b>Trade</b> 5:7 248:12	252:20 253:1	<b>typed</b> 70:22 168:7
252:2,4 253:8,13	253:5 261:9,12	248:16	255:22 256:3	262:24
253:21 255:6	267:14 268:22	tragedy 248:9	264:19 294:10	<b>types</b> 5:8 247:13
256:23 257:7,9	272:1,9,12 275:21	trained 197:1	<b>truth</b> 79:3 103:11	248:17
260:23 263:10	275:22 293:1	247:21	256:3 294:8	typewriting 294:9
265:13 266:3,12	times 24:7 36:3	<b>training</b> 67:18 99:5	truthfully 9:17	typical 24:2
266:13 275:13	62:9,16 79:10	194:3 201:22	<b>try</b> 10:2 88:11	typically 131:6
279:10 290:5,8	133:1 193:2 204:7	246:16	251:9 269:14	244:15 253:14
291:23 292:22	240:5 282:25	transcript 8:21	<b>trying</b> 17:2 29:12	
third 98:12 129:2	<b>timing</b> 143:1	295:14,15	58:16 59:6,11	<u>U</u>
198:18 279:18	title 76:15 77:17	transcription 297:5	72:6 105:3 109:23	<b>Uh-huh</b> 138:13
<b>thirty</b> 295:13	86:1 107:24 138:4	translate 263:18	115:8,9 117:18,19	UK 268:24
<b>Thomas</b> 54:5 55:4	168:9 185:8	travel 188:18	166:18 184:12	ultimately 25:18
thoroughly 119:21	287:17	TRAVERS 2:4	203:19 216:14	<b>unable</b> 190:21
thought 16:25 41:8	<b>titled</b> 3:17,19,23	<b>Traverse</b> 7:24,24	237:15 258:11	254:23
44:7 97:5 106:20	4:8,13 154:8	41:21,23,24 42:1	263:10	unadjusted 86:12
131:24 136:20	165:18 171:3	64:1,3 107:1	tumors 246:25	86:22 100:8 196:1
258:5 262:20	176:2 198:2	163:7,9 221:14,16	247:1,16	unaware 24:16
265:25 291:9	<b>tobacco</b> 39:17	261:15,16	turn 48:22 49:13	170:22
thoughtful 54:6	116:4 164:13,20	<b>treat</b> 37:21 248:1	53:12 68:9 71:13	uncle 39:16
<b>threats</b> 110:13	164:25 165:7,9	treatment 247:25	72:11 80:19 86:3	uncomfortable
three 62:9 65:15	167:10,12	tremendous 247:13	98:9 99:15 166:5	65:21
85:12 93:24 99:18	today 8:24 40:1	<b>trend</b> 17:21 18:20	226:9 236:1	unconstructive
102:17 111:5,11	42:15 60:13 172:3	trial 257:22 258:14	243:10 244:20	189:15
138:19 139:19	205:7 272:22	<b>trials</b> 258:1	tweet 5:14 256:18	unconvincing
185:10,25 262:25	273:23 274:5,12	trifluralin 128:25	256:20,24 257:6	186:25
269:1,8 280:1	276:12,19 277:8	129:3,4	tweeting 257:21	underestimated
threshold 258:21	277:25 287:5,19	tripled 48:9	<b>twice</b> 62:4 101:1,2	160:2
THURSDAY 1:7	Today's 7:5	<b>trouble</b> 166:18	<b>Twitter</b> 256:25	underneath 71:16
tie 47:2	told 125:23 159:2	true 12:25 26:8	257:2	107:5
<b>tight</b> 87:13	163:19 197:7	29:16 32:19 36:7	two 24:6 48:14	underpinning
tightly 35:2	toll-like 271:8	36:18 37:21 40:4	65:15 68:18,20,21	187:24
time 7:6 9:13 20:2	<b>Tom</b> 152:8,25	42:18 61:8 67:22	68:22 69:7 76:16	understand 9:14
23:4 31:4,10,25	top 90:18 102:12	71:10,21 72:20	76:22,25 85:11	10:12,23 14:24
32:1 39:5 40:15	128:11 177:12	79:8 81:24 89:14	86:14 93:24 97:16	15:25 51:24 52:12
41:14,17 42:2	188:16	91:2,16 94:2,6,11	108:22 111:4,10	58:2,13 59:3
48:7,8,14 54:23	topic 12:18 252:1	95:4 98:19,20	111:25 113:8	60:12 87:5 91:20
63:14,20,23 79:5	<b>topics</b> 144:3	99:21 104:11	114:15 118:20	100:16 103:12
90:16 106:7,10	<b>Toronto</b> 66:16	113:6 126:23	133:25 139:14	117:20 143:17
146:12 149:24	total 100:7 116:2	127:11,20 128:6	157:11 164:4,5,9	150:25 180:6
150:16 162:8	208:5	130:3 152:3 167:3	167:17 185:10,25	184:7 189:3
163:4 172:13	Toxicological	170:9,14,19 180:7	198:14 203:24	203:10 204:19
179:15 188:25	223:7	199:7,8 209:18	232:18 252:20	215:19 237:7
	<u> </u>	<u> </u>	<u> </u>	<u> </u>

10:191/1921   10:17:17.20 108:3   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:10   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193 13:193 13:192   10:18/32 13:193 13:192   10:18/32 13:193	220 22 24 25 4 24	105 15 20 100 2	116100010001	1040400	1 220 10			
289-22   289-23   289-22   289-23   2	239:22,24 276:21	107:17,20 108:3	116:18,23 130:24	104:9 109:2,3	228:19			
understood 68:6         198:3.21 199:3.9         149:15 151:12         variety 30:15 47:11         voice 80:13         Volume 3:18 4:5           199:22         20:016 207:24         164:3 165:10         233:17 23:28         33:177 33:8         Volume 3:18 4:5           20:11 229:5         20:17:6,17 218:47         183:14,24 190:3         135:1 169:3         150:8 152:25           unfair 189:14         218:8,11 219:12         191:13,21,24         170:18 186:4         150:8 152:25           Uniform 5:5         219:15,17 225:19         195:4,21 196:12         239:23 281:16         150:8 152:25           United 1: 7:11         228:17 231:14,19         202:4 210:23         90:21 117:8         vary 25:12 72:9           University 66:12,16         286:11,21 291:20         251:23 252:21         290:3         290:3         117:8           174:15 175:9         249:25         249:25         211:4,11 215:15         259:1,23 252:21         259:1,23 252:21           178:2 516:13         249:25         249:25         249:25         271:105:7 255:21         270:1 588:24         270:15 287:24         270:15 287:24         288:16 289:13,15         271:105:7 255:21         270:15 287:24         270:15 287:24         484k1:10 258:22         271:105:7 255:21         270:15 287:24         270:15 287:24         4814:17 291:12         270:1	$\mathcal{C}$							
methical 199:20		7						
199:22   mexposed 68:19   208:12 209:15   170:21 177:3   170:18 177:3   150:28 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 152:25   150:8 150:8 150:8 152:25   150:8 150:8 150:8 152:25   150:8 150		, , , , , , , , , , , , , , , , , , , ,						
unexposed 68:19         208:12 209:15         170:21 177:3         various 99:20         150:8 152:25           200:11 229:2         217:16,17 218:4,7         183:14,24 190:3         135:1 169:3         150:18 152:25           Uniform 5:5         219:15,17 225:19         195:4,21 196:12         239:23 281:16         voted 150:9,18           United 1: 7:11         228:17 23:14,19         228:17 23:14,19         228:17 23:14,19         228:17 23:14,19         228:17 23:14,19         228:12 28:37         228:12 28:37         221:4.11 215:15         290:21 117:8         wulnerable 219:24           university 66:12,16         67:8 148:4,8,21         46:10 77:3 78:23         226:11,2 1291:20         253:20 255:5,23         259:16,20 260:3,8         26:12,32 252:11         W								
220:11 229:5 unfair 189:14 Uniform 5:5 242:22 243:3 United 1:1 7:11 university 66:12,16 67:8 148:4,8,21 148:24 155:6 174:15 175:9 177:8 250:2 unknown 33:4,6 unpublished 47:16 124:25 161:13 218:22 245:2,6,11 245:16,20 246:2,4 274:13,21 290:8 unquote 263:5 untouched 167:23 untrained 192:6 unsubuls 83:5 240:3 unty 25:12 29:1  245:16,20 246:2,4 274:13,21 290:8 Unquote 263:5 untrained 192:6 unsubuls 83:5 240:3 untrained 192:6 unsubuls 84:10 untrained 192:								
unfair 189:14         218:8,11 219:12         191:13,21,24         170:18 186:4         voted 150:9,18           Uniform 5:5         219:15,17 225:19         199:34,21 196:12         239:23 281:16         239:23 281:16         239:23 281:16         wulnerable 219:24           United 1:1 7:11         228:17 231:14,19         202:4 210:23         90:21 117:8         W         W           104:19         281:22 283:1         217:11 247:3         211:4,11 215:15         196:21         wait 80:21 146:13         wait 80:21 146:13 <td></td> <td></td> <td></td> <td></td> <td></td>								
Uniform 5:5 242:22 243:3 United 1:1 7:11 univariate 104:1,5 104:19 university 66:12,16 67:8 148:4,8,21 148:24 155:6 174:15 175:9 1778: 250:2 unknown 33:4,6 unpublished 47:16 218:22 245:2,6,11 245:16,20 246:2,4 274:13,21 290:8 unquote 263:5 untouched 167:23 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287: 129:111 upward 141:8 Urea 129:11 urology 21:16 24:3 28:12 24:13,24 S3:2,10 S		, , , , , , , , , , , , , , , , , , , ,	′		, ,			
242:22 243:3		,			*			
United 1:1 7:11		,	· · · · · · · · · · · · · · · · · · ·		vulnerable 219:24			
W2:10				•	***			
104:19		,						
university 66:12,16         286:11,21 291:20         255:23 255:21         vasectomy 5:15         walk 47:4         walk 47:10         walk 41:10 258:22         walk 41:10 258	*	7	,					
67:8 148:48,8,21 148:24 155:6 174:15 175:9 177:8 250:2 unknown 33:4,6 unpublished 47:16 124:25 161:13 218:22 245:2,6,11 245:16,20 246:2,4 274:13,21 290:8 unctouched 167:23 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287:1 291:11 upward 141:8 128:1 29:11 upward 141:8 Urea 129:11 urology 21:16 24:3 38:2,10 urology 21:16 24:3 38:1,10 27:2 28:8 30:24 33:17,22 35:22 86:10 88:19  useful 16:17 17:3 46:10 77:3 78:23 valid 52:14 58:5 77:1 105:7 255:21 validate 284:19 version 47:25 48:2 validate 128:19 version 47:25 48:2 validate 284:19 validate								
148:24 155:6		*			C			
T74:15 175:9	67:8 148:4,8,21		,	· · · · · · · · · · · · · · · · · · ·				
177:8 250:2 unknown 33:4,6 unpublished 47:16 124:25 161:13 218:22 245:2,6,11 245:16,20 246:2,4 274:13,21 290:8 unquote 263:5 untrained 192:6 unusual 83:5 240:3 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287:1 291:11 upward 141:8 Urea 129:11 urology 21:16 24:3 24:4 28:14 Usalidate 284:19 validate 284:19 validated 284:12 validation 71:3 validities 105:12 validities 105:12 validity 16:15 46:8 51:19 52:22 58:10 59:1 60:9 62:7 69:13,15 87:4 69:13,15 87:4 69:13,15 87:4 09:113 113 32:9 33:12 33:25 34:14 35:18 33:25 34:14 35:18 33:25 34:14 35:18 33:25 34:14 35:18 32:11 16:12 23:10 44:5 45:19 63:14 65:14 71:17 79:11 246:8 143:17 246:15 46:8 51:19 52:22 58:10 59:1 60:9 62:7 69:13,15 87:4 09:1 10:13 121:20 15:11 16:8 18:15 20:8 22:6 23:14 24:14 26:1,9 27:12,16 29:6 31:13 32:9 33:12 33:25 34:14 35:18 36:8 38:6,21 39:10,19 40:6,19 42:7,10 43:2 53:5 53:8,21 56:23 24:4 28:14 USA 156:18 use 3:12 4:13,24 57:6,9,21 58:8 57:6,9,21 58:8 57:6,9,21 58:8 57:6,9,21 58:8 61:10 62:1 65:17 67:13,24 74:23 79:23 80:4,15 67:13,24 74:23 79:23 80:4,15 82:1 83:2 88:8 83:17,22 35:22 61:17 69:7 73:19 82:1 83:2 88:8 84:19 validate 284:19 validated 284:12 270:15 287:24 28:6:16 289:13,15 289:22 versions 288:14 versus 207:24 171:4 vertical 49:21 50:4 verted 243:16 224:6 05:14 71:17 79:11 124:6,8 143:17 146:13,23 162:4,5 171:8 173:11 124:24 178:4 188:1 100:13 110:13 121:20 124:6 05:14 71:17 79:11 124:6,8 143:17 146:13,23 162:4,5 171:8 173:11 126:5 110:4 289:22 28:62:7 29:13 206:10 244:6 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 125:14:06:15 46:8 05:14 71:17 79:11 125:14:06:15 46:8 05:14 71:17 79:11 124:06:15 46:8 05:14 71:17 79:11 122:1 16:15 46:8 05:14 71:17 79:11	148:24 155:6	46:10 77:3 78:23	<b>valid</b> 52:14 58:5	· ·				
unknown 33:4,6         ungublished 47:16         134:23 264:25         44:5 45:19 63:14           124:21:25 16:113         218:22 245:2,6,11         245:16,20 246:2,4         27:13 290:8         V         Validate 284:19         validate 284:12         288:16 289:13,15         65:14 71:17 79:11         88:1 106:15 110:4         65:16:29 29:1,6         28:11 10:8 18:15         20:8 22:6 23:14         24:14 26:1,9         27:12,16 29:6         28:11 25:14:20         15:11 16:8 18:15         20:8 22:6 23:14         20:8 22:6 23:14         20:8 22:6 23:14         20:13 20:10         24:6 29:6         28:14 29:13         10:13 12:20         16:25 27:24         24:69:23:19         17:24:68:10:10:13         17:24:18 3:19         289:22         28:14         42:45:6         29:10:13         10:13         12:24:68:143:17         289:22         28:14         28:11 00:13         12:24:68:143:17         28:12:40:23:19         12:24:69:23:19         22:24:69:23:19         22:24:69:23:19         22:25:31.9 <th col<="" td=""><td></td><td>249:25</td><td></td><td>verbalize 10:9</td><td></td></th>	<td></td> <td>249:25</td> <td></td> <td>verbalize 10:9</td> <td></td>		249:25		verbalize 10:9			
unpublished 47:16         usually 81:24         validated 284:12         270:15 287:24         65:14 71:17 79:11           124:25 161:13         218:22 245:2,6,11         245:16,20 246:2,4         274:13,21 290:8         validities 105:12         validities 105:12         288:16 289:13,15         28:10 106:15 110:4           124:25 161:13         V         validities 105:12         validities 105:12         versions 288:14         124:66.8 143:17         124:66.19 49:21 50:4         versions 288:14         versions 288:14         124:66.19 49:21 50:4         versions 288:14         versions 288:14 <td <="" colspan="3" td=""><td>177:8 250:2</td><td>user 230:21</td><td>290:3</td><td>version 47:25 48:2</td><td></td></td>	<td>177:8 250:2</td> <td>user 230:21</td> <td>290:3</td> <td>version 47:25 48:2</td> <td></td>			177:8 250:2	user 230:21	290:3	version 47:25 48:2	
124:25 161:13   218:22 245:2,6,11   245:16,20 246:2,4   274:13,21 290:8   245:16,20 246:2,4   274:13,21 290:8   245:16 263:5	<b>unknown</b> 33:4,6	users 70:24 192:6	validate 284:19	134:23 264:25				
218:22 245:2,6,11 245:16,20 246:2,4 274:13,21 290:8 unquote 263:5 untouched 167:23 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287:1 291:11 upward 141:8 Urea 129:11 urologists 37:20,24 38:2,10 urology 21:16 24:3 28:14 28:18 28:19 289:22 versions 288:14 versus 207:24 171:8 173:11 174:24 178:4 vertical 49:21 50:4 vetted 243:16 226:13 250:1 video 7:8 videographer 7:3,5 276:21 valuation 180:9 valua		usually 81:24	validated 284:12	270:15 287:24				
245:16,20 246:2,4 274:13,21 290:8 unquote 263:5 untouched 167:23 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287:1 291:11 upward 141:8 Urea 129:11 urologists 37:20,24 38:2,10 urology 21:16 24:3 38:2,10 urology 21:16 24:3 38:2,10 24:4 28:14 USA 156:18 use 3:12 4:13,24 5:2 6:2 26:22 27:2 28:8 30:24 33:17,22 35:22 67:13,24 74:23 33:17,22 35:22 66:10 88:19  Validity 16:15 46:8 51:19 52:22 58:10 59:1 60:9 62:7 69:13,15 87:4 vertical 49:21 50:4 59:1 60:9 62:7 69:13,15 87:4 vertical 49:21 50:4 59:1 60:9 62:7 69:13,15 87:4 vertical 49:21 50:4 171:8 173:11 174:24 178:4 184:4 189:24 208:23 221:1 184:4 189:24 208:23 221:1 244:6 vice-versa 247:17 video 7:8 videographer 7:3,5 7:22 8:2 41:13,16 63:19,22 106:6,9 242:14 28:14 24:7,10 43:2 53:5 78:21 95:8,15 103:18 131:13 208:19 262:15 Valuation 180:9 value 46:6 62:10 78:21 95:8,15 103:18 131:13 208:19 262:15 Valuation 180:9 value 46:6 62:10 77:2 28:8 30:24 33:17,22 35:22 61:17 69:7 73:19 82:1 83:2 88:8 81:1 83:2 88:8 81:1 83:2 88:8 81:1 83:2 88:8 81:1 100:13 110:13 121:20 244:6 vertical 49:21 50:4 184:4 189:24 208:23 221:1 226:13 250:1 226:5 276:21 276:21 28:4 13,16 63:19,22 106:6,9 272:8,11 29:24 Valuation 180:9 value 46:6 62:10 77:8 21 72:18 79:15 81:15 83:16 132:1 172:16 205:1 258:12,20 291:10 205:1 258:12,20 291:10 206:13 250:1 244:6 208:23 221:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 206:13 250:1 244:6 226:13 250:1 226:13 250:1 226:5 276:21 228:2 81:13:16 23:19 244:6 208:13 25:21 25:29:16 26:5 276:21 28:2 82:18:13:16 20:11 15:11 10:13 121:20 21:17 24:12 24:14:6 19:16 25:29:16 26:5 276:21 25:11 29:2 262:5 272:2 8:2 80:11 25:21 129:2 262:5 272:2 8:2 80:14:1 25:21 129:2 262:5 272:2 8:2 80:14:1 25:21 129:2 262:5 272:2 8:2 80:14:1 25:21 129:2 262:15 272:2 8:2 80:14 272:2 8:2 80:14 272:2 8:2 80:14 272:2 8:2 80:14 272:2 8:2 80:14 272:2 8:2 80:14 272:	124:25 161:13	<b>utero</b> 253:10	validation 71:3	288:16 289:13,15				
274:13,21 290:8 unquote 263:5 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287:1 291:11 upward 141:8 Urea 129:11 urologists 37:20,24 38:2,10 urology 21:16 24:3 38:2,10 urology 21:16 24:3 25:1 4:13,24 38:2,10 urology 21:16 24:3 38:2,10 27:2 28:8 30:24 38:2,10 38:3 38:6,21 38:2,10 28 38:6,21 39:10,19 40:6,19 24:4 28:14 25:2 58:10 253:19 26:17 26:18 59:22 58:10 59:1 60:9 62:7 69:13,15 87:4 88:1 100:13 110:13 121:20 160:1 186:7 208:16 252:7 208:16 252:7 208:16 252:7 256:11 257:13,19 24:4 26:17 62:5 70:1 24:4 26:18 36:8 38:6,21 39:10,19 40:6,19 24:4 28:14 25:2 6:2 26:22 37:2 28:8 30:24 33:17,22 35:22 37:2 28:8 30:24 33:17,22 35:22 38:2 18:3 28:8 86:10 88:19  Valuation 180:9 Valuat	218:22 245:2,6,11		validities 105:12	289:22	,			
unquote 263:5 untouched 167:23 untrained 192:6 unusual 83:5 240:3 updated 48:3 160:25 229:1,6 287:1 291:11 upward 141:8 Urea 129:11 urologists 37:20,24 38:2,10 urology 21:16 24:3 24:4 28:14 22:7,10 43:2 53:5 25:2 27:2 28:8 30:24 42:14 26:1,9 42:7,10 43:2 53:5 25:2 27:2 28:8 30:24 33:17,22 35:22 61:17 69:7 73:19 81:15 83:16 86:8 86:10 88:19         Vaccination 3:24 171:4 59:16 69:13,15 87:4 vetted 243:16 243:16 244:6 vetted 243:16 244:6 vetted 243:16 244:6 vice-versa 247:17 video 7:8 videographer 7:3,5 25:9,16 266:5 27:10 256:11 257:13,19 video 7:8 videographer 7:3,5 7:22 8:2 41:13,16 63:19,22 106:6,9 162:7 163:3 221:4 221:7 261:8,11 272:8,11 292:24 videography 8:21 ViDEOTAPED 133:17,22 35:22 79:23 80:4,15 82:1 83:2 88:8 94:19 97:7 113:22 86:10 88:19         valuation 180:9 value 46:6 62:15 variability 247:14 variable 61:19,19 214:18 215:1,4 216:1,4 variables 21:4,7         Videography 8:21 valuation 180:9 value 46:6 62:15 variability 247:14 variables 21:4,7         ViDEOTAPED 104:24 113:25 11:10 viewed 57:14 variables 21:4,7         valuation 180:9 value 46:6 62:15 variability 247:14 variable 61:19,19 214:18 215:1,4 216:1,4 variables 21:4,7         Videography 8:21 valuation 180:9 value 46:6 62:15 variability 247:14 variables 21:4,7         ViDEOTAPED 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 104:24 115:3,6 105:3 1	245:16,20 246:2,4		<b>validity</b> 16:15 46:8	versions 288:14	*			
untouched         167:23         171:4         69:13,15 87:4         vertical 49:21 50:4         184:4 189:24         208:23 221:1         208:13 25:21         208:13 25:21         208:13 25:21         208:13 25:21         208:13 25:21         208:16 25:27	274:13,21 290:8		51:19 52:22 58:10	versus 207:24				
untrained 192:6         vaccines 172:21         88:1 100:13         vetted 243:16         208:23 221:1         224:4:6         226:13 250:1         208:23 221:1         228:22:1         228:12:1         228:12:1	unquote 263:5		59:1 60:9 62:7					
unusual 83:5 240:3         vague 11:25 14:20         110:13 121:20         244:6         226:13 250:1           updated 48:3         160:25 229:1,6         20:8 22:6 23:14         20:2:13 206:10         video 7:8         276:21           287:1 291:11         24:14 26:1,9         208:16 252:7         videographer 7:3,5         videographer 7:3,5         wanted 14:8 107:1           Urea 129:11         31:13 32:9 33:12         33:25 34:14 35:18         256:11 257:13,19         62:5 70:1         63:19,22 106:6,9         63:19,22 106:6,9         62:5 50:1         42:7 163:3 221:4         wants 245:22         wants 245:22         wants 245:22         want 41:6 91:16         91:16         32:1 72:16         91:16         92:17 261:8,11         93:1 72:2 8:2 41:13,16         93:1 72:2 8:2 41:13,16         93:1 72:2 8:2 41:13,16         93:1 72:2 8:2 41:13,16         93:1 72:2 8:2 41:13,16         93:1 72:2 8:2 106:6,9         93:1 72:2 8:2 106:6,9         93:1 72:2 8:2 106:6,9         93:1 72:2 8:2 106:6,9         93:1 72:2 8:2 106:6,9         93:1 72:2 8:1 8:2         93:1 72:2 8:2 8:1         93:1 72:2 8:2 8:1         93:1 72:2 8:2 8:1         93:1 72:2 8:2 8:2         93:1 72:2 8:2 8:2         93:1 72:2 8:2 8:2         93:1 72:2 8:2 8:2         93:1 72:2 8:2 8:2 8:2         93:1 72:2 8:2 8:2 8:2         93:1 72:2 8:2 8:2 8:2         93:1 72:2 8:2 8:2 8:2         93:1 72:2 8:2 8:2 8:2         93:1 72:2 8:2 8:2 8:2         93:1 72:2	untouched 167:23		69:13,15 87:4	vertical 49:21 50:4				
updated 48:3         15:11 16:8 18:15         160:25 229:1,6         20:8 22:6 23:14         20:213 206:10         vice-versa 247:17         252:9,16 266:5           287:1 291:11         24:14 26:1,9         208:16 252:7         video 7:8         276:21           upward 141:8         27:12,16 29:6         208:16 252:7         video 7:8         video 7:8           urologists 37:20,24         31:13 32:9 33:12         33:25 34:14 35:18         62:5 70:1         62:5 70:1         62:5 70:1         62:5 70:1         62:5 70:1         62:7 163:3 221:4         63:19,22 106:6,9         63:19,22 106:6,9         62:5 70:1         62:5 70:1         62:5 70:1         62:5 70:1         62:7 163:3 221:4         63:19,22 106:6,9         78:21 95:8,15         78:21 95:8,15         78:21 95:8,15         78:21 95:8,15	untrained 192:6		88:1 100:13	vetted 243:16				
20:8 22:6 23:14   20:8 22:6 23:14   20:13 206:10   20:8 22:6 23:14   20:13 206:10   20:8 22:6 23:14   20:13 206:10   20:8 16 252:7   20:8 18 22 20:13 206:10   20:8 16 252:7	unusual 83:5 240:3	O	110:13 121:20	244:6				
287:1 291:11  upward 141:8 Urea 129:11  urologists 37:20,24 38:2,10  urology 21:16 24:3 24:14 26:1,9 256:11 257:13,19 valuable 46:17 36:8 38:6,21 39:10,19 40:6,19 42:7,10 43:2 53:5 USA 156:18 use 3:12 4:13,24 5:2 6:2 26:22 27:2 28:8 30:24 33:17,22 35:22 61:17 69:7 73:19 81:15 83:16 86:8 81:15 83:16 86:8 86:10 88:19  208:16 252:7 256:11 257:13,19 valuable 46:17 62:5 70:1 62:5 70:1 62:5 70:1 62:5 70:1 valuation 180:9 value 46:6 62:10 78:21 95:8,15 103:18 131:13 208:16 252:7 256:11 257:13,19 valuation 180:9 value 46:6 62:10 78:21 95:8,15 103:18 131:13 VIDEOTAPED 1:10 valuation 180:9 value 46:6 62:10 78:21 95:8,15 103:18 131:13 VIDEOTAPED 1:10 value 60:6,10 74:21 141:11 159:23 variability 247:14 variable 61:19,19 214:18 215:1,4 280:19 216:1,4 variables 21:4,7 Virginia 2:6  videographer 7:3,5 7:22 8:2 41:13,16 63:19,22 106:6,9 162:7 163:3 221:4 vants 245:22 Wants 245:22 Wasn't 41:6 91:16 132:1 172:16 205:1 258:12,20 291:10 value 46:6 62:10 78:21 95:8,15 103:18 131:13 208:16 252:7 7:22 8:2 41:13,16 63:19,22 106:6,9 162:7 163:3 221:4 Videographer 7:3,5 Vanted 14:8 107:1 110:18 189:22 262:5 Vante 46:6 62:10 78:21 95:8,15 103:18 131:13 VIDEOTAPED 1:10 value 46:6 62:5 Variability 247:14 variable 61:19,19 214:18 215:1,4 280:19 214:18 215:1,4 Virginia 2:6 Videographer 7:3,5 Valuation 180:9 221:7 261:8,11 27:28,11 292:24 Videographer 7:3,5 Valuation 180:9 221:7 261:8,11 27:28,11 292:24 Videographer 7:3,5 Valuation 180:9 221:7 261:8,11 27:10:18 189:22 262:5 Variability 247:14 Videographer 7:3,5 Valuation 180:9 208:19 262:5 Valuation 180:9 208:19 262:5 Valuation 180:9 208:19 262:5 Videographer 7:3,5 Valuation 180:9 208:19 26:18 110:18 189:22 262:5 Valuation 180:9 208:19 26:18 110:18 189:22 262:5 Valuation 180:9 208:19 26:18 110:18 189:22 262:5 Valuation 180:9 208:19 26:18 132:1 172:16 205:1 258:12 208:19 26:15 110 205:1 258:12 208:19 26:15 130:18 131:13 110:18 18:9:22 26:15 110:18 189:22 26:15 110:18 189:22 26:15 110:18 189:22 262:5 Valuation 180:9 208:19 26:18 132:1 172:16 209:1 200:1 200:1 200:1 200:1 200:1 200:1 200:1 200:	updated 48:3		160:1 186:7	vice-versa 247:17	The state of the s			
upward 141:8         27:12,16 29:6         256:11 257:13,19         7:22 8:2 41:13,16         110:18 189:22         262:5           urologists 37:20,24         33:25 34:14 35:18         256:11 257:13,19         7:22 8:2 41:13,16         110:18 189:22         262:5           urology 21:16 24:3         39:10,19 40:6,19         42:7,10 43:2 53:5         valuation 180:9         221:7 261:8,11         Washington 2:12         Washington 2:12           USA 156:18         53:8,21 56:23         53:8,21 56:23         78:21 95:8,15         Videography 8:21         VIDEOTAPED         132:1 172:16         205:1 258:12,20           use 3:12 4:13,24         57:69,21 58:8         61:10 62:1 65:17         Vancouver 66:25         Variable 61:19,19         view 60:6,10 74:21         way 19:1,20 77:3,5           27:2 28:8 30:24         79:23 80:4,15         82:1 83:2 88:8         94:19 97:7 113:22         214:18 215:1,4         280:19         241:17 244:12         79:15 81:15 83:16           86:10 88:19         113:25 114:10,20         variables 21:4,7         Virginia 2:6         130:23 15:18	160:25 229:1,6		202:13 206:10	video 7:8				
Urea 129:11         31:13 32:9 33:12         valuable 46:17         63:19,22 106:6,9         262:5           38:2,10         36:8 38:6,21         39:10,19 40:6,19         42:7,10 43:2 53:5         valuation 180:9         221:7 261:8,11         Washington 2:12           24:4 28:14         42:7,10 43:2 53:5         78:21 95:8,15         103:18 131:13         272:8,11 292:24         wasn't 41:6 91:16           USA 156:18         53:8,21 56:23         103:18 131:13         208:19 262:15         VIDEOTAPED         205:1 258:12,20           5:2 6:2 26:22         61:10 62:1 65:17         67:13,24 74:23         variability 247:14         variability 247:14         variable 61:19,19         241:17 244:12         way 19:1,20 77:3,5           31:15 83:16 86:8         94:19 97:7 113:22         216:1,4         216:1,4         viewed 57:14         125:21 129:2           86:10 88:19         113:25 114:10,20         variable 51:4,7         Virginia 2:6         130:23 151:18	287:1 291:11		208:16 252:7	videographer 7:3,5				
urologists 37:20,24         33:25 34:14 35:18 36:8 38:6,21         62:5 70:1         162:7 163:3 221:4         wants 245:22         Washington 2:12           urology 21:16 24:3 24:4 28:14         39:10,19 40:6,19 42:7,10 43:2 53:5         42:7,10 43:2 53:5         78:21 95:8,15         272:8,11 292:24 videography 8:21         wasn't 41:6 91:16           USA 156:18 use 3:12 4:13,24 5:26:22 27:2 28:8 30:24 33:17,22 35:22 61:10 62:1 65:17 69:7 73:19 81:15 83:16 86:8 81:15 83:16 86:8 86:10 88:19         61:10 62:1 65:17 69:7 73:19 82:1 83:2 88:8 94:19 97:7 113:22 113:25 114:10,20         Vancouver 66:25 variables 21:4,7         videography 8:21 videography 8:21 113:25 114:10,20         water 167:22 221:1 way 19:1,20 77:3,5 79:15 81:15 83:16 104:24 115:3,6 125:21 129:2 130:23 151:18	<b>upward</b> 141:8		256:11 257:13,19	7:22 8:2 41:13,16				
38:2,10       36:8 38:6,21       valuation 180:9       221:7 261:8,11       Washington 2:12         urology 21:16 24:3       39:10,19 40:6,19       value 46:6 62:10       272:8,11 292:24       wasn't 41:6 91:16         USA 156:18       53:8,21 56:23       53:8,21 56:23       103:18 131:13       VIDEOTAPED       205:1 258:12,20         use 3:12 4:13,24       57:6,9,21 58:8       61:10 62:1 65:17       Vancouver 66:25       View 60:6,10 74:21       water 167:22 221:1         27:2 28:8 30:24       67:13,24 74:23       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         33:17,22 35:22       79:23 80:4,15       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         81:15 83:16 86:8       94:19 97:7 113:22       214:18 215:1,4       280:19       280:19         86:10 88:19       113:25 114:10,20       variables 21:4,7       Virginia 2:6       130:23 151:18	Urea 129:11		valuable 46:17	63:19,22 106:6,9				
urology 21:16 24:3 24:4 28:14         39:10,19 40:6,19 42:7,10 43:2 53:5 53:5 53:8,21 56:23 53:8,21 56:23 57:6,9,21 58:8 57:6,9,21 58:8 57:2 28:8 30:24 33:17,22 35:22 61:17 69:7 73:19 81:15 83:16 86:8 86:10 88:19         value 46:6 62:10 78:21 95:8,15 78:21 95:8,15 103:18 131:13 208:19 262:15 78:21 95:8,15 103:18 131:13 208:19 262:15 78:21 92:24 videography 8:21 78:21 95:8,15 11:10 78:21 92:24 78:21 95:8,15 103:18 131:13 208:19 262:15 78:21 92:24 78:21 95:8,15 11:10 78:21 92:24 78:21 95:8,15 11:10 78:21 92:24 78:21 95:8,15 11:10 78:21 92:24 78:21 95:8,15 11:10 78:21 92:24 78:21 95:8,15 11:10 78:21 92:24 78:21 97:21 97:21 97:21 97:21 97:21 97:21 97:22 97:21 97:22 97	urologists 37:20,24		62:5 70:1	162:7 163:3 221:4				
24:4 28:14       42:7,10 43:2 53:5       78:21 95:8,15       videography 8:21       132:1 172:16         USA 156:18       53:8,21 56:23       57:6,9,21 58:8       208:19 262:15       VIDEOTAPED       291:10         use 3:12 4:13,24       61:10 62:1 65:17       Vancouver 66:25       view 60:6,10 74:21       water 167:22 221:1         27:2 28:8 30:24       67:13,24 74:23       variable 61:19,19       241:17 244:12       vay 19:1,20 77:3,5         33:17,22 35:22       79:23 80:4,15       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         81:15 83:16 86:8       94:19 97:7 113:22       216:1,4       viewed 57:14       viewed 57:14         86:10 88:19       113:25 114:10,20       variables 21:4,7       Virginia 2:6       130:23 151:18	38:2,10	,	valuation 180:9	221:7 261:8,11	$\mathbf{c}$			
USA 156:18       53:8,21 56:23       103:18 131:13       VIDEOTAPED       205:1 258:12,20         use 3:12 4:13,24       57:6,9,21 58:8       208:19 262:15       View 60:6,10 74:21       water 167:22 221:1         5:2 6:2 26:22       61:10 62:1 65:17       Vancouver 66:25       view 60:6,10 74:21       water 167:22 221:1         27:2 28:8 30:24       79:23 80:4,15       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         61:17 69:7 73:19       82:1 83:2 88:8       94:19 97:7 113:22       216:1,4       viewed 57:14       104:24 115:3,6         86:10 88:19       113:25 114:10,20       variables 21:4,7       Virginia 2:6       130:23 151:18	<b>urology</b> 21:16 24:3	, ,	<b>value</b> 46:6 62:10	272:8,11 292:24				
use 3:12 4:13,24       57:6,9,21 58:8       208:19 262:15       1:10       291:10         5:2 6:2 26:22       61:10 62:1 65:17       Vancouver 66:25       view 60:6,10 74:21       water 167:22 221:1         27:2 28:8 30:24       79:23 80:4,15       variability 247:14       141:11 159:23       vay 19:1,20 77:3,5         33:17,22 35:22       79:23 80:4,15       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         61:17 69:7 73:19       82:1 83:2 88:8       214:18 215:1,4       280:19       104:24 115:3,6         81:15 83:16 86:8       94:19 97:7 113:22       216:1,4       viewed 57:14       125:21 129:2         86:10 88:19       113:25 114:10,20       variables 21:4,7       Virginia 2:6       130:23 151:18	24:4 28:14	, , , , , , , , , , , , , , , , , , ,	78:21 95:8,15	videography 8:21				
5:2 6:2 26:22       61:10 62:1 65:17       Vancouver 66:25       view 60:6,10 74:21       water 167:22 221:1         27:2 28:8 30:24       67:13,24 74:23       variability 247:14       141:11 159:23       way 19:1,20 77:3,5         33:17,22 35:22       79:23 80:4,15       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         61:15 83:16 86:8       94:19 97:7 113:22       216:1,4       viewed 57:14       125:21 129:2         86:10 88:19       113:25 114:10,20       variables 21:4,7       Virginia 2:6       130:23 151:18	<b>USA</b> 156:18		103:18 131:13	VIDEOTAPED	· ·			
27:2 28:8 30:24 67:13,24 74:23 variability 247:14 squared formula (1.11 159:23) (4.11 159:23 79:23 80:4,15 82:1 83:2 88:8 94:19 97:7 113:22 86:10 88:19 113:25 114:10,20 variables 21:4,7 variabl	use 3:12 4:13,24	, ,	208:19 262:15	1:10				
33:17,22 35:22       79:23 80:4,15       variable 61:19,19       241:17 244:12       79:15 81:15 83:16         61:17 69:7 73:19       82:1 83:2 88:8       214:18 215:1,4       280:19       104:24 115:3,6         81:15 83:16 86:8       94:19 97:7 113:22       216:1,4       viewed 57:14       125:21 129:2         86:10 88:19       113:25 114:10,20       variables 21:4,7       Virginia 2:6       130:23 151:18	5:2 6:2 26:22		Vancouver 66:25	view 60:6,10 74:21				
61:17 69:7 73:19 82:1 83:2 88:8 214:18 215:1,4 280:19 viewed 57:14 125:21 129:2 113:25 114:10,20 variables 21:4,7 Virginia 2:6 104:24 115:3,6 104:24 115:3,6 125:21 129:2 130:23 151:18	27:2 28:8 30:24	,	variability 247:14	141:11 159:23				
81:15 83:16 86:8 94:19 97:7 113:22 216:1,4 viewed 57:14 Virginia 2:6 130:23 151:18	33:17,22 35:22	,	variable 61:19,19	241:17 244:12				
86:10 88:19	61:17 69:7 73:19		214:18 215:1,4	280:19				
(Manual 2)	81:15 83:16 86:8		216:1,4	<b>viewed</b> 57:14				
	86:10 88:19	,	variables 21:4,7	Virginia 2:6				
	100:14 107:6,15	115:16 116:6,14		C	160:17 199:15			
				<u> </u>	<u> </u>			

202:9 205:15	wearing 189:25	180:19 220:25	201:21 219:21	275:1 278:20
211:15 220:15	190:1,14 204:15	221:3 242:15	245:9 247:4,15	280:22 287:10
227:24 228:18	204:17	272:4 276:24	266:11	289:19
283:23	wears 199:2	292:23 294:11,17	write 79:6,11 96:3	year 17:23 31:7,10
wcople@hollings	web 268:24	295:1	131:16 132:6,21	44:14 68:18
2:11	website 3:17,22 4:7	witness's 145:21	133:3 139:11	139:14 219:7
we'll 9:21 10:3	153:16,20 154:8	156:23 194:18	178:5,8 225:6	250:16 254:19
43:23 45:18 47:2	154:18,22 169:18	<b>witnesses</b> 96:9,16	writes 177:10	268:2 276:4
48:15 64:5 92:20	170:13 172:9	women 202:25	237:4	279:18
94:8 154:4 170:25	175:3 244:16	<b>wonder</b> 237:4	<b>writing</b> 79:13	years 4:11 17:22,23
189:4 200:24	279:8	wording 151:1	130:22 289:4	166:25,25 168:1
218:18 227:12	weigh 25:14	words 233:21 234:1	written 80:6,11	184:24 185:6
250:5 258:22	weighed 119:15	work 28:11,12	85:11 96:5 130:19	230:13 232:4
262:4	weight 22:13	30:21 42:4 55:5	132:15 133:12,15	248:24 249:6,15
we're 11:11 18:20	weighted 281:23	55:25 56:12 82:4	133:22 187:4	253:4
34:15,19 41:19,20	282:2,3	96:9 106:12 120:7	218:25 245:2,14	<b>Yep</b> 112:21
47:4 51:8 61:20	Weisenburger's	148:5,24 172:16	251:8 254:19	York 248:10
61:21 75:6,9 82:4	182:20	174:10 184:8	279:15,17	young 252:19,23
84:22 90:7,15	welding 3:22	188:7,18 213:19	wrong 62:4,14	253:22
99:5 101:25	169:18	214:1 221:10	115:6 120:6 136:9	younger 234:4
102:18 109:24	well-equipped	228:7 238:17	141:16 143:15	<b>Yu-Han</b> 279:18
115:23 117:8,9	246:17	239:7 242:8	151:2 158:5 159:5	
119:8 125:2	well-respected	243:15 244:5	256:9 257:6 262:6	Z
169:14 173:21	112:3,6 174:8	245:9 246:1	265:17	<b>zero</b> 68:20
198:12 215:6,12	went 27:5 127:24	265:21 274:14,16	wrote 133:7 167:8	
229:9 239:24	128:20 129:19	275:3	167:15 222:10	0
241:2 242:11	142:23 143:3	worked 171:17,22	258:25 259:2	<b>0001</b> 19:2,6
246:9 260:12	225:5 276:6	185:17 291:1	264:10	<b>02</b> 122:13
261:22 264:2	weren't 48:19	working 29:4 172:4	<b>Wu</b> 173:24 174:2	<b>03</b> 92:5,18 106:15
265:12 266:14,16	57:12 59:4 91:18	172:18 177:13	<b>T</b> 7	122:3
we've 43:15 63:10	161:1,2 216:24	188:17 189:13	<u>X</u>	<b>05</b> 122:6 258:21
101:17 116:9	235:16 291:11	240:2 242:7	<b>X</b> 3:4	06 258:2
120:19 122:10,17	<b>WG</b> 177:14	works 53:1 131:6	Y	<b>08</b> 92:22 122:10
144:22 154:5	whereof 294:17	170:18 231:13		1
156:20 175:12	widely 241:14	244:13	yeah 24:16 26:4	1 13:13 17:17 35:22
177:12 221:21	width 121:15	<b>World</b> 5:7 59:4	35:19 43:3 45:11	50:6 51:12,17
234:5 241:20	<b>William</b> 2:10 7:20	170:5 248:12,15	63:16 64:3 99:14	69:5,10 75:2
254:17 256:16	willing 247:4,15	271:15	114:22 122:4	78:21 94:21 95:8
261:4 267:17	<b>Wilson</b> 5:15 149:21	worry 258:15	133:2,25 149:17	95:15 101:18
272:18	149:22,25 259:12	worth 262:21	150:23 162:5	103:18 123:21
weak 35:5	259:12,20,25	worthy 22:24 65:11	163:23 180:16	130:13 138:5
<b>weaken</b> 98:1,19	wish 54:5	172:24 241:16	184:3,7 187:21	208:19 222:24
weaknesses 195:2	witness 8:4 49:8,10	<b>wouldn't</b> 16:16	196:13 197:7	239:1,18 268:6
195:19	90:5 108:14	61:17 88:6 117:12	233:23 234:14 237:9 238:23	1-to-1.43 262:14
wear 194:5 197:1	135:25 145:18	125:21 131:21	257:20 258:12	<b>1.0</b> 49:22,24 50:3
199:8,11 203:7,9	154:13 158:20	143:11 152:16	261:16 267:5	50:10 129:16
203:16	172:14 179:23	160:18 199:21	201.10 207.3	30.10 127.10
	1	<u> </u>	<u> </u>	1

#### Case 3:16-md-02741-VC Document 652-1 Filed 10/28/17 Page 113 of 114

# Confidential - Subject to Protective Order

<b>1.08</b> 78:22	<b>129</b> 270:13	113:20 114:1,8,13	<b>2015</b> 138:12 155:4	176:1 179:16
<b>1.1</b> 121:16 260:2	<b>13</b> 3:7	212:3,18,23 213:5	155:7,17 185:5	<b>23-23</b> 4:11 184:22
<b>1.19</b> 260:15 262:13	<b>134</b> 3:11	213:9,12,23 214:1	250:17	184:23 185:3
<b>1.2</b> 35:5 74:4	<b>1350</b> 2:12	214:8,10,10,22	<b>2016</b> 197:12 239:17	<b>23-24</b> 4:13 197:19
208:10	<b>14</b> 141:19 142:6	215:7,13,22 216:7	269:5 287:20	198:1 206:12
<b>1.3</b> 52:20 56:6	<b>144</b> 3:13	216:19,25 217:2	<b>2017</b> 1:7 7:6 238:23	<b>23-25</b> 4:16 200:24
<b>1.34</b> 251:5	<b>146</b> 3:14	<b>2.0</b> 121:16 125:25	238:25 239:18	201:2
<b>1.4</b> 263:4	<b>149108</b> 294:23	<b>2.02</b> 95:4,6	288:7 292:25	<b>23-26</b> 4:18 213:5,6
<b>1.5</b> 105:13 121:11	<b>15</b> 226:10 243:11	<b>2.1</b> 86:21,24 88:22	294:6,18	264:2
123:12 124:10	<b>152</b> 3:15	263:4 264:17,25	<b>202-898-5800</b> 2:13	<b>23-27</b> 4:20 222:2,3
<b>1.51</b> 104:16	<b>154</b> 3:17	265:5,9,11	<b>21</b> 1:7 7:6 138:12	<b>23-28</b> 4:23 225:15
<b>1.6</b> 87:17,18,23	<b>158</b> 3:18	<b>2.12</b> 68:25 69:6	268:17 292:25	225:16 285:22
88:2,22	16-md-02741-VC	<b>2.26</b> 95:11,13	<b>213</b> 4:19	<b>23-29</b> 5:1 227:12,13
<b>1.7</b> 264:24,24	1:5 7:11	<b>2.36</b> 100:3,9,10,19	<b>21st</b> 239:16 294:5	<b>23-3</b> 5:3 44:19,22
<b>1.74</b> 74:4	<b>165</b> 3:20	100:25	294:18	48:18 49:15 60:15
<b>1.85</b> 83:22	<b>1659</b> 99:15 102:18	<b>2.42</b> 139:14	<b>22</b> 195:16 217:16	63:6 74:2 83:20
<b>1.87</b> 103:3	<b>1660</b> 98:9	<b>2:32</b> 221:5	218:7 268:17	105:19
<b>1/28/16</b> 3:14 146:9	<b>1661</b> 104:13	<b>2:50</b> 221:8	<b>222</b> 4:22	<b>23-30</b> 5:5 242:21
<b>1/4/12</b> 3:20 165:20	<b>169</b> 3:22	<b>20</b> 17:22 34:6,11,23	<b>225</b> 4:24	243:1
<b>1:20</b> 163:4	<b>17</b> 155:17 159:3	35:15 36:1 208:8	<b>227</b> 5:2	<b>23-31</b> 5:7 248:15
<b>1:24</b> 106:10	268:15	297:17	<b>22960</b> 2:6	<b>23-32</b> 5:9 250:7
<b>10</b> 208:13 234:17	<b>171</b> 3:24	<b>20,000</b> 232:19	<b>23</b> 268:17	<b>23-33</b> 5:12 254:8,14
259:4,6 260:2	<b>173</b> 4:5	235:4,16	<b>23-1</b> 3:6 13:14,19	<b>23-34</b> 5:14 256:19
<b>10/24/2016</b> 288:23	<b>175</b> 4:7	<b>2000</b> 219:19 254:19	<b>23-10</b> 3:8 119:1,9	<b>23-35</b> 5:15 259:19
<b>10:06</b> 63:20	<b>176</b> 4:10	<b>20005</b> 2:12	<b>23-11</b> 3:11 134:7,19	262:1
<b>10:16</b> 63:23	<b>18</b> 111:9,12	<b>2001</b> 219:19 248:8	137:6	<b>23-36</b> 5:17 264:3,4
<b>100</b> 105:6 229:8,14	<b>184</b> 4:12	<b>2002</b> 51:1 219:13	<b>23-12</b> 3:12 144:16	<b>23-37</b> 5:19 266:18
232:24	<b>18th</b> 239:16	<b>2003</b> 50:16 84:23	144:23	267:1
<b>1047</b> 80:19	<b>19</b> 141:20 244:21	230:15,19	<b>23-13</b> 3:14 146:7,8	<b>23-38</b> 5:20 273:5
<b>105</b> 152:25	260:17	<b>2005</b> 47:25 48:2	146:19	<b>23-39</b> 5:22 277:16
<b>108</b> 2:6	<b>1933</b> 167:20	50:19 125:1	<b>23-14</b> 3:15 152:19	<b>23-4</b> 5:23 45:18
<b>11</b> 155:17	<b>198</b> 4:15	195:15,20 200:25	152:20	48:20 49:2 51:25
<b>11:08</b> 106:7	<b>1993</b> 217:22 230:7	207:2 218:25	<b>23-15</b> 3:16 154:5,6	<b>23-40</b> 6:1 286:20
<b>110</b> 6:15	<b>1997</b> 217:22 230:8	219:2 236:13	279:24	<b>23-5</b> 6:3 64:6,12
<b>112</b> 3:18 137:17	<b>1998</b> 230:15	281:1,21	<b>23-16</b> 3:18 158:11	<b>23-6</b> 6:6 75:19 76:1
138:15 150:8	19th 288:7	<b>2006</b> 230:20	158:13	<b>23-7</b> 6:8 84:23 85:1
158:7,12,14 270:6	1st 238:23,24	<b>2008</b> 50:24	<b>23-17</b> 3:19 165:16	<b>23-8</b> 6:11 93:1
271:13 292:1,6	2	201 4:17	165:17	<b>23-9</b> 6:14 110:21
<b>114</b> 4:5 173:5	<b>2</b> 1:12 17:16,18	<b>2012</b> 152:11 166:3	<b>23-18</b> 3:21 169:15	111:1
<b>1160</b> 72:12	18:8 21:7 74:9	167:8	169:16	<b>24</b> 243:11 268:17
<b>1161</b> 68:10 70:20	99:17 108:16,19	<b>2013</b> 48:8 223:19	<b>23-19</b> 3:23 171:1,2	<b>24-year</b> 5:16
<b>1162</b> 71:13 <b>119</b> 3:10	137:23 138:10	239:16,16 264:12 265:25 269:3	<b>23-2</b> 4:1 43:7,16	259:17,22 <b>243</b> 5:6
119 3:10 11th 248:8	186:2 187:18	275:11 286:15	<b>23-20</b> 4:5 173:3,4 173:15	<b>248</b> 5:8
<b>12</b> 135:3,6 139:24	238:3 251:13	287:7 288:24	<b>23-21</b> 4:6 174:23	<b>246</b> 5.8 <b>24th</b> 239:17
<b>12</b> 133.3,6 139.24 <b>12/5/16</b> 6:2 286:23	265:17 268:6	<b>2014</b> 225:5,9 268:8	175:1	<b>250</b> 5:11
<b>12:37 10</b> 0.2 280.23 <b>12:32</b> 162:8	<b>2,4-D</b> 4:19 73:3	285:9 286:11	<b>23-22</b> 4:8 175:21	<b>254</b> 5:13
12.52 102.0		203.7 200.11	#J-## T.U 1/J.21	<b>207</b> 3.13

				Page	335
<b>256</b> 5:14	<b>39</b> 277:14	6	<b>95</b> 218:14 229:18		
<b>259</b> 5:16		6 258:7	257:17		
<b>264</b> 5:18	4	<b>6.2</b> 83:23	<b>96</b> 218:14		
<b>267</b> 5:19	<b>4</b> 18:22 112:18,19		<b>97</b> 218:14 230:5,18		
<b>272</b> 3:3	112:19 113:4	<b>6/23/15</b> 4:18 213:7	<b>98</b> 219:7,19 230:19		
<b>273</b> 5:21	118:14 166:3	60 87:22 88:3	<b>99</b> 219:19		
<b>2741</b> 1:3 7:10	248:24 249:6,15	<b>60s</b> 168:24	<b>998</b> 103:20		
<b>277</b> 5:22	<b>4,000</b> 21:2	<b>63</b> 126:2 229:21,24	770 103.20		
<b>28</b> 217:18 218:9	<b>4:04</b> 261:12	64 6:5			
<b>286</b> 6:2	<b>4:25</b> 272:9	<b>672-4224</b> 2:7			
<b>29</b> 17:22 287:16	<b>4:42</b> 272:12	7			
<b>2A</b> 150:18,22,25	<b>40</b> 4:11 17:22 18:19	<b>7</b> 8:18 18:23 84:5			
151:8 156:3	184:24 185:6	88:25 104:13			
183:23 223:20	286:18 289:9,12	106:1 110:9			
265:22	<b>400</b> 147:24				
203.22 2B 212:4	<b>404</b> 48:23 49:14,16	<b>7/31/17</b> 5:21 273:7 <b>70</b> 82:15			
<b>2D</b> 212.4	<b>424</b> 53:13 55:24				
3	<b>43</b> 4:4 121:25 122:1	<b>70s</b> 82:14			
<b>3</b> 86:4,6,20 102:20	<b>44</b> 5:4	<b>71</b> 237:21,25 238:4			
106:25 107:3,6,7	<b>4513</b> 120:25 125:14	238:5,15			
211:21,23 248:22	<b>46</b> 121:25 122:1	<b>743</b> 178:3			
<b>3-18</b> 288:24	<b>49</b> 5:25 17:23 18:19	<b>76</b> 6:7			
<b>3.04</b> 78:14,17	217:13	8			
<b>3.1</b> 113:5 118:13	217.13	<b>8</b> 3:2 68:11 91:5			
<b>3.2</b> 265:11	5	236:1 237:4			
<b>3.51</b> 103:20	<b>5</b> 125:6 126:23	<b>833</b> 74:4			
<b>3/21/2013</b> 288:23	127:2,17 128:9,11	<b>85</b> 6:10			
<b>3:41</b> 261:9	129:12,23 222:24	<b>877.370.3377</b> 1:20			
<b>30</b> 52:1,16 55:25	222:25 223:15	077.370.3377 1.20			
121:24 122:1	234:16 265:16	9			
295:13	268:7	9 88:25 108:16,19			
<b>30,000</b> 97:11	<b>5/24/17</b> 3:12 144:17	128:17 129:6			
<b>3035</b> 262:7	<b>5:03</b> 293:1	<b>9/11</b> 248:3,13			
<b>3036</b> 262:23	<b>50</b> 33:6 104:21	<b>9/19</b> 239:5			
<b>3038</b> 262:23	105:5,15 123:1	<b>9/19/2017</b> 239:20			
<b>31</b> 121:25	125:7 282:6	239:21 288:22			
<b>32</b> 250:6	<b>50s</b> 168:24	<b>9/21/15</b> 3:11 134:8			
<b>32,000</b> 20:25	<b>51</b> 207:20	<b>9:01</b> 1:13 7:7 294:6			
<b>33</b> 121:25 122:1	<b>512</b> 188:14	<b>9:37</b> 41:14			
283:22	<b>513</b> 189:5	<b>9:41</b> 41:17			
<b>34</b> 256:17	<b>52</b> 211:23	<b>90</b> 270:2			
<b>36,000</b> 232:17	<b>53</b> 208:21	<b>917.591.5672</b> 1:20			
233:6 235:15	<b>540-</b> 2:7	<b>92</b> 208:5			
<b>36,342</b> 229:20	<b>55</b> 83:23	<b>93</b> 6:13 218:14			
232:6	<b>57,000</b> 201:16	219:4 230:5			
<b>37</b> 229:25 230:2,9	5th 287:19	231:25 285:6			
<b>38</b> 273:4 275:7	201.17	<b>94</b> 218:14			
30 413.4 413.1		/ <b>7</b> 410.14			
	I	I	1	1	