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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

IN RE: ROUNDUP PRODUCTS LIABILITY) MDL No. 02741
LITIGATION)
)
) Hon. Vince Chhabria
)
THIS DOCUMENT RELATES TO:)
ALL ACTIONS)
)
_____)

(30(b)(6) CAPACITY FOR MONSANTO COMPANY)

VIDEO DEPOSITION OF WILLIAM REEVES
January 23, 2019
9:43 a.m.

CONFIDENTIAL

Reporter: Mark Arndt, CSR, CCR, RPR
CSR No. 084-004711
CCR No. 1398

1 DEPOSITION OF WILLIAM REEVES produced,
sworn, and examined on January 23, 2019, at Husch
2 Blackwell, 190 Carondelet Plaza, Suite 600, in the City
of St. Louis, State of Missouri, before Mark Arndt, a
3 Certified Shorthand Reporter and Certified Court
Reporter.

4

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1 THE VIDEOGRAPHER: We are now on the
2 record. My name is Luke Arndt. I am a videographer
3 for Golkow Litigation Services. Today's date is
4 January 23, 2019, and the time is approximately 9:43
5 AM.

6 This video deposition is being held in St.
7 Louis, Missouri, In Re Roundup Products Liability
8 Litigation for the United States District Court,
9 Northern District of California, San Francisco
10 Division.

11 The deponent is Bill Reeves. Will counsel
12 please identify themselves?

13 MR. WISNER: Brent Wisner on behalf of the
14 plaintiffs.

15 MR. BAUM: Michael Baum on behalf of
16 plaintiffs.

17 MR. LUNDY: Hunter Lundy on behalf of the
18 plaintiffs.

19 MR. BRENZA: Lin Brenza on behalf of
20 Monsanto and on behalf of Bayer and defending the
21 witness.

22 MR. JOHNSTON: Robert Johnston from
23 Monsanto.

24 MR. BEROUKHIM: Alex Beroukhim for

1 defendant.

2 MR. WISNER: Eric?

3 MR. HOLLAND: Oh. Eric Holland observing
4 for plaintiffs.

5 THE VIDEOGRAPHER: The court reporter is
6 Mark Arndt and will now swear in the witness.

7

8 The witness, WILLIAM REEVES, first having been
9 duly sworn, testified as follows:

10 QUESTIONS BY MR. WISNER:

11 Q. Good morning, sir.

12 A. Good morning.

13 Q. My name is Brent Wisner, and I represent
14 the plaintiff in this lawsuit. I understand you have
15 been put forward as a witness to testify on behalf of
16 Monsanto; is that correct?

17 A. That's correct.

18 Q. What is your understanding of what your
19 role is here?

20 A. My role here is to represent the company
21 and speak on their behalf.

22 Q. Great. Are you familiar generally with
23 what these lawsuits are about?

24 A. Yes, I am.

1 Q. What is your understanding of that?

2 A. They are the question of whether or not
3 glyphosate or glyphosate-based products can cause
4 non-Hodgkin's lymphoma.

5 Q. You also understand that in addition to
6 whether or not it causes non-Hodgkin's lymphoma, my
7 clients are suing for injuries that they say are
8 because of that injury. You understand that?

9 A. Yes, I do.

10 Q. All right. I assume -- have you ever had
11 your deposition taken before?

12 A. No, I have not.

13 Q. So this is your first time?

14 A. Yes, it is.

15 Q. I assume that you've already had
16 preparation from your counsel. Very quick basic ground
17 rules. We don't really have to spend too much time on
18 it. The first is -- and you're doing a great job of it
19 so far -- all answers need to be audible, okay?

20 A. Yes.

21 Q. And the reason simply is because the court
22 reporter needs to write everything down.

23 The second thing is I'm going to be asking
24 you questions throughout this deposition, and I

1 probably will ask you questions that you simply don't
2 understand or seem incomprehensible to you, okay?

3 A. Okay.

4 Q. If I do that, tell me I don't understand
5 your question, and I will rephrase it until I can get
6 out a question that makes sense to you; okay?

7 A. Okay.

8 Q. My understanding, though, is that if you
9 do in fact answer my questions, I'm going to assume you
10 understood what I asked; okay?

11 A. Yes.

12 Q. You also understand that you're under oath
13 here?

14 A. Yes.

15 Q. What is your understanding of that oath?

16 A. My job is to tell the truth.

17 Q. Great. And although we are not in a
18 courtroom right now, you understand this is a formal
19 court proceeding?

20 A. Yes, I do.

21 Q. And because of that, throughout the
22 deposition your counsel may make objections or
23 interpose commentary -- hopefully it's just objections,
24 but he might do so and if that happens, I will largely

1 ignore him and just be waiting for a question -- for
2 you to answer my question; okay?

3 A. I understand.

4 Q. And it's not meant to like stare you down
5 or be rude. It's kind of an awkward human interaction,
6 but I actually am just trying to get the question
7 answered; okay?

8 A. I understand.

9 Q. Now, sometimes he'll object and I'll be
10 like, "Well, gosh. That's actually a good objection."
11 I'll probably rephrase the question to make it less
12 objectionable; okay?

13 A. Okay.

14 Q. But when I do that, I'll let you know.

15 A. All right.

16 Q. The other thing that's really important --
17 and you're also doing a fantastic job of this, is
18 making sure you don't speak while I'm speaking. And
19 the reason for that is because, you know, the court
20 reporter can only take down one person at a time.

21 A. Sure.

22 Q. The -- but invariably we will speak at the
23 same time just because I'll be trailing off with my
24 question, you'll think I'm done when I'm not, or

1 vice-versa; I think you'll be done with your answer and
2 start asking the next question; okay?

3 A. I understand.

4 Q. If you interrupt me or if I interrupt you,
5 can we just agree that we'll just say something to the
6 other person, say hey, I wasn't finished?

7 A. Okay.

8 Q. Make sense?

9 A. Yes.

10 Q. Great. What exactly did you do to prepare
11 for your deposition today?

12 A. So the main thing I did was work with my
13 attorneys, who are here, and then review documents.

14 Q. And how much time did you spend preparing?

15 A. With my -- with our legal counsel, it was
16 probably in the realm of 150 to 200 hours, and then
17 reviewing documents is probably somewhere around 250
18 hours.

19 Q. So you spent upwards of 400 hours
20 preparing for this deposition?

21 A. Somewhere in there. I haven't done a firm
22 count.

23 Q. Wow. Okay. So I first noticed this
24 deposition in November. I want to hand you Exhibit 1.

1 This is a notice -- the original notice for your
2 deposition. I'm sure you've seen this before.

3 A. Yes, I have.

4 [Exhibit 1 marked for identification.]

5 MR. WISNER: Can we go off the record
6 really quickly?

7 THE VIDEOGRAPHER: We are going off the
8 record at 9:47 AM.

9 [Discussion off the record.]

10 THE VIDEOGRAPHER: We are back on the
11 record at 9:56 AM.

12 Q. (By Mr. Wisner) All right, we got that
13 technical difficulty resolved. Does this work for you?

14 A. Yes, it does.

15 Q. Okay, great. So I -- we were talking
16 about your preparing for this deposition. And you
17 understand that many of the topics at issue in this
18 deposition are science-based?

19 A. That's correct.

20 Q. Do you have a scientific background?

21 A. Yes, I do.

22 Q. What is that?

23 A. I have a PhD in toxicology and a
24 bachelor's degree in biology.

1 Q. And where did you get your PhD from?

2 A. Texas A&M.

3 Q. All right. You're an Aggie.

4 A. Yes, indeed.

5 Q. Did you ever build one of those big
6 bonfires?

7 A. No, I did not.

8 Q. And where did you go to undergrad?

9 A. University of Missouri.

10 Q. And how long have you been -- are you
11 employed at Monsanto?

12 A. Yes, I am.

13 Q. Now Bayer, I assume?

14 A. Bayer. That's right.

15 Q. How long have you worked there?

16 A. Twelve years.

17 Q. And where did you work before that?

18 A. Prior to that I was with Tetra Tech. It's
19 an environmental consulting company.

20 Q. And what did you do there?

21 A. I was a human health and environmental
22 risk assessor.

23 Q. And then you joined Monsanto 12 years ago?

24 A. That's right.

1 Q. And what did you join Monsanto as?

2 A. I was a biotechnology regulatory affairs
3 manager.

4 Q. And have you held that position since?

5 A. No. I had that role from 2007 until 2014,
6 and then in 2014 I joined our scientific affairs team.

7 Q. And have you been working in the
8 scientific affairs since?

9 A. Yes. Until last November.

10 Q. And then -- yeah.

11 A. Or November of 2018.

12 Q. And then what happened?

13 A. And now I'm the health and safety issues
14 management lead for our agricultural affairs and
15 sustainability team. So it's a new team that formed
16 under Bayer.

17 Q. And I assume for all of these different
18 positions, have you essentially been being elevated
19 within Monsanto?

20 A. Yes.

21 Q. And why did you join Monsanto?

22 A. So I originally applied with them in
23 two -- well, it was 2006 at the time. The -- I have a
24 regulatory background, doing a lot of things in

1 regulated environments, regulated industries. I was a
2 regulator for a while, and they had an opening for a
3 biotechnology regulatory affairs manager, and looking
4 at that opportunity and the products in the pipeline I
5 decided to apply.

6 Q. And during these twelve years you've been
7 at Monsanto, has your focus been on Roundup?

8 A. In -- most recently. Since 2014.

9 Q. Prior to that were you working more on
10 GMOs?

11 A. Yes. I was working on drought-tolerant
12 corn and insect-protected soybean.

13 Q. And starting in 2014 when you moved into
14 the scientific affairs group --

15 A. Uh-huh.

16 Q. -- what did your job responsibilities
17 entail?

18 A. So within that group I was the crop
19 protection safety and outreach lead, so my focus was on
20 pesticides, and it was really about being able to talk
21 about benefits and safety, going around answering
22 questions for any group that was interested in knowing
23 more, and putting together materials -- you know, we'd
24 post on the web or documentation or scientific

1 publications.

2 Q. Do you know Dr. Sachs?

3 A. Yes, I do. He was in our team as well.

4 Q. That's where I was going. Was he your
5 boss or did he work underneath you?

6 A. He was on the same team, but we reported
7 up separately to the lead.

8 Q. Oh, so horizontal?

9 A. Yes, that's right.

10 Q. Who is your boss?

11 A. John Vicini, V-I-C-I-N-I.

12 Q. I know most people at this point.

13 A. Yeah.

14 Q. Well, great. I want to just -- quick
15 background. Have you participated or conducted an
16 animal carcinogenicity study?

17 A. No, I have not.

18 Q. Have you ever participated or conducted an
19 epidemiological study?

20 A. No, I have not.

21 Q. Same thing for a cellular bioassay?

22 A. That I have done.

23 Q. Specifically with Roundup?

24 A. No. This was in graduate school.

1 Q. So you -- I assume, then, you've never
2 actually done any sort of direct hard science with the
3 Roundup product?

4 A. Yeah. I've not conducted experiments with
5 Roundup.

6 Q. So in preparing for your deposition today
7 you probably reviewed much of the studies that you
8 could find to get sort of studied up on it?

9 A. Yes, that's correct.

10 Q. And if we look at the deposition notice --
11 it's Exhibit 1 in front of you -- some of the topics
12 here -- I'll just look at the first couple because I
13 think they kind of hit the point. The first one is
14 Monsanto's knowledge and positions regarding the
15 carcinogenicity of glyphosate-based formulations.

16 MR. BRENZA: Brent, I just want to
17 interject.

18 MR. WISNER: Let me just finish reading
19 and then you can interject.

20 MR. BRENZA: I don't think this is the
21 right notice. This is December 19th.

22 MR. WISNER: Yeah. This is the -- the
23 topics haven't changed. The topics of this -- this is
24 the original notice.

1 MR. BRENZA: That's fine. If you want to
2 just use it for the topics --

3 MR. WISNER: Yeah, that's all I'm doing.
4 I'm not -- fair enough. I appreciate that.

5 Q. (By Mr. Wisner) So anyway, the first
6 topic is does Roundup or Roundup products cause
7 non-Hodgkin's lymphoma; right?

8 A. I'm sorry. It's Monsanto's knowledge and
9 positions regarding --

10 Q. Yeah.

11 A. Okay.

12 Q. So one of the things you're here to talk
13 about, for example, is you're going to tell us
14 Monsanto's view on whether or not Roundup causes
15 non-Hodgkin's lymphoma?

16 A. Our knowledge and positions regarding the
17 carcinogenicity of glyphosate-based formulations.

18 Q. Great. And if we look at the second one,
19 that's the same thing that relates to genotoxicity,
20 oxidative stress, and DNA damage.

21 Do you see that?

22 A. I see that.

23 Q. And then we look at -- why don't we talk
24 about the AHS, which is an epidemiological study?

1 A. That's correct.

2 Q. And then we -- obviously another
3 epidemiological question. Let me just ask you quickly.
4 What training and background do you have that would
5 allow you to speak on behalf of Monsanto with regards
6 to epidemiology?

7 A. So I took a course in epidemiology in
8 graduate school, and then as part of my role in
9 scientific affairs and now in agricultural affairs,
10 that's part of my role, is to understand scientific
11 studies about these products -- about all of our
12 products.

13 Q. And I assume that's the same answer for
14 animal toxicology and cellular bioassays?

15 A. That's -- I -- so my role requires that,
16 but then in addition to that, my PhD work, I did the
17 cellular assays but I also did animal studies as well,
18 looking at endpoints related to carcinogenicity.

19 Q. And in preparation for your deposition
20 today, to speak on behalf of Monsanto, did you review
21 the available database on the animal carcinogenicity
22 studies?

23 A. Yes, I did.

24 Q. Obviously related to Roundup?

1 A. That's correct.

2 Q. Okay, great. So I want to spend the first
3 part of this deposition -- and it probably will be a
4 long part because there's a lot to go over -- talking
5 about whether or not Roundup causes cancer.

6 A. Okay.

7 Q. Okay? And so I'm going to mark -- usually
8 I preprint these things, so I -- because my handwriting
9 is terrible, but I'm going to try my best here. I'm
10 going to mark an Exhibit 2, and this is going to be a
11 -- just a white sheet of paper that I'm going to be
12 drawing on as we go through your testimony; okay? And
13 it will be up here on the screen, so you'll see what
14 I'm writing.

15 [Exhibit 2 marked for identification.]

16 A. Okay.

17 Q. So first thing I want to talk -- so we're
18 going to talk about causation, okay? And I'm going to
19 write up here causation. All right?

20 A. Okay.

21 Q. Spell that right? Okay, I did. All
22 right. I'm terrible at spelling. I'm from a
23 generation that had too much spellcheck. All right.

24 So one of the things that the jury is

1 going to hear before they see your testimony is they're
2 going to hear from our experts that sort of talk about
3 what we call the three pillars of causation science;
4 okay?

5 A. Okay.

6 Q. And the way we've divided that is in one
7 pillar we have epidemiology; okay?

8 A. Okay.

9 Q. And in the next pillar, we have sort of
10 animal carcinogenicity studies.

11 A. Okay.

12 Q. Like does it promote tumors essentially is
13 when we're looking at there.

14 A. I understand.

15 Q. And those are primarily in rodents, but
16 there's been some dog studies and stuff here or there
17 that might be sort of relevant to the question.

18 And then the third one is -- we've been
19 calling it mechanistic data, but I think it's better
20 just to call it cell data; okay?

21 A. Okay.

22 Q. And then the reason why I say that is
23 because there might be human cells, right, but it's
24 looking at cells?

1 MR. BRENZA: Object to form.

2 A. There are -- so there are studies with
3 human cells, but there are also studies with whole
4 animals as well --

5 Q. (By Mr. Wisner) Precisely. And so
6 there's in vitro and vivo; right?

7 A. That's correct.

8 Q. And then there's mammalian studies,
9 there's amphibian studies, there's -- just like a lot
10 of studies; right?

11 A. There are a large number.

12 Q. So all of those studies that look at the
13 effects on cells -- I'm going to call that cell science
14 or cell studies, okay? Does that make sense?

15 A. Okay. That's your terminology. Yes.

16 Q. Yeah. That's how I'm dividing it. Just
17 -- I want you to know what I'm doing so you're not
18 confused or whatever. So the first one is going to be
19 epi, right? The second one is going to be -- I'm going
20 to call tox, but animal tox, okay?

21 A. Okay.

22 Q. And the third one is cell studies. Okay?

23 A. Okay.

24 Q. And I mean, these general categories -- do

1 you agree with me that this sort of covers the bulwark
2 of science related to carcinogenicity?

3 A. It would -- it's missing the exposure
4 information.

5 Q. Fair enough.

6 A. That's the part where we -- typically in a
7 risk assessment, you include exposure.

8 Q. That's right. You're absolutely right.
9 But before we get to exposure, these -- fair enough.
10 So there's really two questions; right? One is does it
11 cause cancer, and the next one is did it cause this
12 person's cancer; right? And exposure really comes in
13 more in the second question, or do you think it
14 involves the first question as well?

15 MR. BRENZA: Compound. Vague.

16 A. So could you clarify that? It sounded
17 like we had --

18 Q. (By Mr. Wisner) Sure. I'm just -- I'm
19 not trying to play tricks on you. I'm just trying to
20 get your understanding. So we talk about causation
21 generally, means can something cause cancer, right?

22 A. That's correct.

23 Q. And the next question is well, did it
24 cause this person's or does it cause people in the real

1 world cancer. Do you understand that?

2 A. I understand the legal proceeding. It
3 takes that form.

4 Q. Sure. And actually, I think sort of
5 conceptually it does as well, but in any event, so when
6 you talk about exposure, do you think that that plays
7 into the first question as well as the second question?

8 A. Yes. In a risk assessment we typically
9 consider those things as we go through the data. We're
10 looking at exposure and what are the studies telling us
11 at the same time.

12 Q. Okay, great. So -- well, we will talk
13 about exposure, so I will mark as Exhibit 3 a sheet,
14 exposure, but we'll come back to it later, because
15 that's sort of the latter part of the day, but we will
16 talk about it. So I've put that as Exhibit 3,
17 exposure.

18 Do you see that?

19 [Exhibit 3 marked for identification.]

20 A. Yes, I do.

21 Q. So let's talk about the first three sort
22 of pillars that we've talked -- we're going to be
23 talking about. Let's talk about epidemiology. Now, I
24 understand as part of your deposition, you actually

█ [REDACTED]

11 Q. (By Mr. Wisner) So that leads us into the
12 first pillar, right, which is epidemiology?

13 A. There is no -- sorry.

14 Q. Sorry. What? Sorry.

15 A. Sorry. It's epidemiology you wanted.

16 Q. Well, no. I just -- did you want to
17 finish your answer? Did I interrupt it?

18 A. Yeah, I just -- I wanted to finish that
19 off. Really what we're -- our position here -- we talk
20 about is there any evidence. We don't believe there is
21 any evidence, that when these products are used, when
22 these products are tested according to the scientific
23 protocols that are internationally accepted, that there
24 is a link between the two.

1 Q. So that leads us to the first pillar,
2 which we've called epidemiology; right?

3 A. That's right.

4 Q. And I know -- I'm just going to write here
5 for all three of these -- because this is really what
6 you're saying -- Monsanto, no evidence in real world;
7 is that right?

8 A. Well, I would say across the board. The
9 animal studies show nothing. The epidemiology data
10 show no relationship.

11 Q. No evidence across the board?

12 A. That's correct.

13 Q. So let's look at some of the studies that
14 have been published, all right? Let's start off with
15 epidemiology. And just to make sure we also are on the
16 same page here, it is true, right, that Monsanto has
17 never conducted an epidemiological study?

18 A. We have participated with the agricultural
19 health study to develop exposure data, but we have
20 never actually conducted our own go-out-into-the-field,
21 case control or cohort study. But we've done the
22 exposure data and we've also done a look at the health
23 of the people in our -- one of our production
24 facilities.

1 Q. But to -- so to be clear, though, you've
2 never actually done an epidemiological study?

3 MR. BRENZA: Asked and answered.

4 A. Yeah, it's -- so we've -- again, we worked
5 with the agricultural health study to define exposures.
6 We looked at the workers at one of our manufacturing
7 facilities, but we have not done a case control or
8 cohort study where we go out in the way that some of
9 the studies in the literature describe.

10 Q. (By Mr. Wisner) You say you worked at the
11 agricultural health studies to define exposures. What
12 are you talking about?

13 A. So that's the farm family exposure study.
14 As that study was coming online, we realized there was
15 a need to have information about actual exposures in
16 the field. And so then Dr. Acquavella who was our
17 epidemiologist at the time led an effort to go gather
18 exposure data and then share that with the scientists
19 who were working on the agricultural health study.

20 Q. So that would be -- this is Exhibit 3.
21 That would be the exposure section; right?

22 A. That's correct.

23 Q. So here you have the FFES. Is that what
24 you call it?

1 A. That's the abbreviation we used.

2 Q. FFES. Okay. And that was by Acquavella?

3 A. Yes. That's correct.

4 Q. And it was in 2004, right?

5 A. 2004.

6 Q. So other than this exposure study -- under
7 the epidemiological section, though, Monsanto has
8 actually never done an epidemiological study?

9 MR. BRENZA: Asked and answered.

10 A. So again, it's the farm family exposure
11 study. We did the work within our manufacturing
12 facility to look at mortality rates, and then there was
13 -- but we have not done a case control or cohort study
14 the way that the studies in the literature describe.

15 Q. (By Mr. Wisner) And in the animal
16 toxicology realm, Monsanto has done two animal
17 toxicology studies; correct?

18 A. We have three there, so it's --

19 Q. Two rat, one mouse?

20 A. That's right.

21 Q. And those -- the last time a study was
22 done was -- that was in 1991?

23 A. By Monsanto it was 1991, but the other
24 companies have continued doing that.

1 Q. Sure, and we're talking about Monsanto for
2 now, but Monsanto has not conducted an animal
3 toxicology study on glyphosate since 1991; right?

4 MR. BRENZA: Asked and answered.

5 A. Yes. We have not conducted a study on
6 glyphosate because the other companies have also done
7 their long-term studies as well, so that informs the
8 overall database.

9 Q. (By Mr. Wisner) And to be clear, when we
10 talk about animal toxicology studies, Monsanto has
11 never done one of those on a formulated Roundup
12 product; right?

13 A. We have not done that study because we've
14 never had any information in front of us indicating we
15 would need to do that study.

16 Q. We'll get into that in spades later. I
17 just want to clarify. So it's no, Monsanto has never
18 done an animal toxicology study on Roundup?

19 A. We have not done that study because we
20 have never had information in front of us indicating a
21 need for such a study.

22 Q. And just to be clear, your testimony is
23 you've never had any indication of a need for it?

24 A. We have never done that study because we

1 have never seen data in front of us indicating a need
2 for such a study.

3 Q. And then cell studies; right? And that's
4 a -- Monsanto has done a bunch, but there's been a lot
5 done by a lot of people all throughout the country,
6 right?

7 A. That's correct. It's -- there's Monsanto
8 studies, there's other companies, there's academics.

9 Q. But to be clear, Monsanto has never
10 actually gone out and looked at human cells of people
11 exposed to Roundup to see if there is any genotoxicity;
12 correct?

13 A. We do studies with human cells, and that's
14 part of the regulatory data package, so it's an
15 internationally-accepted protocol that's required as
16 part of the registration package. We've done that with
17 human cells and then we've also done that with live
18 animals, with whole animal studies.

19 Q. Okay, but you've never actually gone out
20 and taken blood from a human being exposed to Roundup?

21 MR. BRENZA: Asked and answered.

22 A. We have not done that because we have the
23 data necessary for understanding that question and
24 human cells, leukocytes. We also have that study from

1 animals, and when you look at those two together, they
2 are accepted around the world of being predictive of
3 human health outcomes.

4 Q. (By Mr. Wisner) So I understand why you
5 haven't, but just to be clear, you have never actually
6 just gone out to a person who's been spraying Roundup,
7 taken their blood, and seen if there was any
8 genotoxicity; correct?

9 MR. BRENZA: Asked and answered.

10 A. We have not done that because we have data
11 using human cells. We have data from animals, and
12 those are the studies that experts around the world
13 agree predict human health outcomes.

14 Q. (By Mr. Wisner) So let's talk about
15 epidemiology. I'm going to go through a couple of
16 studies with you, and just kind of quickly -- I don't
17 want to spend too much time on this. We have experts
18 for that. But I'm handing you Exhibit 5. This is a
19 case control study; correct?

20 [Exhibit 5 marked for identification.]

21 A. That's correct. May I have a moment to
22 review, please?

23 Q. Sure. Okay, great. So this is a study
24 done by two scientists, Dr. Hardell and Eriksson;

1 correct?

2 A. That's correct.

3 Q. And it was published in 1998; correct?

4 A. That's correct.

5 Q. So this is legitimately 20 years ago?

6 A. Yes, it was 20 years ago.

7 Q. And the title of it is a case control

8 study of non-Hodgkin lymphoma and exposure to

9 pesticides.

10 Do you see that.

11 A. Yes, I do.

12 Q. And if we go into the study -- and I'll
13 specifically draw your attention to Table 1. You see
14 that?

15 A. Yes, I do.

16 Q. There is the -- has a number of exposed
17 cases and controls, odds ratio, and 95 percent
18 confidence interval of exposure to pesticides.

19 Do you see that?

20 A. Yes, I do.

21 Q. And in here there is a listing for
22 glyphosate and that has an odds ratio of 2.3. That's
23 not statistically significant; correct?

24 A. That's correct.

█ [REDACTED]

█ [REDACTED] [REDACTED] [REDACTED]

█ [REDACTED] [REDACTED] [REDACTED]

█ [REDACTED]

█ [REDACTED] [REDACTED] [REDACTED]

█ [REDACTED] [REDACTED] [REDACTED]

█ [REDACTED]

8 Q. I'm handing you Exhibit 7.

9 [Exhibit 7 marked for identification.]

10 Q. This is a document that's been produced in
11 this litigation. I'll give you a second to review, and
12 let me know when you're ready to discuss it.

13 A. All right. Thank you. All right.

14 Q. So this is a document. It's a review of
15 the Hardell and Eriksson study; right?

16 A. That's correct.

17 Q. And it was prepared by John Acquavella and
18 Donna Farmer of the Monsanto company?

19 A. That's correct.

20 Q. April 14th, 1999?

21 A. That's correct.

22 Q. And this is a document that Monsanto
23 created as part of its review and consideration of the
24 epidemiological science?

1 A. That's right.

2 Q. And this is a document that was created in
3 the regular course of Monsanto's work?

4 A. That's correct.

5 Q. There's an executive summary, but I'm just
6 going to go straight to the conclusion. It's on page
7 ending 377. Do you see that?

8 A. Yes, I do.

9 Q. In conclusion, the study by Hardell and
10 Eriksson found a modest association between NHL and
11 several chemical pesticides, most notably for MCPA and
12 the collective group of fungicides.

13 The reported weak to moderate associations
14 for glyphosate were not statistically significant and
15 could be due to chance or to recall or confounding
16 bias. Did I mostly read that right? I might have
17 missed that --

18 A. Could you do that again just to make
19 I've -- check real quick.

20 Q. Sure. In conclusion, the study by Hardell
21 and Eriksson found a modest association between NHL and
22 several chemical pesticides, most notably for MCPA and
23 the collective group of fungicides. Did I read that
24 right?

1 A. Yes, you did.

2 Q. It goes on, the reported weak to moderate
3 associations for glyphosate are not statistically
4 significant and could be due to chance or to recall or
5 confounding bias. Did I read that right?

6 A. Yes, you did.

7 Q. And it says it is clear, however, that the
8 widespread use of glyphosate and concerns about
9 pesticide-related health effects for farmers and their
10 families will raise the, quote, index of concern for
11 glyphosate and future agricultural epidemiological
12 studies. Did I read that right?

13 A. Yes, you did.

14 Q. So according to Dr. Farmer and Dr.
15 Acquavella, this Hardell study did raise the index of
16 concern?

17 A. They're --

18 MR. BRENZA: Beyond the scope of the
19 deposition.

20 A. They are not saying that it raises the
21 index of concern for the company. It's not clear here
22 who they're saying, but the implication is that it's in
23 future epidemiologic studies. So it's -- perhaps other
24 researchers in the field might take more of an

1 interest.

2 Q. (By Mr. Wisner) So this is 20 years ago;
3 right?

4 A. That's correct.

5 Q. And since Dr. Acquavella and Dr. Farmer
6 raised this concern about the Hardell study, did
7 Monsanto at that point investigate or explore the
8 possibility of conducting an epidemiological study?

9 MR. BRENZA: Assumes matters not in
10 evidence. Mischaracterizes the document.

11 A. I'm not convinced they're saying this
12 raises a concern for them. They are walking through
13 giving an analysis saying this is a small study with
14 only a few people, weak associations, and perhaps other
15 researchers in epidemiology may take more of an
16 interest.

17 Q. So let's just be very clear. This is by
18 John Acquavella and Donna Farmer; correct?

19 A. That's correct.

20 Q. In the very last sentence after the -- in
21 a paragraph that begins in conclusion, that sentence
22 ends, it is clear, however, the widespread use of
23 glyphosate and concerns about pesticide-related health
24 effects for farmers and their families will raise the,

1 quote, "index of concern" for glyphosate and future
2 agricultural epidemiological studies. That's what it
3 says, right?

4 A. Those are the words on the page.

5 Q. And after they said that, that it raises
6 this index of concern for glyphosate in future
7 agricultural studies -- epidemiological studies -- did
8 Monsanto do their own study?

9 A. We did not do that because we did not
10 believe this study provided the type of evidence that
11 warranted additional concern.

12 Q. Again, that goes back to where we started
13 this discussion today, that there is no evidence across
14 the board?

15 A. That's correct.

16 Q. I'm handing you another document. This is
17 Exhibit A to your -- 8 to your deposition.

18 [Exhibit 8 marked for identification.]

19 Q. I'll give you a chance to review it, sir.
20 Let me know when you're ready to talk about it.

21 A. All right. I'm ready.

22 Q. So this is a document. It has the first
23 pages as an e-mail, and then there's an attachment to
24 it; correct?

1 A. That's correct.

2 Q. And one second. And as you can see here
3 the e-mail is from John Acquavella. Do you see that?

4 A. I do see that.

5 Q. To Dr. Farmer?

6 A. That's correct.

7 Q. Did you ever know Dr. Acquavella?

8 A. I've met him, but not while he worked at
9 Monsanto.

10 Q. And he was an epidemiologist, right?

11 A. That's correct.

12 Q. Donna, he writes -- and this is an e-mail
13 that was sent as part of Monsanto's general work,
14 correct?

15 A. That's correct.

16 Q. Donna, you asked for it. See attached.
17 Hopefully this draft as a strawman we can get something
18 to Bill by Friday. Please make any suggestions/edits
19 you think are reasonable. I'm also going to share this
20 on a confidential basis with my colleague Carol Burns
21 from Dow Chemical. Thanks, John. Did I read that
22 right?

23 A. Yes, you did.

24 Q. And if you turn the page, attached to it

1 is a rough first draft NHL proposal for ECPA. You see
2 that?

3 A. I do see that.

4 Q. Do you know what ECPA is?

5 A. European Crop Protection Association.

6 Q. That's an industry group?

7 A. It's a trade group, yes.

8 Q. And it goes on to discuss the Hardell
9 study. Do you see that?

10 A. Yes, I do.

11 Q. The one that we've been talking about
12 today?

13 A. Yes, I do.

14 Q. And then if you look at the bottom,
15 there's a paragraph. It says Hardell's most recent
16 study comes at a time when the U.S. National Cancer
17 Institute is getting ready to begin publishing papers
18 from their perspective agricultural health study of
19 60,000 farmers and their families. Thus the stage is
20 set for another round of epidemiologic studies to cause
21 significant concern for industry.

22 Do you see that?

23 A. I do see that.

24 Q. You would agree that the Hardell study

1 caused concern for the industry?

2 MR. BRENZA: Object to form.

3 A. The word here on the page is concern, but
4 it's not really explained, but the context is for that
5 concern.

6 Q. (By Mr. Wisner) So now we have Dr.
7 Acquavella saying it twice now. Index of concern in
8 the previous document and now he's saying it's a
9 concern for industry here?

10 A. In the previous document, again, it's
11 difficult to know, but it looks like he's referring to
12 epidemiological researchers. Here, concern, he's
13 referring to industry, but it could be more that the
14 concern is unreliable studies are indicating false
15 relationships.

16 Q. And he's raising that concern while
17 talking about the AHS; right?

18 MR. BRENZA: Beyond the scope of the
19 deposition.

20 A. So could you repeat your question, please?

21 Q. I'll have the court reporter repeat it.

22 [The pending question was read by the
23 reporter.]

24 MR. BRENZA: Beyond the scope. Asked and

1 answered.

2 A. And so raising the concern that these
3 studies are producing unreliable associations?

4 Q. (By Mr. Wisner) That's right.

5 A. Can you help me understand what you mean
6 by concern? Could you clarify?

7 Q. Well, does he says -- this raises studies
8 to cause significant concern for industry, and he's
9 talking about the agricultural health study; correct?

10 MR. BRENZA: Same objections. Asked and
11 answered, beyond the scope.

12 A. Yeah, it's really -- the concern here is
13 about are these studies going to be creating some sort
14 of misperception that there is a relationship, are they
15 going to have a high rate of false positives?

16 Q. (By Mr. Wisner) Because if there was a
17 positive study, it would have to be false; right?

18 MR. BRENZA: Object to form.
19 Argumentative.

20 A. What we do is we evaluate studies based on
21 the quality. When you look at Hardell, what you're
22 seeing is a very unreliable estimate of risks. It's a
23 huge span in the estimate of the value of the odds
24 ratio that he calculated.

1 And that's our concern. Without seeing
2 the agricultural health study, we're concerned that
3 we're going to have more findings where it's just these
4 very wide ranges of number that can be interpreted to
5 support people's positions because they oppose
6 glyphosate.

7 Q. (By Mr. Wisner) And if you look through
8 this document, Dr. Acquavella appears to be trying to
9 gain support for conducting a study; correct?

10 A. That is correct.

11 Q. And he says here at the bottom, supporting
12 this proposal requires substantial financial
13 commitment. Perhaps more than one million dollars.
14 However, the economic consequences of adverse,
15 unopposed epidemiologic findings can dwarf the funding
16 needed for this project. Did I read that right?

17 A. Could you point out which paragraph you're
18 in?

19 Q. It's the last paragraph. It's also on the
20 screen, but --

21 A. Oh, the last paragraph on the bottom. And
22 you question was --

23 Q. Did I read that correctly?

24 A. All right. Could we -- could you try that

1 again? Thank you.

2 Q. I'll do it again. Sure. Supporting this
3 proposal will require a substantial financial
4 commitment, perhaps more than one million dollars.
5 However, the economic consequences of adverse unopposed
6 epidemiologic findings can dwarf the funding needed for
7 this project. Did I read that right?

8 A. You read that correctly.

9 Q. And it says right here on the next page,
10 it can be arranged to have Dr. Adami circulate a formal
11 proposal. Do you see that?

12 A. I do see that.

13 Q. Do you know Dr. Adami?

14 A. I've heard of Dr. Adami. He's a expert on
15 exposure assessment.

16 Q. And he in fact worked closely with Dr.
17 Laura Limuchi (ph); correct?

18 MR. BRENZA: Beyond the scope.

19 A. That I am not aware of.

20 Q. (By Mr. Wisner) I'm handing you another
21 study. This is Exhibit 9 to your deposition.

22 [Exhibit 9 marked for identification.]

23 Q. Let me know when you're ready to talk
24 about it.

1 A. All right. Thank you. All right.

2 Q. So this is a study also published by
3 Hardell Eriksson, and now there is a new author --
4 right?

5 A. Yes, there is.

6 Q. And it's titled exposure to pesticides as
7 risk factor for non-Hodgkin's lymphoma and hairy cell
8 leukemia, pooled analysis of two Swedish case control
9 studies. Do you see that?

10 A. Yes, I do.

11 Q. And this is from 2002, as you can see it
12 up there at the top.

13 A. Yes, I do see that.

14 Q. And so this was a follow-up study by Drs.
15 Hardell and Eriksson, which looked at a larger group of
16 people; correct?

17 A. Larger overall, but not much larger for
18 glyphosate use.

19 Q. And if you look at the results section --
20 it's on Page 1045. You there?

21 A. Yes, I am.

22 Q. It reads, an increased risk was found for
23 exposure to herbicides, insecticides, fungicides, and
24 impregnating agents, Table 1. Regarding specific

1 agents, odds ratio was highest for glyphosate and MCPA.

2 You see that?

3 A. I do see that.

4 Q. And then if you -- well, my question is,
5 this was a document and a study that Monsanto was
6 obviously aware of; correct?

7 A. We saw it, we evaluated it, and when you
8 really look at the data, there is nothing really here
9 that provides a reliable indication that what Hardell
10 is reporting is actually what was going on in the
11 field.

12 Q. So we look at Table 7 on this document.
13 It's on Page 1047. Do you see that?

14 A. That's correct.

15 Q. And here we have a univariate and
16 multivariate analysis. You see that?

17 A. I do see -- well, I see the title. Are
18 you referring just to the column labels?

19 Q. That's right.

20 A. All right.

21 Q. Do you see that?

22 A. I do see that.

23 Q. And then we have here -- we have the
24 numbers for glyphosate; right?

1 A. Yes, we do.

2 Q. And when they do it a univariate analysis,
3 there's an odds ratio of 3.04; right?

4 A. That's there, and then the multivariate as
5 well is actually decreasing as they adjust for other
6 exposures.

7 Q. Sure, but I didn't ask you about the
8 multivariate, sir. I asked you about the univariate,
9 and that has 3.04; correct?

10 A. It does, but you can't look at that
11 without -- you can't consider the univariate without
12 considering the multivariate right next to it where
13 we're adjusting -- where the authors are adjusting for
14 other --

15 Q. I promise you we will talk about the
16 multivariate, but if you could just answer my question,
17 that would be helpful.

18 A. I see that number in that table.

19 Q. Thank you. And 3.04 in sort of common
20 parlance means that the people who were exposed to
21 Roundup were getting cancer at a rate three times
22 faster than the people who weren't?

23 MR. BRENZA: Object to form.

24 A. That is not how the odds ratio is -- what

1 the odds ratio means.

2 Q. (By Mr. Wisner) What is your
3 understanding of an odds ratio? What does that 3.04
4 mean?

5 A. So an odds ratio in an epidemiological
6 study is a measure of the frequency of someone's
7 exposure to or use of something when they're in two
8 different groups, so you're comparing two different
9 groups; people who are cases, people who are controls,
10 and then you are looking at what is the frequency of
11 their exposure to something. So it's not really --
12 it's not saying there's three times the likelihood of
13 an outcome here.

14 Q. (By Mr. Wisner) Oh, I didn't suggest
15 that. I was saying that there -- in this group of
16 people, the people who were exposed to Roundup had
17 three times more incidence of NHL than the people who
18 weren't. That's what I was saying.

19 MR. BRENZA: Asked and answered.

20 A. No, that's not what an odds ratio means.

21 Q. (By Mr. Wisner) So you just said it
22 reflects the frequency of the cases and the controls?

23 A. It reflects the frequency of the exposure
24 in the cases and controls, so it's not really a direct

1 look at their -- the likelihood of them getting the
2 disease. The question of do they have the disease or
3 not is already answered when they're assigned case and
4 control.

5 Q. Sure. And I wasn't talking about the
6 likelihood of getting a disease. You keep throwing
7 that in there. That was never in my question, so I --
8 you can keep saying that, but I'm not saying that to
9 you right now; okay?

10 What I'm saying is so what this 3.04 means
11 is in a group of people who -- okay. People who have
12 non-Hodgkin's lymphoma in this study are more likely to
13 have been exposed to Roundup? Is that a fair
14 statement.

15 MR. BRENZA: Asked and answered.

16 A. Based on the odds ratio, what you're
17 seeing is we have cases, we have controls. They
18 have -- whatever outcome of interest. This is
19 generally for a case control study. And again, it's --
20 what the odds ratio measures is the frequency of
21 exposure in those two groups.

22 Q. (By Mr. Wisner) Exactly. And people who
23 were exposed to glyphosate in this study were more
24 likely to have non-Hodgkin's lymphoma than the people

1 who weren't?

2 MR. BRENZA: Asked and answered.

3 Q. (By Mr. Wisner) Not to get it, but had
4 it?

5 MR. BRENZA: Asked and answered.

6 A. No, that's not how an odds ratio works.

7 Q. (By Mr. Wisner) Okay. Well, then tell me
8 what that means. I keep asking you to do that and you
9 -- okay.

10 MR. BRENZA: Asked and answered.

11 A. Yeah. So -- sure. So really, again, it's
12 -- in a case control study, you have --

13 Q. (By Mr. Wisner) No, no. Don't talk about
14 a case. Talk about this one right here, this 3.04.
15 What does that mean?

16 A. Okay, so the 3.04 we interpret in light of
17 -- this is for the univariate analysis where we haven't
18 adjusted for other pesticides, other exposures, other
19 lifestyle factors.

20 We have a confidence interval that is very
21 large. It's the largest of all the ones reported here,
22 indicating a lot of uncertainty. It goes from 1.08 to
23 8.52. The central tendency for that odds ratio is
24 3.04.

1 So really what they're saying is this
2 number is anywhere from pretty much one up to 8.52, and
3 that is just a measure of the frequency of use among
4 the cases and controls. They're simply comparing
5 frequency of use among them without adjusting. When
6 they adjust that relationship decreases and goes away.

7 Q. (By Mr. Wisner) Well, it doesn't go away;
8 it's still 1.85.

9 A. It's not statistically significant.
10 Again, there's a large confidence interval, and it
11 covers one, indicating that there is no difference
12 between the two is still part of our understanding.

13 Q. In any event, what we have here in the
14 univariate analysis is an odds ratio of 3.04. We have
15 the multivariate analysis of 1.85. That's what it
16 reads here; right?

17 MR. BRENZA: Asked and answered.

18 A. Those are the numbers in the odds ratio
19 table, but the confidence intervals are actually
20 showing us how much confidence we have in those values.
21 And what they're saying is as we adjust, our confidence
22 becomes that there is no difference between cases and
23 controls is now very much part of our understanding of
24 these results.

1 Q. Okay. I appreciate you want to talk about
2 confidence intervals, and that's fine, but before we
3 get there, this says 3.04 for the univariate and 1.85
4 for the univariate; right?

5 MR. BRENZA: Asked and answered.

6 A. Those are the numbers in those two
7 columns, but again, the confidence interval is
8 essential when understanding epidemiology data.

9 Q. (By Mr. Wisner) I'm going to move to
10 strike your answer as nonresponsive. I didn't ask you
11 about confidence levels. In fact, I specifically said
12 I'm not asking you about it, so if you could just
13 answer my question, I'd appreciate that. I'm going to
14 ask you about them. I'm not going to leave it
15 untouched. I promise. But if you could just answer my
16 questions, that would be very helpful, sir. So again,
17 I'll try this one more time.

18 Under the univariate analysis the odds
19 ratio is 3.04 and under the multivariate it's 1.85;
20 correct?

21 MR. BRENZA: Asked and answered.

22 A. Again, those are the numbers there, but
23 that confidence interval is essential to understand
24 what those numbers mean. It's an essential part of the

1 context.

2 Q. (By Mr. Wisner) I understand, and I'm
3 going to ask you about it. So now that we've agreed
4 that's what it says here on the page, okay, this
5 confidence interval right here for the univariate
6 analysis goes from 1.08 to 8.52; right?

7 A. That's correct.

8 Q. So that means you could be as low as one,
9 as high as 8.5?

10 A. Before -- those are the values it would be
11 before we adjust for other exposures or other lifestyle
12 factors that could be confounding our outcome.

13 Q. I understand, but I'm asking you about
14 what's written right here on this page and you keep
15 going elsewhere. Is there a reason why you don't want
16 to talk about that number, sir?

17 A. Well, we're under the univariate ---

18 Q. Sure. And that's what I'm asking you
19 about.

20 A. -- and that's -- and so the important
21 thing is to understand univariate means we haven't made
22 any adjustments for any other confounders in this
23 study, and these are the results we get.

24 Q. I agree. I agree. I understand that. So

1 with that understanding, that confidence interval is
2 between one and 8.5; correct?

3 A. With the understanding that we are looking
4 at an unadjusted exposure, so we don't what other
5 confounding factors are going to play a role.

6 Q. So then when we adjust -- right -- the
7 confidence interval goes from .5, right?

8 A. .55.

9 Q. All the way up to 6.2, right?

10 A. That's correct. A very large range.

11 Q. So it's possible it could be protected,
12 but it's also possible it could have six times?

13 A. Yeah. Essentially what this is showing
14 you is that we have so much -- the authors had so much
15 uncertainty. Even after adjusting they could not
16 exclude the possibility that there was no difference
17 between cases and controls.

18 Q. Well, it's interesting that you say what
19 the authors were thinking because they actually spoke
20 for themselves. If you look down here, it says the
21 results in the multivariate analysis must be
22 interpreted with caution since exposure to different
23 types of pesticides correlate. You see that?

24 A. And which paragraph is this?

1 Q. It's right on the same page. Just down --
2 it's on the screen. It's highlighted.

3 A. Could you give me the paragraph numbers?
4 So this is on that left column; is that correct?

5 Q. Yes. Left column, third paragraph on the
6 table we were just looking at. Do you see that? The
7 results -- if you just look on the screen, it's right
8 there.

9 A. All right. So the end of the paragraph?
10 All right.

11 Q. You there?

12 A. Yes, I am.

13 Q. So that's what the authors are saying,
14 right?

15 MR. BRENZA: Mischaracterizes the
16 document.

17 A. You know, again, this is one where we have
18 to consider -- I see the text you're describing, but
19 you look right before that, significantly-increased
20 risk remained only for the heterogenous group of other
21 herbicides, and so what they're saying is when they
22 adjusted for other exposures, there was just this
23 poorly-defined group other herbicides where they saw
24 something.

1 Q. (By Mr. Wisner) And they're specifically
2 saying focusing on the multivariate analysis, which is
3 exactly what you did, should be done with caution?
4 That's what they said?

5 A. But what they're saying is all the
6 relationships went away. To me, I read that as a
7 caution of when we -- exposure to different types of
8 pesticides correlate, and so what they're saying is as
9 I read that, there are things here that we're not
10 accounting for. When we account for some of it, we see
11 this relationship decrease, but there may be other
12 confounders there that we still haven't found, and then
13 they sort of leave the table open. They don't define
14 what they're talking about.

15 Q. Yeah. That's exactly right. So that's in
16 2002 they raise these issues.

17 A. Uh-huh.

18 Q. And I mean, I guess the first question is,
19 is did Monsanto at that point conduct an
20 epidemiological study?

21 A. No, because this study, as I describe,
22 doesn't raise a question. We have a very small number
23 of cases and controls. There's only 16 people here.
24 And when we look at the data in Table 7, as they adjust

1 for other exposures, the relationship goes away and
2 becomes nonsignificant.

3 Q. I understand. I mean, you're sitting here
4 and criticizing these researchers who are spending
5 their own time to try to look at this issue, and you're
6 saying they did all these things wrong. And I got
7 that, sir. Why didn't Monsanto then do it right?

8 MR. BRENZA: Asked and answered.

9 A. So when you look at this data, this study
10 does not say that concern for us. It does not say
11 there's something here that we need to look into. What
12 we're seeing is small numbers of people, very large
13 estimates of the odds ratio. This paper really isn't
14 of a quality to inform that kind of a decision. You
15 wouldn't take information like this and then go out and
16 start conducting very large-scale studies.

17 Q. (By Mr. Wisner) So this wasn't enough to
18 do anything?

19 A. This study --

20 MR. BRENZA: Asked and answered.

21 A. -- is not sufficient to raise any concern,
22 because it shows no relationship.

23 Q. (By Mr. Wisner) Well, that was two
24 thousand and -- was that 2002? Is that right? Right,

1 sir?

2 A. Sorry. 2002, yes, when they published it.

3 Q. Well, just before that came out, there was
4 another study called McDuffee. Are you familiar with
5 that study?

6 A. Yes, I am.

7 Q. Now, before it actually was published,
8 Monsanto got a sort of preview what the results were;
9 right?

10 A. Do you have a document you would like to
11 discuss?

12 Q. Yeah. Sure. Sure. I'm handing you
13 Exhibit 10.

14 [Exhibit 10 marked for identification.]

15 [Exhibit 11 marked for identification.]

16 [Exhibit 12 marked for identification.]

17 A. And if I could just have a moment to
18 review, please.

19 MR. WISNER: Sure. Let's go off the
20 record.

21 THE VIDEOGRAPHER: We are going off the
22 record at 10:50 AM.

23 [A brief recess was taken.]

24 THE VIDEOGRAPHER: We are back on the

1 record at 11:02 AM.

2 MR. BRENZA: I'm going to allow the
3 witness to review these documents. I've allowed him to
4 review them off the record. What I don't want to have
5 happen is have an on-again, off-again thing. The time
6 he spends orienting himself to documents is part of the
7 time that's allocated for this deposition. I'll let it
8 go on for these three, but let's not make a habit of
9 it.

10 MR. WISNER: I'll just say for the record
11 that this deposition is being taken in the MDL and in
12 the JCCP, and under California law there is no time
13 limits for these depositions. Now, we're doing our
14 best to try to get it done in a day, which is why --
15 so --

16 MR. BRENZA: And he's not taking an
17 extraordinarily long periods of time so -- to review
18 these documents.

19 MR. WISNER: Okay, fair enough. I just
20 wanted you to know that's our position. We'll do our
21 best to get through this. It's --

22 MR. BAUM: Another thing is that we gave
23 most of these documents, if not all of them, to you all
24 in advance.

1 MR. BRENZA: We have not received these
2 documents in advance to my knowledge.

3 MR. WISNER: For the record, we gave these
4 documents.

5 MR. BRENZA: Is this part of the 500?

6 MR. WISNER: Yeah.

7 MR. BAUM: Yeah.

8 MR. BRENZA: Okay. That obviously --
9 we can't be a master of 500 documents.

10 MR. WISNER: No, I understand. I
11 understand.

12 MR. BRENZA: But if you would have given
13 us the ones --

14 MR. BAUM: But one of the reasons we gave
15 them to you was so that they would be --

16 MR. WISNER: It's okay, Michael. Let's
17 just get started. I don't want to spend time fighting.

18 Q. (By Mr. Wisner) All right, Doctor. Thank
19 you for having a chance -- you had a chance to review
20 Exhibits 10, 11, and 12?

21 A. Yes.

22 Q. We'll start off with Exhibit 10. This is
23 an e-mail exchange from Dr. Acquavella to several
24 Monsanto employees. Do you see that?

1 A. Yes, I do.

2 Q. And including those employees, of course,
3 is Dr. Farmer. Do you see that?

4 A. Oh, yes. Yes, I do.

5 Q. William Heydens?

6 A. I'm having a hard time finding Dr.

7 Heyden -- oh, there we go. Yes.

8 Q. Dr. Goldstein?

9 A. Yes.

10 Q. And Dr. Wratten?

11 A. There's Wratten. So I don't actually know
12 if he's Dr. Wratten.

13 Q. He actually might not be a doctor. Okay,
14 fine. Stephen Wratten. Do you see that?

15 A. Yes.

16 Q. And so this was a document sent by
17 Acquavella as part of his employment at Monsanto,
18 correct?

19 A. That's correct.

20 Q. And he writes all, the Canadian NHL
21 glyphosate abstract we discussed last week is on the
22 internet, so I think it is fair game to distribute, see
23 attached.

24 I am planning to attend the presentation

1 of this paper to talk to the author. I note that one
2 of her coauthors, J. R. McLaughlin, is an
3 epidemiologist I recently recruited to serve on
4 American College of Epidemiology Admissions Committee,
5 which I chair. You see that?

6 A. I do see that.

7 Q. And he goes on, I think we might want to
8 include him or even perhaps the first author after I
9 check her out. In the scientific outreach meeting, we
10 were thinking about for Canadian scientists.

11 Do you see that?

12 A. I do see that.

13 Q. Do you know what scientific outreach
14 meeting he's referring to?

15 MR. BRENZA: Beyond the scope.

16 A. Yeah, scientific outreach meeting. Not
17 without additional chair -- additional context.

18 Q. (By Mr. Wisner) He says I can't stress
19 enough that we cannot take this abstract at face value.
20 Do you see that?

21 A. I do see that.

22 Q. And if you turn the page, there's the
23 attachment to it, and this is that abstract that he's
24 referring to in his e-mail; right?

1 A. Yes.

2 Q. And if you look at the very bottom of the
3 abstract -- and the title of the abstract is
4 non-Hodgkin's lymphoma and the pesticide hypothesis,
5 dose response. Do you see that?

6 A. I do see that.

7 Q. And dose response -- that's the general
8 scientific principle that the more exposure you have to
9 something, the more likely that disease outcome occurs?

10 A. It -- well, if that disease outcome is
11 associated with the exposure.

12 Q. Absolutely -- right.

13 A. So if this is something capable of -- if
14 this substance is capable of resulting in a given
15 disease, then the general understanding is the greater
16 the exposure, the more likely that outcome is.

17 Q. Exactly. So like for example, if you
18 smoke three packs a day as opposed to one pack a day,
19 your likelihood of getting lung cancer is higher;
20 right?

21 MR. BRENZA: Beyond the scope.

22 A. Yeah, that's -- typically, I think about
23 as a toxicologist, I worked with petroleum products.

24 Q. (By Mr. Wisner) And the more exposure you

1 have to those particular petroleum products, the
2 greater your risk of getting a particular disease?

3 MR. BRENZA: Beyond the scope.

4 A. That's right.

5 Q. (By Mr. Wisner) And at the bottom of this
6 abstract -- I have it on the screen here. It's
7 Subpoint B. It's at the very bottom, and it says --
8 well, it starts off with models which explore the
9 relationships among the number of days per year of
10 personally applying mixing individual compounds and
11 risk of NHL showed.

12 Do you see that?

13 A. I do see that.

14 Q. And then it said no relationship to
15 increasing days of exposure and it lists a couple of
16 different pesticides. You see that?

17 A. I do see that.

18 Q. But then it says, B, for more than two
19 days per year of exposure to glyphosate resulted in an
20 odds ratio of 2.11 with a confidence interval of 1.20
21 to 3.72. Do you see that?

22 A. I do see that.

23 Q. So that's what was written in the original
24 abstract; right?

1 A. So at this point in time we have not
2 conducted an epidemiological study, but we have a large
3 amount of information available about glyphosate and
4 the surfactants to understand any relationship there
5 may have been with cancer, and those results showed us
6 there was not.

7 Q. (By Mr. Wisner) And at this point the
8 only epidemiological data that Monsanto had available
9 to it considering it hasn't generated any of itself,
10 was the study by Hardell; right?

11 MR. BRENZA: Compound. Asked and
12 answered.

13 A. So the Hardell data don't show a
14 relationship. They show a very large scatter in the
15 data that as you adjust it for other exposures, the
16 relationship goes away.

17 Q. (By Mr. Wisner) I'm going to move to
18 strike your answer as nonresponsive. That wasn't my
19 question.

20 A. Okay. I'm sorry.

21 Q. I'll have the court reporter read it back.
22 [The pending question was read by the
23 reporter.]

24 MR. BRENZA: Compound. Asked and

1 published; correct?

2 A. Yes. This is a study from Dr. McDuffee
3 and her team.

4 Q. That's right. And it's titled
5 non-Hodgkin's lymphoma and specific pesticides
6 exposures in men, cross-Canada study of pesticides and
7 health. Do you see that?

8 A. That's correct.

9 Q. And as we see here, Dr. McDuffee -- and
10 you can see the abstract here that was ultimately
11 published; right?

12 A. I do see that.

13 Q. And there is no reference to the greater
14 than two days use result for glyphosate, is there?

15 A. Let me just make sure. There is no
16 mention of that.

17 Q. But if we turn the page and you actually
18 dig into the article. And Doctor, just to be clear,
19 because it's not in the abstract, that means it
20 wouldn't be picked up on literature searches; right?

21 A. No, that's incorrect.

22 Q. And if you look at Table 8.

23 A. Yes.

24 Q. And here we have the frequency of exposure

1 to selected herbicides, insecticides, fungicides, and
2 fumigants stratified by the number of days per year of
3 exposure. Do you see that?

4 A. I do see that.

5 Q. And of course we have the glyphosate
6 number. Do you see that?

7 A. Yes, I do.

8 Q. And for people who are exposed between
9 zero and two days per year, there is no elevated rate;
10 correct?

11 A. That's correct.

12 Q. And same thing for people who are
13 unexposed; right?

14 A. That is correct. They're used as a
15 reference group, so they're just automatically one.

16 Q. Great. The unexposed, but the zero to
17 two --

18 A. Unexposed.

19 Q. -- is being studied, and it just shows
20 nothing?

21 A. Yes. They're being compared back to the
22 unexposed.

23 Q. But then when you look at greater than two
24 days per year we have an odds ratio of 2.12. Do you

1 see that?

2 A. I do see that.

3 Q. And that result, according to this, is
4 statistically significant, correct?

5 A. Yes, it is, based on what appears to be a
6 rather small sample size of the entire population.

7 Q. And then the authors obviously reach a
8 conclusion in this study; correct?

9 A. Yes. Generally in scientific
10 publications, the authors reach conclusions.

11 Q. And I'm sure you've had a chance to review
12 the conclusion in the study?

13 A. Is there a particular part that you want
14 to discuss?

15 Q. Well, why don't we talk about glyphosate?

16 A. Okay.

17 Q. I'm having a hard time finding it, though.
18 Usually I have these highlighted. I apologize. While
19 you're taking a look at it too, I'm going to look for
20 it. Tell me, do you see the written conclusion about
21 -- discussion about glyphosate in here? Oh, I found
22 it. Here we go. So if you look on Page 1160.

23 A. Okay.

24 Q. And you look at the left column paragraph,

1 starting with Table 8.

2 A. Uh-huh.

3 Q. It says -- it has a sentence, and it goes
4 in general the results of these dose response analysis
5 were consistent with exposed/non-exposed findings. Do
6 you see that?

7 A. I do see that.

8 Q. Those compounds for which we found
9 statistically-significant case control differences also
10 have elevated odds ratios based on strata of the
11 variable days per years of exposure. Do you see that?

12 A. I do see that.

13 Q. And it lists a bunch of pesticides?

14 A. It do see that. DDT, captan, carbon
15 tetrachloride.

16 Q. That's right. And then it goes on --

17 A. Malathion.

18 Q. Sorry.

19 A. Malathion -- sorry -- is the last --

20 Q. Then it goes the expectations were 2,4-D.
21 Okay. The expectations were 2,4-D for which there was
22 no dose response relationship --

23 MR. BRENZA: That's not what the document
24 says.

1 A. Exceptions --

2 Q. (By Mr. Wisner) Okay. Thank you. The
3 exceptions were 2,4-D, for which there was no
4 dose-response relationship, and glyphosate, which was
5 not significant for exposure but for which we
6 demonstrated a dose-response relationship. Do you see
7 that?

8 A. I do see that.

9 Q. So these authors are stating that their
10 data showed or demonstrated a dose-response
11 relationship. You see that?

12 A. They're saying that based on what's shown
13 in Table 8, and I think the important thing to keep in
14 mind here -- Table 8 -- the important note there is the
15 footnote. Footnote A. Odds ratios calculated with
16 strata for the variable's age and province of
17 residence. So that -- what that tells us about Table 8
18 is it's not following the full adjustment model.

19 So Table 7 is where they make full
20 adjustments for everything they're able to adjust for,
21 other exposures. When we look at Table 7 -- I'm
22 sorry -- Table 2 for glyphosate -- when they -- they
23 don't see an overall relationship, but most importantly
24 when they make that adjustment for other exposures or

1 other lifestyle factors, place of residence, other
2 pesticides, what they're getting is a reduced
3 relationship, and so we know that Adjustment B reduces
4 the relationship. And so when we go to Table 8 and we
5 see they've only done the smaller, less sophisticated
6 adjustment, this does not reflect the more complete
7 understanding of what other confounders they were
8 picking up.

9 Q. Well, let's break that down a little bit
10 just because I think there might be a little confusion
11 here. Table 8 reflects people who used it greater than
12 two days per year; right?

13 A. It reflects people who used it greater
14 than two -- well, zero to two and greater than two, but
15 it doesn't have the adjustments for the other factors
16 that these authors found were confounding their
17 outcomes.

18 Q. We're going to break that down in a
19 second, but you understand that this shows people who
20 used it greater than two days per year; correct?

21 MR. BRENZA: Asked and answered.

22 A. It shows data for people who are unexposed
23 zero to two days per year without adjusting for other
24 exposures or lifestyle factors.

1 Q. (By Mr. Wisner) And then what you
2 referred to on Table 2, that's the never, ever
3 analysis; right?

4 A. Yes, but it contains this adjustment for
5 other exposures, other lifestyle factors, and that
6 indicates the relationship tends to diminish when we
7 adjust for where do people live, what's their disease
8 history, what other exposures.

9 Q. You keep going to things that I'm not
10 asking you about. So my question was, Table 2 reflects
11 to a never, ever analysis; correct?

12 A. It does, but I think we can't --

13 MR. WISNER: Okay. I'll get into the next
14 stuff. One step at a time.

15 MR. BRENZA: Yeah, but the witness needs
16 to be allowed to finish their -- his answer.

17 Q. (By Mr. Wisner) He's not answering the
18 question. He's answering a different question, and I'm
19 going to ask that question, but I need you to be
20 responsive to my question. So the question for you was
21 very simply yes or no, does Table 2 reflect the never,
22 ever analysis?

23 A. Table 2 reflects the never, ever analysis
24 with two models for adjustment. Both those -- and

1 those models for adjustment show us that as we
2 adjust from our lifestyle factors, these relationships
3 diminish.

4 Q. Move to strike your answer as
5 nonresponsive. I didn't ask you about that, sir. I'm
6 going to now, but you need to answer my question.
7 We'll be here all day if you keep throwing in the
8 question you wish I asked instead of the question I
9 asked you. It's not how this proceeding works, and if
10 a judge was here, I would instruct you to do that, but
11 I can't do that because we're in a deposition. All
12 right. So Table 2 -- I'll try this one more time.
13 This Table 2 reflects the never, ever analysis;
14 correct?

15 MR. BRENZA: Asked and answered.

16 A. Again, my answer is the same. It reflects
17 a never, ever analysis with two models of adjustment
18 showing that as we adjust for other exposures and
19 lifestyle factors, the relationship diminishes. That's
20 the point of the table.

21 Q. So let's go into those other exposures
22 that you're talking about. What are you talking about?

23 A. So this is -- if you look at OR -- so
24 these are the last two columns.

1 Q. Sure. I'm looking at B.

2 A. Odds ratio, it's got Footnote A and odds
3 ratio adjusted has Footnote B.

4 Q. Yeah. Show me one exposure in there that
5 you're talking about.

6 A. So then we go down and we look at -- odds
7 ratios calculated with strata for the variables of age
8 and province of residence. So just -- A is just my
9 age, where do I live in Canada.

10 Q. And that's not an exposure?

11 A. Broadly speaking within epidemiology that
12 would be your exposure, but it's more about a
13 demographic than anything else. So then B, significant
14 medical variables, history of measles, mumps, cancer,
15 allergy desensitization shots, and a positive family
16 history of cancer in a first-degree relative, and with
17 strata for the variables of age and province of
18 residence.

19 Q. So those aren't really exposures either?

20 A. I would classify those as exposures.
21 Those are disease states. Allergy desensitization
22 shots, positive family history of cancer, could be
23 getting it -- a first-degree relative could be getting
24 at a genetic predisposition. What they're doing is

1 just saying these are the things that we saw as
2 confounders and when we adjust for them, here's our
3 results.

4 Q. But they didn't adjust for pesticides;
5 right?

6 A. They're -- not as we describe it there.
7 Later on they talk about -- I believe they look at that
8 question.

9 Q. Yeah. Table 7.

10 A. Sorry. So they have -- yeah. So then
11 they have -- in Table 6 and 7 they talk about looking
12 at what other exposures do they consider.

13 Q. And they concluded that they didn't
14 contribute to NHL?

15 A. They concluded that given their dataset in
16 Canada, they did not find a contribution from those
17 factors.

18 Q. So when we look at this, this Table 8,
19 which you say didn't adjust for other exposures, it did
20 adjust for age and province; right?

21 A. Yes, but it failed to adjust for all the
22 other factors we discussed such as diseases, allergy
23 shots, family history of cancer, or cancer themselves.

24 Q. Well, you know non-Hodgkin's lymphoma is

1 not a genetic disease? You know that; right?

2 MR. BRENZA: Beyond the scope of the
3 deposition.

4 A. So I am not a medical expert in the causes
5 of non-Hodgkin's lymphoma, but what they're saying here
6 is as they adjusted for these other factors, their
7 relationships changed and what they saw for glyphosate
8 is the relationship tended to diminish.

9 Q. (By Mr. Wisner) Fair enough. But what
10 they actually stated on this paper -- I mean, you
11 interpret it that way, but what -- they've actually
12 stated that this data demonstrates a dose-response
13 relationship; correct?

14 MR. BRENZA: Asked and answered.

15 A. In the unadjusted model they make that
16 statement.

17 MR. WISNER: That's what the authors
18 decided to conclude; right.

19 A. Yeah, when they don't account for other
20 things that could be contributing, could be confounding
21 their results.

22 Q. (By Mr. Wisner) But that's not what they
23 conclude?

24 MR. BRENZA: Asked and answered.

1 A. Is there a section you'd like to discuss?

2 Q. (By Mr. Wisner) We've already read it a
3 couple times now. Read it again. It's on Page 1160 --

4 A. Uh-huh.

5 Q. -- and it's the only discussion of
6 glyphosate, and it says the data demonstrated a
7 dose-response relationship. That's what they conclude.

8 A. Well --

9 MR. BRENZA: Asked and answered.

10 A. -- I don't know that that's a conclusion.
11 That's a result. So we're in the results section.

12 Q. (By Mr. Wisner) Sir, after you got the
13 McDuffee article, did Monsanto then conduct their own
14 case control study that adjusted for all the things you
15 say they should have adjusted for?

16 A. So they've adjusted for it here, and what
17 it shows is the relationship diminishes over time, so
18 this doesn't really give us a reliable basis to say
19 there's a relationship between the use of glyphosate
20 and cancer.

21 Q. So this study in your view doesn't tell
22 you that there's any increased risk for greater than
23 two days exposure to Roundup?

24 A. What it does is it says when they did this

1 partial adjustment, they had the results they had, but
2 that's a partial adjustment. When we do the full
3 adjustment, when we're able to account for other
4 exposures people have had in their lives, their
5 relationship diminishes.

6 Q. So I'm just curious, where do the authors
7 ever make that statement that this shows no evidence of
8 any risk?

9 A. I don't think that's really -- I don't
10 think the authors talk about evidence of risk. They're
11 talking about an odds ratio. They're not measuring
12 risk. So again, it's an odds ratio that looks at the
13 odds of exposure among two different groups. This
14 doesn't really talk about relative risk. That's more
15 of a cohort study.

16 Q. But I mean, they did state -- and we've
17 read it a couple times -- that the data demonstrated a
18 dose-response relationship. That's what they stated;
19 right?

20 MR. BRENZA: Asked and answered.

21 A. Well, when they discuss Table 8 -- only
22 where they discuss Table 8 for the unadjusted data.

23 Q. (By Mr. Wisner) And they didn't say after
24 that but ignore this because it didn't adjust for

1 confounders that might have been an issue in the never,
2 ever analysis?

3 MR. BRENZA: Asked and answered.

4 A. So again, this is an analysis with
5 unadjusted data. When you actually look at what
6 happens when you adjust the data for other exposures
7 and lifestyle factors, the relationship diminishes and
8 goes away. So we have no reason to believe that what
9 they're seeing here unadjusted is really going to
10 impact anything. It's really telling us something.

11 Q. (By Mr. Wisner) So I want to be clear
12 then. We're back to epi; right? We've gone through
13 the Hardell 1998; right?

14 A. I believe it's 1999.

15 Q. Sorry. 1999.

16 A. I'm pretty sure.

17 Q. We went through Hardell 2002; right?

18 A. Yeah. And the first Hardell is 1999, and
19 the second Hardell is 2002.

20 Q. And we went through McDuffee, which is
21 2001; right?

22 A. Let's make sure. I believe -- 2001.

23 Q. And we just went through the article and
24 we've gone through these three articles, and it's your

1 testimony still under oath that these studies do not
2 constitute any evidence of an association between
3 Roundup exposure and non-Hodgkin's lymphoma?

4 A. They do not, because what we're seeing in
5 them is relationships reported for very small sample
6 sizes like we see in Hardell and McDuffee. What we're
7 seeing is as you have an understanding of what other
8 factors, whether the lifestyle or exposure -- when you
9 have an understanding of how they relate to the
10 outcomes of your study when you adjust for them, the
11 relationship diminishes and is no longer significant.

12 Q. I handed you another document. This is an
13 e-mail exchange that's been produced in this
14 litigation. It's Exhibit 13.

15 [Exhibit 13 marked for identification.]

16 A. Can I have a minute to take a look here?

17 Q. Sure.

18 A. All right.

19 Q. And is this is an e-mail exchange between
20 Dr. Farmer, Dr. Acquavella, and other Monsanto
21 employees. Do you see that?

22 A. I do.

23 Q. Including Dr. Heydens?

24 A. Yes, I do.

1 Q. Dr. Goldstein?

2 A. Yes.

3 Q. And this was a document that was shared
4 amongst Monsanto employees in the ordinary course of
5 their business?

6 A. That's correct.

7 Q. If you look at the bottom e-mail here,
8 it's from Dr. Acquavella. He talks about -- he's
9 talking about the McDuffee article. Do you see that?

10 A. I do see that.

11 Q. And he says the McDuffee article appeared
12 in the November issue of the journal Epidemiology
13 Biomarkers and Prevention. See abstract below. Unlike
14 the abstract presented at the International Society for
15 Environmental Epidemiology meeting, August 1999,
16 glyphosate is no longer mentioned as a risk factor in
17 the abstract. You see that?

18 A. I do see that.

19 Q. It says I will have to get the article and
20 see what it says in the small print; right?

21 A. I do see that.

22 Q. And then if you read, Donna Farmer
23 responds to this, John, I know. We don't yet know what
24 it says in the small print, but the fact that

1 glyphosate is no longer mentioned in the abstract is a
2 huge step forward. You see that?

3 A. I do see that.

4 Q. Then she says it removes it from being
5 picked up by abstract searches, exclamation mark. You
6 see that?

7 A. I do see that.

8 Q. So earlier when I asked you if it would
9 get picked up in abstract searches, is Donna Farmer
10 just wrong here?

11 MR. BRENZA: Beyond the scope.

12 A. So you asked -- you didn't ask about
13 abstract searches. You asked about literature
14 searches. And so --

15 Q. (By Mr. Wisner) So it wouldn't get picked
16 up in abstract searches but it could still be picked up
17 in literature searches?

18 A. Yes. So -- when you do an abstract
19 search, what you're doing is saying specifically look
20 only at the abstract. When you do a regular literature
21 search, you're saying look for the whole paper.

22 Q. And Dr. Farmer is celebrating that it
23 won't be picked up in abstract searches, isn't she?

24 MR. BRENZA: Beyond the scope.

1 Q. (By Mr. Wisner) Let me get my question
2 out before you guys object. Dr. Farmer is celebrating
3 that searching -- abstract searches won't pick up the
4 glyphosate result; correct?

5 MR. BRENZA: Beyond the scope. Calls for
6 speculation. Vague.

7 MR. WISNER: Dude, I didn't get my
8 question out again.

9 MR. BRENZA: I thought you were done.

10 MR. WISNER: Just give me a half-second.
11 I'm sure he'll let you object; okay.

12 Q. (By Mr. Wisner) So here Dr. Farmer is
13 celebrating that the glyphosate result will not be
14 picked up in abstract searches; correct?

15 MR. BRENZA: Beyond the scope. Vague.
16 Asked and answered.

17 A. When I look at this, I don't know
18 celebrate is the right term for it, but what I don't
19 understand is why -- the meaning of -- the impact of
20 the abstract search, because when I do literature
21 searches, you just do a basic search. It gives you a
22 search of the whole text. The abstract search is
23 something you have to specifically ask for. And so a
24 regular literature search would pick this up. And it

1 does get picked up when an agency does a review --

2 Q. But apparently she's happy that it won't
3 be there.

4 MR. BRENZA: Calls for speculation. Asked
5 and answered.

6 A. Yeah, I can't speak to what --

7 MR. BRENZA: Let me get my objection --

8 A. I'm sorry. I'm sorry. I didn't know you
9 were -- go ahead.

10 Q. (By Mr. Wisner) Try again. So apparently
11 she's happy from it not being there?

12 MR. BRENZA: Calls for speculation.
13 Beyond the scope.

14 A. I don't really know exactly what Dr.
15 Donna -- or what Dr. Farmer is referring to here in
16 terms of -- you're describing an emotion for her, and I
17 can't really characterize her behavior one way or the
18 other.

19 Q. She uses an exclamation mark. Doesn't
20 that show excitement?

21 MR. BRENZA: Asked and answered.

22 A. Again, for me to get inside of Dr.
23 Farmer's head to understand what exactly she meant here
24 in 2001, it's just not possible.

█ [REDACTED]

10 Q. (By Mr. Wisner) Handing you Exhibit 15 to
11 your deposition.

12 [Exhibit 15 marked for identification.]

13 Q. Actually, before I hand this to you, I
14 just want to be clear. At this point with McDuffee and
15 the Hardell articles having now been published, is it
16 your opinion that there was no real concern within
17 Monsanto based on these studies that there might be an
18 association between glyphosate and non-Hodgkin's
19 lymphoma?

20 A. So Monsan --

21 MR. BRENZA: Calls for opinion.

22 A. Sorry. Do you want Monsanto's opinion --
23 Monsanto's views on that or my opinion?

24 Q. (By Mr. Wisner) Definitely Monsanto's.

█ [REDACTED]

8 [Exhibit 16 marked for identification.]

9 Q. This is another epidemiological study.
10 Have you had a chance to review this?

11 A. I just want to take a quick look at it,
12 make sure I'm refreshed on it. Thank you.

13 MR. BRENZA: And Brett, I don't know --
14 we'll probably want to stop around noon for lunch or
15 something --

16 MR. WISNER: What time are we now?

17 MR. BRENZA: About five minutes before
18 noon.

19 MR. WISNER: This will go pretty quick.
20 Let me just finish the epi. Epi pre-AHS. It's like
21 three documents.

22 A. All right. I'm ready if you --

23 Q. (By Mr. Wisner) So Exhibit 16 is a
24 document titled integrative assessment of multiple

1 pesticides as risk factors for non-Hodgkin's lymphoma
2 among men. Do you see that?

3 A. I do see that.

4 Q. This is an epidemiological study that
5 you've reviewed before?

6 A. Yes, it is.

7 Q. It's one that Monsanto was fully aware of?

8 A. That's correct.

9 Q. And this was done by authors De Roos, et
10 al. Do you see that?

11 A. I do see that.

12 Q. One of those authors is Dr. Dennis
13 Weisenburger. Do you see that?

14 A. I do see that.

15 Q. Dr. Dennis Weisenburger is an expert in
16 this litigation for the plaintiffs.

17 A. Okay.

18 Q. You didn't know that?

19 MR. BRENZA: Beyond the scope.

20 A. I've heard his name before.

21 Q. (By Mr. Wisner) But did you know that or
22 not?

23 A. No, I do not believe I knew that.

24 Q. You understand that this was a study that

1 was essentially coming out of the National Cancer
2 Institute?

3 MR. BRENZA: Object to form. Beyond the
4 scope.

5 A. Coming out of the National Cancer
6 Institute? So we have to look at the author
7 affiliations at the end to understand that.

8 Q. (By Mr. Wisner) Sure. Lead author, De
9 Roos, Division of Cancer Epidemiology and Genetics,
10 National Cancer Institute, USA. You see that?

11 A. I do see that, and then the other -- so
12 there's -- and then there's three others who were with
13 University of Nebraska, Kansas, and Iowa.

14 Q. Now, Dr. -- this publication explored
15 multiple exposures of pesticides and non-Hodgkin's
16 lymphoma; correct?

17 A. Yes, they were looking at ways to adjust
18 for other exposures.

19 Q. And one of those was in fact glyphosate;
20 correct?

21 A. It was included in this study.

22 Q. And when they did the analysis, the data
23 on glyphosate -- if you want to look at it, it's on
24 Table 3 -- using the logistical regression, showed a

1 odds ratio of 2.1. That was statistically significant;
2 correct?

3 A. They have a logistic regression and a
4 hierarchical regression.

5 Q. I specifically -- didn't ask you about the
6 hierarchical regression. I specifically asked you
7 about the logistic regression, and that says 2.1,
8 that's statistically significant; correct?

9 A. The number they have in the logistic
10 regression column is 2.1. The confidence interval
11 spans 1.1 to 4.0, but when you look at the hierarchal
12 regression, which is the purpose of this paper, the
13 purpose of this study, that's the adjusted model where
14 they adjust for other exposures, and they see the
15 relationship diminishes and becomes non-significant.
16 We have 1.6 with a confidence interval for 0.9 to 2.8.

17 Q. I actually said to you just before my
18 question I was not asking you about the hierarchical
19 regression, yet you chose to talk about it. Is that
20 because that's your talking point, sir?

21 A. No, sir, that is not my talking point.
22 That's the purpose of this paper. The reason they
23 conducted this study was to show the role of
24 hierarchical regression in adjusting for

1 other exposures.

2 Q. Is it your testimony under oath that this
3 logistical regression didn't adjust for other
4 exposures?

5 A. So what they're -- as -- we can go back to
6 the materials and methods and we can review how they
7 describe that if you like.

8 Q. Well, you said the hierarchical regression
9 is the one where they adjust it for other exposures.
10 Is it your testimony they didn't do that for the
11 logistical regression?

12 A. No, there are some adjustments you can
13 make with logistic regression, but for hierarchical
14 you're able to do a lot more to look at what other
15 things could possibly be confounding our results, and
16 that's what they're describing here. It's in fact
17 their overall conclusion.

18 Q. In fact, if you look at this table right
19 here, each estimate is adjusted for use of all
20 pesticides listed in Table 3, age and study site. You
21 see that?

22 A. Yes.

23 Q. So in fact, the logistical regression that
24 was statistically significant, that actually adjusted

1 for exposure to every other pesticide on this list?

2 A. So what they're doing when you look at the
3 discussion up here -- well, actually, in the back,
4 because it's also there as well. What they're
5 describing is we have this method of hierarchical
6 regression. We have logistic regression. It has some
7 limitations. We use hierarchical regression. The
8 results we get from that are different from what we get
9 from logistical regression. Therefore, we know we need
10 to think about how we do these studies differently.
11 That's really what they're talking about in this paper.

12 Q. Sir, you didn't even get close to
13 answering my question, so I'm going to move to strike
14 it as nonresponsive. I'm going to have him read back
15 my question.

16 [The pending question was read by the
17 reporter.]

18 MR. BRENZA: Asked and answered.

19 A. Could you read that again? I'm not
20 hearing the question in there.

21 [The pending question was read by the
22 reporter.]

23 MR. BRENZA: Asked and answered.

24 A. Okay. Now I think I understand. The

1 logistic regression is a way of adjusting for other
2 pesticide exposures, and what the authors are saying is
3 we used hierarchical regression to do a more I guess
4 you could say robust adjustment for those same
5 exposures, and when they do that, their relationships
6 diminish and tend to become non-significant. So it's
7 two different methods.

8 Q. (By Mr. Wisner) Again, not even close to
9 the question I asked. So I'm going to have him -- I'm
10 going to move to strike it again and have him ask the
11 question again, and hopefully this time you can answer
12 it.

13 A. Okay.

14 [The pending question was read by the
15 reporter.]

16 MR. BRENZA: Asked and answered.

17 A. The logistic regression does include an
18 adjustment for other pesticides.

19 Q. (By Mr. Wisner) Thank you.

20 A. The purpose of the paper, however, is not
21 to simply look at that. This is the standard model.
22 What they're saying is we have a better way. That's
23 the importance here. That's what I'm trying to say.

24 Q. Sir, I didn't ask you about the purpose of

1 the paper. Why are you testifying about it?

2 A. Because -- well, we're discussing this
3 paper, and I believe we're looking at only part of the
4 data. We're not looking at the full data or the
5 conclusions of the authors.

6 Q. We'll look at them. Sure. But I
7 asked you a very specific question and you started
8 giving me an answer I didn't ask a question about. Why
9 did you do that? Are you being evasive?

10 A. No, I am not being evasive.

11 Q. So why don't you just try answering my
12 question instead of giving me a different answer? My
13 question to you is very straightforward, and if you
14 can't answer it, that's fine, but on behalf of Monsanto
15 I'm asking you does this logistical regression result
16 that is statistically significant for glyphosate --
17 does it, based on your understanding, adjust for
18 exposure to the other pesticides on this list?

19 MR. BRENZA: Asked and answered.

20 A. It provides a form of adjustment that the
21 authors are saying can be improved upon.

22 Q. (By Mr. Wisner) Now, logistical
23 regression, sir -- you would agree with me that is the
24 method used in the AHS?

1 A. They used Poisson regression in the AHS.

2 Q. They also used logistical regression;
3 correct?

4 A. So do you have the document? We could
5 review it.

6 Q. I don't have it here. I don't --

7 A. Okay.

8 Q. They use it in -- all of the studies we've
9 looked at so far use logistical regression; correct?

10 A. Yes, and that is the point of De Roos.
11 That's what she's saying, is we need to do this
12 differently.

13 Q. And later on when Dr. De Roos reports the
14 results of this study, she doesn't ever report the
15 hierarchical results, does she?

16 A. Is there a part you'd like to refer to?

17 Q. Well, you've studied the data; right? She
18 never actually refers to the hierarchical --

19 A. Is there a section you'd like to discuss
20 specifically?

21 Q. I'm talking about later on in other
22 publications, she doesn't raise it as an issue; right?

23 MR. BRENZA: Vague. Question is vague.

24 A. I'm not sure what De Roos publications

1 you're referring to.

2 Q. (By Mr. Wisner) If you don't understand,
3 that's fine.

4 A. She has many other articles. That's
5 why --

6 Q. Sure. In 2005, she publishes a study
7 about the AHS; correct?

8 A. Yes. She is one of the authors of the
9 agricultural health study.

10 Q. And she actually reports on the results of
11 her 2003 study, which is what we're looking at; right?

12 A. She reports on it -- do you want to talk
13 about the agricultural health study from 2005?

14 Q. Just answer my question, sir.

15 MR. BRENZA: Asked and answered.

16 A. If we're going to discuss that
17 publication, I would need to see a copy of it.

18 Q. (By Mr. Wisner) So you can't answer my
19 question without the document in front of you?

20 MR. BRENZA: Asked and answered.

21 A. I'm not going to answer questions without
22 the document in front of me.

23 Q. (By Mr. Wisner) I didn't ask you if
24 you're going to. I asked you if you can. Are you

1 incapable of answering my question or not, sir?

2 MR. BRENZA: Calls for speculation.

3 A. I would need to see the document.

4 Q. (By Mr. Wisner) So that's a no, you can't
5 answer it?

6 A. I would need to see the document to answer
7 your question.

8 Q. So my question to you was Dr. De Roos
9 reports on her findings in 2003 in the 2005 article.
10 Do you understand that or you don't know?

11 A. You -- I understand the words you said. I
12 would need to see the article to confirm that's
13 correct.

14 Q. So if we look at what the authors in this
15 article say -- and you've repeatedly talked about the
16 purpose of the study. And what it says here is
17 glyphosate commercially -- this is on Page 7 of 9,
18 right-hand column. Glyphosate. Do you see that?

19 A. I do see that.

20 Q. It says glyphosate commercially sold as
21 Roundup is a commonly used herbicide in the United
22 States, both on crops and on non-cropland areas. An
23 association of glyphosate with NHL was observed in
24 another case-control study, but the estimate was based

1 on only four exposed cases. A recent study across a
2 large region of Canada found an increased risk of NHL
3 associated with glyphosate use that increased by the
4 number of days per -- used per year. These few
5 suggestive findings provide some impetus for further
6 investigation into the potential health effects of
7 glyphosate, even though one review concluded that the
8 active ingredient is noncarcinogenic and nongenotoxic.
9 Did I read that right?

10 A. Yes, you did.

11 Q. And if you actually look at the article --
12 she's actually specifically discussing the Hardell as
13 well as the McDuffee articles; correct?

14 A. I mean, I need to confirm that for me.

15 Q. Sure.

16 A. Yes, for the epidemiology she's referring
17 to Hardell and McDuffee papers.

18 Q. And in the one that she says it goes the
19 other way, she has citation to Number 50, right?

20 A. It goes the other way?

21 MR. BRENZA: Vague.

22 A. Could you just clarify which sentence,
23 please?

24 Q. (By Mr. Wisner) It's the sentence we just

1 read. She said few suggestive findings provide some
2 impetus for further investigation into the potential
3 health effects of glyphosate, even though one review
4 concluded that the active ingredient is
5 non-carcinogenic and non-genotoxic. You see that?

6 A. I do see that.

7 Q. So the one counter-study she cites is
8 Citation 50; correct?

9 A. That is correct.

10 Q. And if we look at what Citation 50 is,
11 that is the Williams, Kroes, and Munro article;
12 correct?

13 A. That is correct.

14 Q. You would agree this study, sir, from De
15 Roos 2003 -- it added fuel to the fire created by the
16 Hardell study?

17 MR. BRENZA: Vague. Beyond the scope.
18 Calls for speculation.

19 A. So if you mean by fuel to the fire it
20 created a legitimate interest on our part or a
21 legitimate need for more study or a reliable basis to
22 conclude there was some issue with glyphosate that
23 Monsanto needed to look into in some other way, no, I
24 would not agree with that.

1 Q. Well, I'm handing you Exhibit 17.

2 [Exhibit 17 marked for identification.]

3 Q. We can take a break right after this
4 document. All right. You've seen this document
5 before, sir?

6 A. I believe I have. I would just like a
7 moment to make sure I remember it correctly. All
8 right.

9 Q. So we have this series of e-mails. These
10 are e-mail exchanges between various Monsanto
11 employees; correct?

12 A. That's correct.

13 Q. Included among those are Dr. Acquavella,
14 Dr. Goldstein, Dr. Farmer; correct?

15 A. That is correct.

16 Q. Bill Heydens is on there?

17 A. Yes, Dr. Heydens is there as well.

18 Q. Sorry. I call him Bill Heydens
19 because that's how he called himself, but Dr. Heydens.
20 I didn't mean any disrespect.

21 A. Sure.

22 Q. And this is a document that was made in
23 the regular course of business; correct?

24 A. That is correct.

1 Q. And it's dated 2003, September?

2 A. That's correct.

3 Q. And in this e-mail, if you look at the
4 beginning part of it, it starts off with someone --
5 it's titled article re NHL and glyphosate, alachlor.
6 You see that?

7 A. I do see that.

8 Q. And if you look at the first e-mail, it's
9 actually citing the De Roos article we just looked at?

10 A. That is correct.

11 Q. And then Dr. Acquavella writes this
12 e-mail; correct?

13 A. Yes, that is correct.

14 Q. And he specifically -- he says
15 strangely -- you see that paragraph?

16 A. I do see that.

17 Q. Glyphosate looks to be one of the most --
18 one of the pesticides most associated with NHL in this
19 analysis. Do you see that?

20 A. I do see those words, yes.

21 Q. And he -- in the next paragraph he goes
22 the authors spent an entire paragraph in the discussion
23 on glyphosate, specifically mentioning the Hardell and
24 McDuffee studies. Do you see that?

1 A. Trying to catch up with where you are on
2 the page.

3 Q. Next paragraph.

4 A. Okay. All right. So he makes the
5 statements about the plausibility of the finding, then
6 he goes on and says what you had just read, so I see
7 those words, yes.

8 Q. And he actually pastes what appears to be
9 the paragraph we just read from the De Roos article;
10 correct?

11 A. I do see that.

12 Q. And he says, quote, I'm afraid this could
13 add more fuel to the fire for Hardell, et al; correct?

14 A. I do see that.

15 Q. And then if you look at the last sentence
16 in his e-mail he says it looks like NHL and other
17 lymphopoietic cancers continue to be the main cancer
18 epidemiology issues both for glyphosate and alachlor.
19 Do you see that?

20 A. I do see that.

21 Q. So after Dr. Acquavella said this would
22 add more fuel to the fire for Hardell, et al, and that
23 NHL continued to be the main cancer epidemiological
24 issue for glyphosate -- at that point Monsanto didn't

1 actually go and conduct their own epidemiological
2 study, did they?

3 MR. BRENZA: Beyond the scope.
4 Mischaracterizes the document.

5 A. One of the things he's describing here is
6 that we're assembling a panel of experts to work on
7 this. So he's saying we're going to bring in some
8 experts to take a look, look across the data, and
9 advise us on what it means and what we need to do going
10 forward.

11 Q. (By Mr. Wisner) Who are those experts?

12 A. That I don't know. That's what he's
13 describing here.

14 Q. And they didn't conduct any
15 epidemiological study; right?

16 A. There is nothing in this document that
17 would tell us one way or the other what they're -- who
18 those people were or what we did as a result of their
19 advice. But when I look at -- Monsanto's position is
20 when you take a look at all the data we've just gone
21 through with these studies, there's nothing there
22 providing reliable evidence that glyphosate use is
23 associated with cancer.

24 Q. So --

1 A. And so there wouldn't be a basis for
2 conducting such a study.

3 Q. Sorry, I didn't mean to interrupt you.

4 A. Yeah.

5 Q. I apologize. So we have Hardell, Hardell,
6 McDuffee, and now we have De Roos 2003; right?

7 A. That's correct.

8 MR. WISNER: Counsel, I have one more
9 study to go through. Do you want me to do that, or do
10 you want to take a break for lunch?

11 MR. BRENZA: Let's take a break for lunch.

12 MR. WISNER: Okay.

13 MR. BRENZA: We've been going for quite a
14 while.

15 THE VIDEOGRAPHER: We are going off the
16 record at 12:10 PM.

17 [A recess was taken.]

18 THE VIDEOGRAPHER: We are back on the
19 record at 1:05 PM.

20 Q. (By Mr. Wisner) Good afternoon, Doctor.

21 A. Good afternoon.

22 Q. I hope you had a good lunch.

23 A. I did.

24 Q. All right, I want to go back off where we

1 ended off. We were talking about epidemiology, and we
2 were talking about these various case control studies.
3 Do you recall?

4 A. Uh-huh. Yes, I do.

5 Q. I'd like to talk to you -- I just handed
6 you Exhibit 18. That is another case control study;
7 correct?

8 [Exhibit 18 marked for identification.]

9 A. I believe so. May I have a moment to
10 review --

11 Q. Please.

12 A. -- just to make sure I'm recalling
13 correctly. All right. Ready.

14 Q. All right. So this is a case control
15 epidemiological study; correct?

16 A. That is correct.

17 Q. And it was published in 2008?

18 A. That's correct.

19 Q. It's titled pesticide exposure as risk
20 factor for non-Hodgkin lymphoma including
21 histopathological subgroup analysis. Do you see that?

22 A. I do see that.

23 Q. And it's -- again, has two authors that
24 we've seen previously, Dr. Eriksson as well as Hardell?

1 A. That's correct.

2 Q. And there are some other researchers on
3 there as well?

4 A. That's correct.

5 Q. And this is a study that Monsanto has
6 reviewed and considered; correct?

7 A. That is correct.

8 Q. Now, this study listed results for
9 glyphosate; correct?

10 A. I'm sorry. It listed results?

11 Q. It has results for glyphosate?

12 A. Yes, it does. It includes results.

13 Q. If we turn to Table 7 on these results.
14 It's on Page 1661.

15 A. 1661. Yes, I see that.

16 Q. And here we have multivariate analyses
17 including agents according to specified criteria, see
18 text. Do you see that?

19 A. I do see that.

20 Q. And then it has two categories. One is
21 the univariate, one is the multivariate; right?

22 A. I do see that.

23 Q. And for glyphosate there is a univariate
24 result odds ratio of 2.02, which is statistically

1 significant, and there is a multivariate analysis
2 of 1.51, which is not statistically significant;
3 correct?

4 A. That's correct.

5 Q. And the authors also looked at sort of an
6 attempt at dose-response; correct?

7 A. I believe they did.

8 Q. And they looked specifically at -- draw
9 your attention to Table 2.

10 A. Yes.

11 Q. And this is exposures to various
12 herbicides; right?

13 A. That's correct.

14 Q. And they looked at glyphosate when it was
15 less than 10 days and when it was greater than 10 days;
16 right?

17 A. That's correct.

18 Q. And when it was less than 10 days, it was
19 an elevated odds ratio of 1.69, but it was not
20 statistically significant; correct?

21 A. That's correct.

22 Q. And when they looked at it for greater
23 than 10 days, it was elevated 2.36, and it was
24 statistically significant; correct?

1 A. That's correct.

2 Q. And the authors report on the glyphosate
3 data in this paper; correct?

4 A. Yes, they do.

5 Q. And if you look at starting at Page 661,
6 the bottom right paragraph.

7 A. That's correct.

8 Q. It's talking about glyphosate; right?

9 A. Yes.

10 Q. And it said glyphosate is a broad-spectrum
11 herbicide, which inhibits the formation of amino acids
12 in plants.

13 It talks about -- then it goes on, it's
14 kind of giving some history about some research and
15 stuff that's been done by various organizations.

16 A. Yes, it mentions that the U.S. EPA and the
17 World Health Organization have concluded that
18 glyphosate is not mutagenic or carcinogenic.

19 Q. Good. And then it also does report,
20 though, since then some experimental studies indicate
21 genotoxic, hormonal, and enzymatic effect in mammals as
22 reviewed. Of particular interest is that glyphosate
23 treatment of human lymphocytes in vitro resulted in
24 increased sister chromatid exchanges, chromosomal

1 aberrations, and oxidative stress.

2 That's what it says.

3 A. Those are the words.

4 Q. And then on the next page it kind of goes
5 into the actual study a little bit farther.

6 The authors state glyphosate was
7 associated with a statistically significant increased
8 odds ratio for lymphoma in our study, and the result
9 was strengthened by a tendency to dose-response effect
10 as shown in Table 2.

11 Do you see that?

12 A. I do see that.

13 Q. And then discuss their former study, very
14 few subjects were exposed to glyphosate, but a
15 nonsignificant odds ratio of 2.3 was found.

16 Do you see that?

17 A. I do see that.

18 Q. We actually went over that study earlier
19 today?

20 A. Yes, we did.

21 Q. And then it goes to say furthermore, a
22 metaanalysis combining that study with an investigation
23 on hairy cell leukemia, a rare NHL variant, showed an
24 odds ratio for glyphosate of 3.04, and it lists the

1 confidence interval.

2 Do you see that?

3 A. I do see that.

4 Q. Recent findings from other groups also
5 associate glyphosate with different B cell malignancies
6 such as lymphomas and myeloma.

7 Do you see that?

8 A. I do see that.

9 Q. So that's what the authors essentially
10 conclude regarding glyphosate in the study?

11 A. Well, on the -- that's -- those are words
12 that they-- those statements come out of the end of
13 their paper, but they're really -- it's the discussion.
14 They're not really saying -- what they're doing is just
15 describing what else has been reported in the
16 literature.

17 So they're saying we acknowledge that U.S.
18 EPA and the World Health Organization concluded
19 glyphosate is not mutagenic or genotoxic or
20 carcinogenic, and then they walk through the literature
21 and talk about other studies in there and talk about
22 their own findings as well.

23 Q. Sure. And in fact, in the first sentence,
24 though, is reporting on this study. Glyphosate was

1 associated with a statistically significant increased
2 odds ratio for lymphoma in our study, and the result
3 was strengthened by a tendency to dose-response effect
4 as shown in Table 2.

5 That was their conclusion about their
6 study.

7 MR. BRENZA: Asked and answered.

8 A. It's how they're discussing it. It's in a
9 discussion section, rather than a full conclu -- some
10 journal articles say conclusion, some say discussions.
11 This one says discussion.

12 Q. (By Mr. Wisner) And I know you probably
13 want to talk about the fact that when you do the
14 multivariate analysis, which adjusts for other
15 pesticides, the odds ratio is reduced; right?

16 A. That is a major point with this study,
17 yes.

18 Q. But the authors actually discussed this.
19 They say glyphosate has succeeded MCPA as one of the
20 most used herbicides in agriculture, and many
21 individuals that used MCPA earlier are now exposed to
22 glyphosate. This probably explains why the
23 multivariate analysis does not show any significant
24 odds ratios for these compounds.

1 Do you see that?

2 A. I do see that statement. I don't see any
3 reason -- their basis for concluding that MCPA and
4 glyphosate have identical effects, MCPA being another
5 herbicide.

6 And why the effects of MCPA -- it seems
7 like what they're saying to me, MCPA and glyphosate
8 have just been exchanged in the marketplace and they
9 have the same effects on people. I don't see any basis
10 for that conclusion.

11 Q. Well, that's what they said; right?

12 A. Those are the words they used.

13 Q. After the Eriksson study in -- this was in
14 2008 -- did Monsanto -- did that raise any concerns
15 that there might be a problem between Roundup and
16 non-Hodgkin's lymphoma?

17 A. No, there's two reasons. One is, when you
18 look at the results here for glyphosate and when they
19 do their Table 2 exposure to various herbicides, less
20 than 10 days, greater than 10 days, very small numbers
21 here. We're talking 21 people in each group.

22 They -- this -- it's also important to
23 understand that this study came after the first
24 agricultural health study, so that's a cohort study

1 looking at very large numbers of people. And that
2 study was saying -- it's conducted by De Roos, or
3 analyzed by De Roos. And that study is telling us
4 there is no relationship.

5 So this one is actually coming after the
6 fact -- it's coming after all that other information,
7 small sample size. Depending on how they do their
8 analysis, they're getting different answers, and we
9 already know from a very large cohort study that there
10 was no association.

11 So no, it did not tell us here is some
12 more -- here is some reliable data that we need --
13 that's telling us we need to conduct an epidemiological
14 investigation.

15 Q. So we have Eriksson -- I always spell his
16 name wrong. I wrote that on the thing. Do you see
17 that?

18 A. Eriksson? Yes, I do.

19 Q. Following the publication of this study,
20 isn't it true that Monsanto then took it upon itself to
21 actually combat the study?

22 A. Is there a particular document or
23 documents discussing --

24 Q. Do you have any knowledge about that?

1 MR. BRENZA: Beyond the scope. Vague.

2 A. I'd like to understand what you mean by
3 combat. If there's a document you have, I'd be happy
4 to review it.

5 Q. (By Mr. Wisner) Okay. Handing you
6 Exhibit 19.

7 [Exhibit 19 marked for identification.]

8 Q. Let me know when you're ready to discuss
9 it, sir.

10 A. All right. Thank you. All right. Thank
11 you.

12 Q. So this is an e-mail exchange. It's
13 Exhibit 19. This is an e-mail -- series of e-mail
14 exchanges involving Dr. Farmer and other Monsanto
15 employees; correct?

16 A. That's correct.

17 Q. And if you look at the subject line, study
18 shows herbicides increase risk of non-Hodgkin's
19 lymphoma beyond pesticides, October 14th.

20 Do you see that?

21 A. I do see that.

22 Q. And as you go back and look at the actual
23 origination of this e-mail, you see that it's actually
24 talking about this exact study, the Eriksson 2008

1 study?

2 A. That's correct.

3 Q. So there's a newspaper article about it.
4 It's from Beyond Pesticides in 2008, and it said
5 exposure to glyphosate or MCPA can more than double
6 one's risk of developing non-Hodgkin lymphoma according
7 to the new epidemiological study published in October
8 issue of the International Journal of Cancer.

9 Do you see that?

10 A. I do see that.

11 Q. And if you look at the last sort of
12 paragraph on here, the sort of last thing that's said
13 on the -- in this -- I guess some sort of press release
14 of some sort, is avoid carcinogenic herbicides and
15 foods by supporting organic agriculture and on lawns by
16 using nontoxic land care strategies that rely on soil
17 health, not toxic herbicides.

18 Do you see that?

19 A. I do see that.

20 Q. So then Dr. Farmer responds to this e-mail
21 that's been sent to her; right?

22 A. Yes.

23 Q. And she says -- and just to be clear, Dr.
24 Farmer is responding to this e-mail in the course of

1 her business; right?

2 A. Yes, she is.

3 Q. And she says thank you for forwarding
4 this. We have been aware of this paper for a while and
5 knew it would only be a matter of time before the
6 activists pick it up. I have some epi experts
7 reviewing it. As soon as I have that review we will
8 pull together a backgrounder to use in response. Here
9 is their bottom line, how do we combat this?

10 Do you see that?

11 A. I do see that.

12 Q. And then she actually pastes that sentence
13 that we read at the very end of the article. Do you
14 see that?

15 A. I do see that.

16 Q. So Dr. Farmer is saying how do we combat
17 this, and this is avoiding carcinogenic herbicides in
18 food by supporting organic agriculture and on lawns by
19 using nontoxic land care strategies that rely on soil
20 health and not toxic herbicides.

21 Do you see that?

22 A. I do see that.

23 Q. Do you -- as someone who speaks for
24 Monsanto, is this something that Monsanto wishes to

1 combat?

2 MR. BRENZA: Beyond the scope.

3 A. Could you help me under -- there's a
4 problem I'm having here. Here is their bottom line, is
5 the statement. I'm not sure who there is -- here is
6 their bottom line, period, period, period, how do we
7 combat this, question mark.

8 She's not saying here is our bottom line,
9 so I'm not really sure what this is referring to. I'm
10 having a hard time understanding whether this is -- it
11 doesn't appear to be our bottom line. Donna is saying
12 their bottom line.

13 Q. (By Mr. Wisner) Yeah, and she's
14 combatting it.

15 MR. BRENZA: Beyond the scope. Calls for
16 speculation.

17 A. Yeah, I don't believe I can answer for
18 Donna on this one. I can't be inside her head to
19 explain what it is she meant by these words.

20 Q. (By Mr. Wisner) Well, sir, it's just
21 basic English grammar; right? It says right here, here
22 is their bottom line, how do we combat this, and then
23 below that is their bottom line.

24 Do you see that?

1 MR. BRENZA: Asked and answered.

2 A. Again, the way this is written, I can't
3 speak to what Donna meant by that.

4 Q. (By Mr. Wisner) I'm not asking you what
5 she meant by it. I'm asking you what it says right
6 here on this paper.

7 A. I see those words.

8 Q. So my question to you, sir, as a
9 representative from Monsanto, is do you think it's
10 appropriate for Dr. Donna Farmer to be discussing how
11 they're going to combat this sentence -- avoiding
12 carcinogenic herbicides in foods by supporting
13 organic agriculture and on lawns by using nontoxic land
14 care strategies that rely on soil health, not toxic
15 herbicides?

16 MR. BRENZA: Asked and answered. Beyond
17 the scope.

18 A. Again, I can't speak for Donna, for Dr.
19 Farmer, on this question.

20 Q. (By Mr. Wisner) I know. I'm asking you
21 to speak for Monsanto. Is this appropriate, sir?

22 MR. BRENZA: Same objections. Asked and
23 answered.

24 A. These are Donna's statements, and I

1 believe they're most appropriately addressed to her.
2 We cannot speak for what our employees -- what their
3 position is in an e-mail written like this.

4 Q. (By Mr. Wisner) So then to be clear,
5 Monsanto doesn't have an official position about
6 whether or not this is wrong or not?

7 A. Whether what is wrong?

8 Q. What she's saying here.

9 MR. BRENZA: Beyond the scope. Asked and
10 answered.

11 A. Yes. Again, I would have to say this is
12 not something the company -- we don't know what exactly
13 Donna is saying here, just in terms of what was in her
14 mind and what she exactly meant, so I can't speak on
15 her behalf.

16 Q. (By Mr. Wisner) I'm not asking you to
17 speak for her. I'm asking you to speak for the person
18 you're testifying for today. That's the Monsanto
19 corporation.

20 And my question to you is on behalf of
21 Monsanto -- and if you can't answer this, that's fine.
22 But on behalf of Monsanto, seeing what she's saying
23 here, do you find this to be inappropriate or not.

24 MR. BRENZA: Beyond the scope. Asked and

1 answered.

2 A. Again, these are Donna's words. I can't
3 try to get inside of Donna's head and decipher what she
4 really meant by this, so I can't really speak to that.

5 Q. (By Mr. Wisner) Well, let me just ask you
6 straightforwardly. This sentence right here --

7 A. The very bottom one?

8 Q. Yeah. The one that we've been talking
9 about.

10 A. I see that on the bottom.

11 Q. Do you believe that sentence should be
12 combatted? And by you, I mean Monsanto.

13 MR. BRENZA: Asked and answered. Beyond
14 the scope.

15 A. Yeah, again, this is referring to Donna's
16 statements. This is Donna's words. This is how she
17 put this together.

18 Q. (By Mr. Wisner) Sir, you didn't hear my
19 question --

20 A. She'd be the authority on what this meant.

21 Q. Sure. I'm not asking you to interpret
22 what this means. I'm asking you to speak for Monsanto.
23 And I'll ask you this question, and I've given it to
24 you straight now, and if you can't answer it, that's

1 fine.

2 But Monsanto's position -- does Monsanto
3 believe it should combat that sentence.

4 MR. BRENZA: Asked and answered. Beyond
5 the scope.

6 A. Yeah, I've answered this already.

7 Q. (By Mr. Wisner) No, you haven't.

8 A. These are Donna's words, the way she put
9 it together. The choice of the combat is hers.

10 Q. Sir, I'm not asking you to interpret what
11 Donna said. I'm asking you to speak for Monsanto. And
12 if you can't answer the question, then we're going to
13 need to get a witness who can. So the question for you
14 is very straightforward. You've been put up to speak
15 for Monsanto. Okay?

16 And so my question for you is, this
17 sentence, avoid carcinogenic herbicides in foods by
18 supporting organic agriculture and on lawns by using
19 nontoxic land care strategies that rely on soil health,
20 not toxic herbicides -- does Monsanto believe that is a
21 sentence that should be combatted.

22 MR. BRENZA: Beyond the scope. Asked and
23 answered.

24 A. Yeah. Monsanto's position -- we don't

1 have an official position on the exact phrasing of this
2 statement.

3 Q. (By Mr. Wisner) So all we can go on is
4 what Dr. Farmer says here?

5 A. We'd have to go on Donna Farmer's own
6 words. She can explain that.

7 Q. She used the word combat; right?

8 A. That is a word that appears in her e-mail.

9 Q. So you mentioned this earlier. We were
10 going through the epidemiological study. I'm looking
11 at Exhibit 2 again. We've gone through Hardell's,
12 McDuffee, De Roos, Eriksson. And you mentioned that
13 between De Roos and Eriksson there was a study
14 published by the AHS; correct?

15 A. That's correct.

16 Q. That was the original publication of 2005?

17 A. Yes, that's right.

18 Q. So I'm going to write AHS 2005. Okay?

19 A. Yeah. Well, it's De Roos who's the
20 author.

21 Q. Okay, fair enough. Fair enough. There
22 was a De Roos -- there was also an AHS publication in
23 2018; correct?

24 A. Yes. And that was Andreotti, et al. So

1 it would be De Roos --

2 Q. It's funny because previously in
3 litigation, I kept calling it Andreotti and you guys
4 kept calling it AHS, and I said fine, I'll just start
5 calling it AHS. But now you want me to go backwards.

6 A. I'm simply just saying the pattern you're
7 using here is the author's last name and the date. So
8 for consistency I -- De Roos --

9 Q. All right, we'll just put in there De
10 Roos. That work?

11 A. Yeah.

12 Q. And then we had an AHS?

13 A. And that was Andreotti.

14 Q. How do you spell it? Andreotti.

15 A. A-N-D --

16 Q. There we go.

17 A. There you go.

18 Q. Oh, crap. 2018; right?

19 A. 2017 is when it first appeared.

20 Q. Yeah, but it was officially published in
21 the journal 2018.

22 A. Yeah, the publication date is --

23 Q. It was like in December or something.

24 A. Yeah, the printing date.

1 Q. Yeah. Okay. So -- and I think all of
2 these, we're using the printing date, so let's just
3 stick with that for now.

4 A. Okay.

5 Q. So we have the AHS. And I want to talk to
6 you a little bit about the AHS. And I understand it's
7 Monsanto's position -- correct me if I'm wrong -- that
8 you guys believe the AHS is the most reliable and best
9 of the epidemiological studies?

10 A. Our position is that the agricultural
11 health study with -- as envisioned -- as described at
12 the case control studies that they've done -- or I'm
13 sorry, as the cohort study -- provides the most
14 comprehensive look at pesticide exposure and health
15 risk, particularly with respect to glyphosate and
16 cancer.

17 Q. Do you believe there's any problems with
18 the study?

19 A. With the agricultural health study? Is
20 there a particular part of it? This is a very -- so
21 it's a very large study that looks at a lot of
22 different endpoints.

23 Q. I understand. And having reviewed those
24 studies, I'm asking you does Monsanto have any

1 criticisms of it?

2 A. So Monsanto --

3 MR. BRENZA: Vague. Vague. Beyond the
4 scope.

5 A. I'm sorry.

6 MR. BRENZA: Go ahead.

7 A. Monsanto has not taken a position on all
8 aspects of the agricultural health studies, so there
9 are aspects of it that Monsanto has not reviewed or
10 considered. There are parts relevant to our products
11 that we have considered and reviewed.

12 Q. (By Mr. Wisner) Well, fair enough. I'm
13 not talking about the overall AHS study. I'm talking
14 about these two publications right here in front of us
15 that relate to glyphosate; right?

16 A. That is correct.

17 Q. And so my question is, does Monsanto right
18 now have any criticisms of the AHS's analysis of
19 Roundup?

20 MR. BRENZA: Vague. Asked and answered.

21 A. Could you help me understand your question
22 a little more? Just in terms of --

23 Q. (By Mr. Wisner) What don't you understand
24 about my question?

1 A. Well, is there a document that you're
2 talking about, or is it just in general speaking at a
3 very high level about these two studies?

4 Q. Listen, you're here to speak for Monsanto
5 about its views and positions regarding epidemiology;
6 right?

7 A. Yes, I am.

8 Q. And I'm talking about two epidemiology
9 studies, and I'm just asking you straightforward, do
10 you think there are anything wrong with those studies?

11 A. We believe that both of those studies are
12 of high quality and do provide valuable information.

13 Q. So there's no criticisms that you can
14 think of offhand?

15 MR. BRENZA: Vague.

16 A. We would have to go through the study
17 line-by-line to understand that.

18 Q. (By Mr. Wisner) So offhand, right now
19 when I ask you, you don't have any criticisms you can
20 think of?

21 A. Just speaking at a high level, we believe
22 those are high-quality studies and provide valuable
23 information.

24 Q. Now, it's true that numerous Monsanto

1 employees have made comments about the AHS before the
2 results were learned about; correct?

3 A. That is true.

4 Q. And those comments about the AHS were not
5 particularly flattering, were they?

6 A. Do you have --

7 MR. BRENZA: Vague.

8 A. Sorry. Is there a document that you'd
9 like to discuss?

10 Q. (By Mr. Wisner) Sure, we can go through
11 them. I'll hand you Exhibit 20 to your deposition.

12 [Exhibit 20 marked for identification.]

13 Q. Let me know when you're ready to talk
14 about it.

15 A. All right.

16 Q. So this is a document. It's dated July
17 22nd, 1997; right?

18 A. That is correct.

19 Q. And this is obviously before Monsanto knew
20 of any of the results of the agricultural health study
21 as it relates to Roundup?

22 A. That is correct.

23 Q. And this was a document prepared by John
24 Acquavella?

1 A. Yes.

2 Q. And he had at this time was an
3 epidemiologist employed by Monsanto?

4 A. That is correct.

5 Q. And just by curiosity, does Monsanto
6 currently employ any epidemiologists?

7 A. Not to my knowledge, no.

8 Q. After Dr. Acquavella left, do you know if
9 they ever hired an epidemiologist as an employee?

10 A. Not to my knowledge.

11 Q. So this is July 22nd, 1997, and he
12 prepares this document to the communications
13 subcommittee. Do you see that?

14 A. That is correct.

15 Q. And he's presenting this document to an
16 industry association; correct?

17 A. Let me make sure I understand. It doesn't
18 actually say. It says communications subcommittee, and
19 I don't see the name of an industry association here.

20 Q. You had a chance to review Dr. Goldstein's
21 deposition as a 30(b)(6) witness?

22 A. I did.

23 Q. In there we actually showed him this
24 document, and he clarified that the subcommittee was

1 basically the earlier version of CropLife America.

2 Would that make sense to you? Do you have any reason
3 to dispute that?

4 MR. BRENZA: Beyond the scope. Calls for
5 speculation.

6 A. Yeah, I can't speculate about the accuracy
7 of Dr. Goldstein's statement. I'm just saying, looking
8 at this document, it does not contain identifying
9 information about what is this communications
10 subcommittee.

11 Q. (By Mr. Wisner) Well, this was a document
12 produced to us by your company in this litigation, and
13 you agree that Dr. Acquavella is discussing the AHS in
14 this document?

15 A. Yes.

16 Q. And he was doing this in the context of
17 his work as an epidemiologist for Monsanto?

18 A. That is correct.

19 Q. So if we go into it, he kind of gives --
20 discusses sort of the origins of the AHS; right?

21 A. Yes, he does.

22 Q. And then he says the limitations -- the
23 limitations of the AHS can be illustrated by comparison
24 with the hypothetical ideal study.

1 Do you see that?

2 A. The ideal study?

3 Q. The bottom of that page under the ideal
4 study.

5 A. Oh, I do see that.

6 Q. Do you see that?

7 A. I do see that. Yes.

8 Q. And he lists a bunch of characteristics of
9 an ideal study. Do you see that?

10 A. I do see that.

11 Q. And then he proceeds to then kind of go
12 through those topics; right?

13 A. I do see that.

14 Q. And I just want to point out a couple of
15 things that I thought were pretty interesting. Let's
16 go to the exposure assessment.

17 Do you see that?

18 A. I do see that.

19 Q. And you understand that one of the big
20 criticisms that our -- the plaintiff's experts have
21 raised with the AHS is specifically about exposure
22 misclassification.

23 Do you know that?

24 A. I do -- yes, I have heard that.

1 Q. Well, let's see what Dr. Acquavella has to
2 say. He says under exposure assessment, the exposure
3 assessment in the AHS will be inaccurate.

4 You see that?

5 A. I do see that.

6 Q. He doesn't say could be; right?

7 A. I understand -- seeing the words on the
8 page.

9 Q. He says will be inaccurate; right?

10 A. He used those words.

11 Q. And that's what he said about the AHS
12 before he ever knew the results related to glyphosate,
13 or Roundup?

14 A. That's correct.

15 Q. And the next sentence reads inaccurate
16 exposure -- sorry, the next paragraph -- inaccurate
17 exposure classification can produce spurious results.
18 The conventional thinking in epidemiology is that
19 exposure misclassification will most often obscure
20 exposure disease relationships.

21 Do you see that?

22 A. I do see that.

23 Q. And so what he's saying here is in
24 traditional thinking, when you have

1 misclassification -- or exposure misclassification --
2 sorry -- what he's saying is when you have inaccurate
3 exposure classification, it can produce bad results,
4 and the conventional thinking is that it will actually
5 hide disease relationships?

6 MR. BRENZA: Mischaracterizes the
7 document.

8 A. It's the statements right after that that
9 are really the key to what he's saying. He's talking
10 about more recent thinking has begun to recognize that
11 it can also create spurious exposure disease
12 associations. In a study of this size, there will be
13 some, perhaps many, spurious exposure disease findings
14 due to exposure misclassifications.

15 What he's saying is -- some people think
16 exposure misclassification leads to associations not
17 being seen. He's saying that there's more recent
18 thinking saying actually what it does is create false
19 positives, it creates false associations that aren't
20 there.

21 Q. (By Mr. Wisner) Exactly. But he's saying
22 the conventional thinking is that when you have
23 misclassification, it generally conceals relationships?
24 That's what he's saying?

1 MR. BRENZA: Asked and answered.

2 A. And again, he's saying more recent
3 thinking --

4 Q. (By Mr. Wisner) Sure.

5 A. -- has begun to say that it's -- the
6 concern is false positives rather than false negatives.

7 Q. And you would agree with me that that more
8 recent thinking has never taken hold in epidemiology?

9 MR. BRENZA: Beyond the scope. Calls for
10 speculation.

11 A. I am not here to speak as an expert
12 epidemiologist for Monsanto.

13 Q. (By Mr. Wisner) I'm going to hand you
14 another document. This is a document that I'm labeling
15 Exhibit 21 to your deposition.

16 [Exhibit 21 marked for identification.]

17 MR. WISNER: Was that 20?

18 MR. BRENZA: Yes.

19 MR. WISNER: Thank you.

20 Q. (By Mr. Wisner) Let me know when you're
21 ready to talk about it, sir.

22 A. All right. Thank you. All right.

23 Q. All right. You ready to talk about it?

24 A. Yes, I am.

1 Q. So Exhibit 21 is a series of e-mail
2 exchanges; correct?

3 A. That's correct.

4 Q. And they are e-mail exchanges primarily
5 related to correspondence within Monsanto's employees?

6 A. Yes, that is correct.

7 Q. Specifically Dr. Farmer and a Thomas
8 Klevorn?

9 A. That's correct.

10 Q. And this document was created in the
11 regular course of business; correct?

12 A. That is correct.

13 Q. Good. All right. So I -- there's a
14 discussion earlier in the e-mail about Hardell and
15 other things, and I really want to focus on the e-mail
16 from Dr. Farmer on the first page.

17 A. Okay.

18 Q. This is dated May 31st, 1999. Do you see
19 that?

20 A. I do see that.

21 Q. And that is from Dr. Farmer?

22 A. That is from Dr. Farmer.

23 Q. And this is well before any results
24 related to the AHS and Roundup have been published?

1 A. That is -- let me make sure here.

2 Q. Well, 1999.

3 A. Yes. I understand.

4 Q. She goes, Tom, you're welcome. Life is
5 always busy, work/home/work/home, the key is the
6 balance.

7 Regarding business, unfortunately we feel
8 that Hardell is just the tip of the iceberg for these
9 type of association epi studies. We have his two
10 papers with NHL and hairy cell leukemia and one from a
11 Canadian Ag Health study that declares an association
12 between glyphosate and miscarriages and preterm
13 deliveries.

14 What is of greater concern, however, is an
15 American initiative called the AHS.

16 Did I read that right?

17 A. Yes, you did.

18 Q. And she goes on to kind of describe the
19 AHS. Do you see that?

20 A. I do see that.

21 Q. And if you look at sort of the last
22 sentence in that paragraph, she says these
23 organizations believe that farmers and their families
24 are suffering from a variety of illnesses and that

1 these illnesses are caused by pesticides. No bias
2 there.

3 Do you see that?

4 A. I do see that.

5 Q. She goes on. The widespread and
6 ever-growing use of glyphosate caused the AHS
7 investigators to reevaluate and give more priority to
8 glyphosate.

9 Do you see that?

10 A. I do see that.

11 Q. So so far she's been discussing potential
12 biases that she believes may exist with the AHS?

13 A. Is that a question?

14 Q. Correct?

15 A. Yes. Yes. That appears to be what she's
16 saying here, that she's just describing what she knows
17 factually about the AHS and expressing concern over
18 bias.

19 Q. And then she describes some more of the
20 study. And then she just has this paragraph.

21 She reads many groups have been highly
22 critical of the study as being a flawed study. In
23 fact, some have gone so far as to call it junk science.
24 It is small in scope, and the retrospective

1 questionnaire on pesticide usage and self-reported
2 diagnoses also from the questionnaire is thought to be
3 unreliable.

4 But the bottom line is scary. There will
5 be associations identified between glyphosate use and
6 some health effects just because of the way the study
7 is designed.

8 Do you see that?

9 A. I do see that.

10 Q. So she feels in discussing the AHS to this
11 employee at Monsanto, Thomas Klevorn, she decides to
12 relay to him that people are highly critical of the
13 study and have even called it junk science?

14 MR. BRENZA: Beyond the scope. Calls for
15 speculation.

16 A. I don't really know what the basis is.
17 She says some -- or many groups have been highly
18 critical. I don't know what groups she's referring to.
19 She doesn't provide detail here to understand what the
20 basis for this statement is.

21 Q. (By Mr. Wisner) She says the bottom line
22 is scary, doesn't she?

23 A. Those are -- those are five words she
24 includes here, yes.

1 Q. She also characterizes the exposure
2 classification in AHS as being unreliable; correct?

3 MR. BRENZA: Vague. Incomplete. Beyond
4 the scope.

5 A. She describes -- she uses the words, is
6 thought to be unreliable, but she doesn't clarify who's
7 saying that. I think that's the challenge with this
8 paragraph. And --

9 Q. (By Mr. Wisner) I mean, she kind of
10 endorses that view in this e-mail. I mean, she says
11 she finds it scary, and she's talking about other
12 people calling it junk science; right?

13 MR. BRENZA: Beyond the scope. Calls for
14 speculation.

15 A. I can't really speak to where Donna was --
16 what she was trying to say here. This is -- she
17 appears to be relating statements from other people.

18 Q. (By Mr. Wisner) Well, to the best of your
19 knowledge, during the course of this litigation or
20 prior to that, do you know if Monsanto has ever
21 publicly told the world that many groups have been
22 critical of the AHS and have even called it junk
23 science?

24 A. I know -- so I know we've had -- Monsanto

1 scientists had conversations with agricultural health
2 study scientists just to share some of the concerns,
3 typically through trade associations.

4 Q. Great. Let's talk about that. I'm
5 handing you Exhibit 22.

6 [Exhibit 22 marked for identification.]

7 Q. And this is in fact a publication related
8 specifically to the conversations between trade
9 associations and the AHS investigators; correct?

10 And take a chance to review it to answer
11 my question.

12 A. And I'm sorry, what was your -- how did
13 you describe this?

14 Q. Why don't you just take a look at it and
15 let me know when you're ready.

16 A. Okay. All right. All right.

17 Q. So Exhibit 22 is a journal article;
18 correct?

19 A. It appears to be so, yes.

20 Q. And you were specifically a second ago
21 discussing that there was interactions between trade
22 associations and the AHS investigators; correct?

23 A. That's correct. We -- at scientific
24 meetings.

1 Q. And it culminated in the publication of
2 this document, didn't it?

3 A. So that's what I wanted --

4 MR. BRENZA: Beyond the scope.

5 A. I don't see where it indicates industry
6 involvement.

7 Q. (By Mr. Wisner) We'll see the last page.
8 Do you see the section that says acknowledgments?

9 A. Yes, I do.

10 Q. Have you had a chance to review it?

11 A. Yes. I answered. I said yes, I do. I
12 saw it. Yes.

13 Q. So you see that this, in fact -- this
14 publication was prepared as part of the interactions
15 between various industry associations and the AHS
16 advisory panel?

17 MR. BRENZA: Asked and answered.

18 A. That -- so they list a collaborative --
19 I'm sorry, what is the exact word they used?
20 Cooperative relationship between the Harvard Center For
21 Risk Analysis, the American Crop Protection
22 Association, and the agricultural health study.

23 Q. (By Mr. Wisner) So I'm not sure if we're
24 just nitpicking here, but I asked you a pretty

1 straightforward question. This is the document that
2 culminated in this discussion we talked about; right?

3 A. It may have. It looks like what they're
4 doing here is working with the scientists from the
5 agricultural health study to share thoughts about its
6 design and conduct.

7 Q. Do you know about this document?

8 A. I've seen it before, yes.

9 Q. You've studied it; right?

10 A. Yes, I have.

11 Q. It was part of your 400 hours of
12 preparation; right?

13 A. Yes, it was.

14 Q. So I assume then you can tell me if I'm
15 properly describing this document or not. Am I?

16 A. Yeah, I'm just trying to make sure,
17 because what they're doing is they're running through a
18 long list of organizations --

19 Q. Sure.

20 A. -- all of whom worked on -- played some
21 role in preparing this document.

22 Q. And they specifically give acknowledgments
23 to various scientists, including Dr. Acquavella; right?

24 A. Yeah, they mentioned a whole series of

1 people, including Aaron Blair, who is a scientist as
2 part -- who was one of the researchers on the
3 agricultural health study.

4 Q. That's right. And --

5 A. Then several others as well.

6 Q. Yeah. So it has Aaron Blair in there, it
7 has John Acquavella; right?

8 A. Yes, it does. Wait, John -- I'm sorry.
9 Can we hold on a second? Where is John Acquavella? I
10 saw Michael Alavanja.

11 Q. Keep going. You'll see it.

12 A. Oh, John Acquavella is at the bottom.
13 There we go.

14 Q. You got it?

15 A. I do see that.

16 Q. So -- anyway, so this is a publication
17 that was published in 2000; right?

18 A. Yes.

19 Q. And it's specifically titled a critical
20 review with suggested improvements; right?

21 A. Critical review -- oh, yes. The second
22 half of the title, yes.

23 Q. Sure, I'm sorry. The full title is the
24 federal government's agricultural health study, a

1 critical review with suggested improvements; right?

2 A. That's correct.

3 Q. And then there's discussions of various
4 issues that it raises. Is that -- I want to turn to
5 Page 59. And it actually -- the section starts on Page
6 56 under pesticide exposure, but it goes on -- I want
7 to talk about what's on Page 59.

8 Do you see that?

9 A. I see Page 59, yes. It's the --

10 Q. It says in general -- the last paragraph
11 in the section -- in general, a major limitation of the
12 current design of the AHS study is that so few direct
13 measurements of human exposure to chemicals will be
14 available.

15 Do you see that?

16 A. I do see that.

17 Q. So they're also raising concerns about the
18 pesticide exposure classification; correct?

19 MR. BRENZA: Beyond the scope. Calls for
20 speculation.

21 A. They have the words on the page here
22 describing the author's thoughts.

23 Q. (By Mr. Wisner) That's all I had to ask
24 you about that document.

1 So now we have -- back to our chart here,
2 we've discussed Hardell, McDuffee, De Roos, Eriksson.
3 And it's your opinion that none of those studies show
4 any particular risk with Roundup and non-Hodgkin's
5 lymphoma.

6 A. What they're showing -- when you look
7 across the board, what they showing you is that we
8 don't have some kind of reliable information, a
9 reliable study that's telling us, yes, there is another
10 question to be asked here.

11 What we're seeing is a lot of studies, as
12 I mentioned, that are small in scope or somehow
13 confounded, and when you adjust for the confounding
14 factors, in the final analysis, that relationship tends
15 to go away and become nonsignificant.

16 Q. But to be clear, it's your opinion,
17 notwithstanding all those studies, that there is no
18 evidence across the board; right?

19 A. That is correct.

20 Q. And --

21 A. I'm sorry, I wasn't -- I had one more part
22 of that. Just that we don't believe that any of that
23 is reliable evidence that's telling us more needs to be
24 done.

1 Q. But you do believe the AHS is reliable?

2 A. We do believe the AHS is reliable. We
3 also believe that when you look at these studies as a
4 whole, what they're showing you is there is no
5 relationship.

6 The conclusion that these studies are
7 saying there's a relationship is not reliable. When
8 you look at the data itself, it tells a very different
9 story.

10 Q. So here's my question. We showed you some
11 documents of Dr. Acquavella and Dr. Farmer discussing
12 the AHS. And I'll just draw your attention back to the
13 Dr. Acquavella, because I think that's particularly on
14 point, this one from 1997. It's -- I believe it's
15 Exhibit 20.

16 Do you recall this document?

17 A. Yes.

18 Q. And if I'm not mistaken, I think you've
19 testified that the only epidemiologist you ever know to
20 ever have been employed by Monsanto, that you know of,
21 obviously, is Dr. Acquavella?

22 A. That's correct.

23 Q. And this only epidemiologist, before you
24 guys know the results of the AHS, he says in no

1 uncertain terms that the assessment -- the exposure
2 assessment in the AHS will be inaccurate; right?

3 A. That was his concern in 1999. The -- but
4 I --

5 Q. And I -- it's actually 1997, sir.

6 A. Oh, I'm sorry. And I wasn't finished
7 answering.

8 This actually is part of a bigger
9 conversation that's going on. So we have here this
10 study by Gray that we just talked about. It's
11 important to note there, the last statement in that
12 acknowledgment, that it's the author's own opinions.
13 These are mostly academic university scientists.

14 It's not the American Crop Protection
15 Association saying this. These are independent experts
16 sharing their thoughts. Dr. Acquavella is sharing his
17 thoughts. The agricultural health study researchers
18 did respond to these sorts of criticisms.

19 They changed the way they looked at the
20 exposure. They made sure they did -- updated protocol
21 for doing the questionnaire. They published data
22 showing, when we do a question -- when we ask people
23 questions here and ask people questions there, do we
24 get a different answer?

1 They responded to many of these
2 criticisms because they wanted to make sure they had a
3 robust study. These same criticisms apply even more so
4 to many of the case control studies, where bias and
5 confounding pretty much preclude being able to draw a
6 reliable answer.

7 Q. Sir, I asked you about what Dr. Acquavella
8 said, and you gave me a very long answer. You even
9 brought in the other studies that you're now saying are
10 also unreliable. Okay.

11 But let's actually see what's in black and
12 white. Because the thing about documents, right, is
13 they say what they say. And your own epidemiologist,
14 the only one you've ever known to have worked at
15 Monsanto, he doesn't mince words.

16 He says the exposure assessment in the AHS
17 will be inaccurate. The exposure assessment will be
18 based on historical usage as reported by the farmer or
19 applicator on the study questionnaires.

20 Do you see that?

21 A. I do see that.

22 Q. That didn't change.

23 MR. BRENZA: Compound. Asked and
24 answered.

1 A. That was not a question. Do you have a
2 question?

3 Q. (By Mr. Wisner) In AHS, they didn't stop
4 taking exposure from questionnaires. That was from
5 the -- they never changed that; correct?

6 MR. BRENZA: Asked and answered.

7 A. They collect information from
8 questionnaires, but they updated the protocol for
9 collecting that information. They also published
10 peer-reviewed articles showing it was reliable.

11 Q. (By Mr. Wisner) I'm sorry. He says right
12 here exposure assessment in the AHS will be inaccurate.
13 Exposure assessment will be based on historical usage
14 as reported by the farmer or applicator on the study
15 questionnaires.

16 That's what he says; right.

17 A. So those are the words on the page.

18 Q. And the collection of pesticide exposure,
19 using study questionnaires, that never changed in the
20 AHS; correct?

21 MR. BRENZA: Asked and answered.

22 A. The way -- the usage of questionnaires did
23 not change, but the use of questionnaires did, how they
24 were using it, the protocol for using it. Dr.

1 Acquavella is describing a situation here before the
2 second round of questionnaires went out.

3 Q. (By Mr. Wisner) Let's be honest here,
4 sir. The other big change between what Dr. Acquavella
5 said in 1997 and what you're saying on behalf of
6 Monsanto today is you learned that the results were
7 negative that supported your company's position;
8 correct?

9 MR. BRENZA: Argumentative.

10 A. That is incorrect.

11 Q. (By Mr. Wisner) We're back to causation.
12 No evidence across the board. I want to talk about
13 animal toxicology data; okay?

14 A. All right.

15 Q. And there have been five studies in mice;
16 correct?

17 A. In mice? Let me think about that for a
18 moment.

19 Q. That's actually not correct. Can I
20 rephrase the question?

21 A. Sure.

22 Q. There have been five long-term animal
23 carcinogenicity studies in mice; correct?

24 A. Correct.

1 Q. And there has been one initiation promoter
2 study in mice?

3 A. Are you -- is there a particular study
4 you're referring to? Initiation promoter --

5 Q. The George study in 2009.

6 A. I am aware of that study.

7 Q. So those are the sort of mice studies that
8 I have in mind. And then there's also seven reliable
9 rat long-term carcinogenicity studies; correct?

10 A. Yes.

11 Q. And in the rats, there's --

12 A. Wait, I'm sorry. Could we have that
13 question read back? I think there was an error there.

14 Q. Sure.

15 A. It was about the rats, please.

16 [The requested portion of the transcript.
17 was read by the reporter.]

18 A. I believe there are nine in rat.

19 Q. Really?

20 A. It's a total of 14.

21 Q. Well, yeah. So I have six in mice, if you
22 include the George study, and then I have seven, not
23 including Séralini, which would be the 14th, I think.

24 A. I think we have to go to a resource to

1 really be able to do that, because I also -- the George
2 study is a short-term study.

3 Q. So it's your understanding that there's
4 actually nine?

5 A. There's 14 total long-term studies that
6 have looked at glyphosate and its ability to cause
7 cancer in rats and mice.

8 Q. Well, okay. Let's actually be very
9 accurate. There's actually like 20 or something
10 studies, but of those, only 14 of them are -- Monsanto
11 believes are helpful.

12 MR. BRENZA: Object to form.

13 A. I would not use the word helpful. I'm
14 talking about --

15 Q. (By Mr. Wisner) Helpful meaning that you
16 can derive information from them, not that they support
17 a position. I'm just saying that -- I think all the
18 experts agree that there is a certain cohort of studies
19 that are not reliable?

20 A. I would agree there are studies that are
21 unreliable.

22 Q. That's what I'm trying to say. I'm not
23 saying helpful like as in your position; I'm just
24 saying generally get something from them.

1 And is your understanding that there's
2 nine studies in the -- in rats.

3 A. I have a -- that is my -- sitting here
4 right now, that is my recollection. We have a
5 publication that we could -- that has that final
6 number, but if you have one, we can go through them
7 all.

8 Q. No, I just was just talking about it
9 generally.

10 A. Okay.

11 Q. I was just sort of laying some groundwork.
12 If we're going to go through all those rat studies and
13 mice studies --

14 A. Right.

15 Q. -- we'd be here forever. And don't
16 worry, the jury will have heard plenty of testimony
17 from our experts and yours as well about what those
18 studies mean and whatnot.

19 A. All right.

20 Q. But I understand, to be clear, that it's
21 Monsanto's position, though, that none of those studies
22 suggest or indicate that glyphosate exposure causes the
23 promotion or creation of tumors in rodents?

24 A. That is correct.

1 Q. And just to be clear, none of those mice
2 or rodent studies, those long-term ones, looked at
3 Roundup; right?

4 A. The two-year studies, or 18-month studies,
5 that is correct.

6 Q. Now, there have been researchers who have
7 attempted to look at Roundup; correct?

8 A. Is there a particular study in mind?

9 Q. Well, there are researchers that have
10 tried to do a long-term study on rats exposed to
11 commercial formulated Roundup; correct?

12 A. I am aware of some flawed studies that
13 weren't able to reach a reliable conclusion that may
14 fit that description, but if you have one, I'd be happy
15 to look at it.

16 Q. Sure. There's also, for example, that
17 George study we mentioned. That was actually on
18 Roundup, wasn't it?

19 A. So again, if we want to talk about the
20 specifics of that study, I'd be happy to, but I'd need
21 to see a copy of it.

22 Q. And so offhand, you don't know if the
23 Roundup study -- sorry, the George study was about
24 Roundup or not?

1 A. The precise compounds that he used in that
2 study, I don't recall exactly off the top of my head,
3 but if you have a copy, I'd be happy to discuss.

4 Q. Fair enough. But for the purposes of
5 long-term sort of toxicity/carcinogenicity studies,
6 you're not aware of any one done on Roundup, the
7 formulated product, that you believe is reliable?

8 MR. BRENZA: Asked and answered.

9 A. Not one that answers questions relevant to
10 a risk assessment.

11 Q. (By Mr. Wisner) And to also be clear,
12 Monsanto, notwithstanding the lack of those studies
13 existing, has never done a study, long-term animal
14 carcinogenicity study, on a formulated Roundup;
15 correct?

16 MR. BRENZA: Vague. Vague.

17 A. Could you ask that question again?

18 Q. (By Mr. Wisner) Sure.

19 [The pending question was read.
20 by the reporter.]

21 Q. So to be clear, Monsanto has never
22 conducted a long-term animal carcinogenicity study on
23 formulated Roundup?

24 MR. BRENZA: Vague.

1 A. The -- so Roundup itself, if you're
2 referring to just the herbicides that contained
3 glyphosate and the surfactant and water, we have not
4 conducted that long-term study because we never
5 believed there was any information available that would
6 indicate such a study was necessary.

7 Q. (By Mr. Wisner) I'm talking about the
8 stuff that people are using in the real world.

9 A. That's correct. That we just discussed in
10 the epidemiology data.

11 Q. So to be clear, before I move on to the
12 next topic, so Monsanto hasn't done a long-term animal
13 carcinogenicity study on formulated Roundup. Fair
14 enough.

15 Has Monsanto done a long-term
16 carcinogenicity study on glyphosate since 1991.

17 MR. BRENZA: Vague.

18 A. We completed the studies that we needed to
19 do for EPA registration, registrations around the world
20 in 1991. Other companies since that time have done
21 additional studies, long-term.

22 Q. (By Mr. Wisner) Isn't it true that the
23 EPA specifically asked Monsanto to redo a mouse study
24 and it refused?

1 A. That is not my understanding.

2 Q. Let's move on to that topic; okay?

3 A. All right.

4 Q. So let's start from the beginning of the
5 story; okay? Now, Roundup was put on the market in the
6 early 1970s; right?

7 A. That's correct.

8 Q. And it was approved at that time based on
9 studies that Monsanto had submitted to the EPA in the
10 1970s; right?

11 A. That's correct.

12 Q. The only animal carcinogenicity study that
13 had been done at that time, though, had been conducted
14 by a laboratory called IBT; correct?

15 A. That is correct.

16 Q. And it was subsequently learned after
17 Roundup was approved by the EPA that IBT had been
18 engaged in an unethical fraudulent conduct.

19 A. Is that in the form of a question?

20 Q. I'm not going to say correct each time,
21 but I'm just giving you facts. I'm hoping you'll say
22 yes to them. So --

23 A. There is more to that story than just
24 simply -- to be clear, none of those findings related

1 to Monsanto's products.

2 Q. Wait, wait. Is it your testimony that the
3 fraudulent conduct related to IBT did not relate to
4 Monsanto's products?

5 A. What they -- what happened in that
6 situation was that IBT, there were some findings there
7 that their results could not be verified. Monsanto at
8 that point talked to EPA, and the decision was we could
9 either keep going, and let's find out where are the
10 records. There was not a lot of confidence the records
11 could be found, so we chose to repeat those studies at
12 that time.

13 Q. So let's back up just a little bit.
14 People went to jail; right?

15 A. "People went to jail." Could --
16 MR. BRENZA: Object. Vague.

17 Q. (By Mr. Wisner) Related to the IBT
18 scandal, people went to jail; correct?

19 A. My understanding is there were people.
20 Specifically how many and what the details were --

21 Q. Well, one of them was named Paul Wright;
22 right?

23 A. That is correct.

24 Q. Paul Wright, before joining IBT, was

1 actually employed by Monsanto?

2 A. That's correct.

3 Q. Subsequent, he then left Monsanto and
4 started working at IBT; correct?

5 A. That's correct.

6 Q. And it was during that time that the only
7 oncogenicity study on Roundup -- I'm sorry,
8 glyphosate -- that supported the registration in the
9 EPA in the 1970s was conducted; correct?

10 A. So I'm not aware of Paul's -- or Mr.
11 Wright's exact CV with respect to that. If you have a
12 document, I'd be happy to discuss it.

13 Q. I don't have IBT records. They've been
14 destroyed for a long time. But what I do have is that
15 after Monsanto submitted its data to the EPA, including
16 IBT data, Paul Wright left IBT; correct?

17 A. So after -- could you please repeat that?
18 I just want to make sure I understand the order of
19 events you're describing.

20 Q. Sure. Okay. So I thought I was pretty
21 clear, but maybe I'm not being clear. Paul Wright
22 works for Monsanto, leaves it, goes to IBT; correct?

23 A. That's correct.

24 Q. At that time, Monsanto submits data from

1 IBT related to the carcinogenicity of glyphosate;
2 correct?

3 A. So again, if you have a timeline that
4 shows all this, I would be happy to review it.

5 Q. Sir, you're here to talk about the IBT
6 stuff; right?

7 A. That is one of the topics, but if you have
8 documentation that lays this out and describes it, I'd
9 be happy to discuss it.

10 Q. I'm asking for Monsanto's knowledge. Do
11 you not know?

12 A. So his time at IBT and when the exact
13 things occur, I would need to see some documentation
14 for us to discuss. Do you have a document that
15 would --

16 Q. So you don't know about Paul Wright's
17 employment in and out of IBT and Monsanto?

18 A. I am aware of Paul Wright, I'm aware he
19 worked at IBT, but I would like to see if you have some
20 information showing how do these dates line up.

21 Q. I don't have documentation, because those
22 documents don't exist. That's why I'm taking this
23 deposition, so you can tell me the facts, and it sounds
24 like you can't. Is that what you're saying?

1 MR. BRENZA: This is beyond the scope of
2 the topic on IBT.

3 MR. WISNER: Excuse me?

4 MR. BRENZA: The topic is Monsanto's
5 knowledge, positions, conduct pertaining to third-party
6 analyses, studies, evaluations and/or testing of
7 glyphosate-based formulations.

8 MR. WISNER: Including, but not --

9 MR. BRENZA: It doesn't have anything to
10 do with Mr. Wright or his timeline at Monsanto or IBT.

11 MR. WISNER: So are you saying that this
12 witness will not be able to answer questions about Paul
13 Wright.

14 MR. BRENZA: I'm saying it's outside of
15 the scope of what he's been prepared to testify about.
16 And --

17 MR. WISNER: Can someone give me a
18 straight answer here? I'm like talking in circles.
19 Can this guy talk about it or not?

20 MR. BRENZA: It's outside the scope, and
21 if -- I'll let him answer if he has personal knowledge
22 about it.

23 Q. (By Mr. Wisner) Okay. So you've said you
24 already know it, so I just -- what do you know?

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

4 Q. And in fact, in response to that, the EPA
5 specifically demanded that Monsanto redo the study?

6 MR. BRENZA: Asked and answered. Beyond
7 the scope.

8 A. Yeah, previously what I talked about was
9 EPA had this across multiple products, and so what they
10 did is say, which ones can we reconstruct and have
11 confidence in, and which ones do we not have enough
12 information to know what happened.

13 This discovery of the problems at IBT, my
14 understanding, originally occurred with the FDA, and
15 then it was shared. The -- so then the EPA was then --
16 went to registrants and said here's your studies, these
17 are the ones we can or cannot reconstruct and
18 understand. Your choice is to continue waiting for
19 this process or you can just redo the study. We chose
20 to redo our studies.

21 Q. So it's called a data-call in; right?

22 A. That's correct.

23 Q. And the EPA issued a data-call in for the
24 Roundup mouse carcinogenicity -- I'm sorry, the

1 glyphosate carcinogenicity study?

2 A. That's right.

3 Q. And that was in mice?

4 A. That's right.

5 Q. And when Dr. Wright was indicted for
6 fraud, did Monsanto terminate its employment of him?

7 A. I'm unaware of how the human resources
8 interaction went at that time.

9 Q. Did Monsanto pay for his criminal
10 legal defense?

11 MR. BRENZA: Beyond the scope.

12 A. Sorry. So my personal -- I'm not here to
13 testify for the company about that. My personal
14 knowledge is that I do not know.

15 Q. (By Mr. Wisner) You would agree, though,
16 that it's a bit suspicious that a guy goes from
17 Monsanto to IBT and back to Monsanto and then gets
18 convicted of fraud for fraudulent science; right?

19 MR. BRENZA: Beyond the scope. Calls for
20 speculation.

21 A. I can't speculate about anything there.

22 Q. (By Mr. Wisner) You don't think that
23 sounds suspicious, sir?

24 MR. BRENZA: Same objections.

1 Q. Well, let's look at what the EPA said.

2 I'm handing you a document, Exhibit 26.

3 [Exhibit 26 marked for identification.]

4 Q. We're going to come back to this memo. I
5 just want to clarify this issue.

6 You've seen this document before; right.

7 A. Yes, I have.

8 Q. Do you want a second to review through it?

9 A. I'd be happy to, yes.

10 MR. WISNER: Let's go off the record.

11 THE VIDEOGRAPHER: We are going off the
12 record at 2:16 PM.

13 [A brief recess was taken.]

14 THE VIDEOGRAPHER: We are back on the
15 record at 2:37 PM.

16 Q. (By Mr. Wisner) All right, Doctor. So we
17 are looking at this document. It is a document
18 prepared by the Environmental Protection Agency;
19 correct?

20 A. That's correct.

21 Q. And it's from 1983?

22 A. That's correct.

23 Q. This is a document you've seen before?

24 A. Sorry. That's correct.

1 Q. And as you can see, the title of it is
2 summary of the IBT review program, office of pesticide
3 programs.

4 Do you see that?

5 A. Yes, I do see that.

6 Q. And the document goes through at length
7 sort of what they did and stuff that happened, but I
8 don't really want to rehash all that. I want to turn
9 your attention to Exhibit A of the document, which
10 starts -- if you look at the bottom right, there's
11 actually numbers.

12 A. Okay.

13 Q. It would be Exhibit 1-11 number.

14 A. It's at the back end of it?

15 Q. No, no at the bottom right-hand corner.
16 There should be numbers.

17 A. Oh --

18 Q. Do you have those?

19 A. To Page 8?

20 Q. You know what, you don't have them. It's
21 fine. I'm sorry.

22 A. Okay. Okay.

23 Q. My -- I'm sorry. Mine does, yours
24 doesn't.

1 A. All right.

2 Q. Hold on a second. Does that have an
3 exhibit number on it?

4 A. It says Exhibit A --

5 Q. That's right.

6 A. -- but it doesn't have anything on the
7 bottom.

8 Q. That's right. That's fine.

9 A. Okay. All right.

10 Q. Your Exhibit A. Okay, good.

11 A. Great.

12 Q. And then this is Exhibit A to -- I believe
13 we're on Exhibit -- what number is this exhibit?

14 A. 26.

15 Q. So Exhibit A to Exhibit 26, it says the
16 database for Industrial Bio-Test Chemicals.

17 Do you see that?

18 A. Yes, I do.

19 Q. And if you turn into it and you kind of
20 flip through it, you can get to the section that
21 discusses glyphosate. They're in alphabetical order,
22 so you'd have to go to the G.

23 A. Yes.

24 Q. And we have this table here, and you see

1 there's a table for glyphosate and -- see that?

2 A. Yes, I do.

3 Q. Just below that, there's something called
4 glyphosine?

5 A. Yes. I see that.

6 Q. Just for knowledge, what is glyphosine?

7 A. Glyphosine is another molecule in the same
8 class as glyphosate. It was discovered about the same
9 time by Monsanto as well.

10 Q. And if you look at the bottom right,
11 there's a zero to IBT?

12 A. Yes.

13 Q. So that means that when there's a zero,
14 that study was performed by IBT. Do you see that?

15 A. I do see that.

16 Q. And just for example, for glyphosine, it
17 looks like all of the studies related to it were done
18 by IBT?

19 A. It does appear that way, yes.

20 Q. But for glyphosate, although some studies
21 were done by IBT, some studies apparently were not?

22 A. That's correct.

23 Q. Right. And then if you look at these
24 columns, the first one is oncogenicity. Do you see

1 that?

2 A. That's correct.

3 Q. And that's what we're talking about in the
4 long-term mouse studies; right?

5 A. Yes, it's a -- well, they're not really
6 saying what it is. They're saying oncogenicity, but
7 that means a study looking at the potential to cause
8 cancer.

9 Q. Exactly. And glyphosate has one zero;
10 right?

11 A. That's correct.

12 Q. And so the one -- that's what we were
13 talking about earlier. The one carcinogenicity or
14 oncogenicity study, at least at this point, was done by
15 IBT?

16 A. That's correct.

17 Q. And then, for example, you see there's
18 mutagenicity?

19 A. Yes, in the third column. We have a study
20 there.

21 Q. And then again for glyphosate, it looks
22 like one study was done by a non-IBT lab?

23 A. Let me just make sure I understand the
24 numbering here. But it would -- I would say at a

1 minimum, it shows there are studies by IBT and studies
2 by non-IBT labs.

3 Q. Well, it says there was one study by
4 non-IBT and four by IBT; right?

5 A. There's an X and then four zeros.

6 Q. That's right. You can look at the front.
7 It will help explain.

8 A. Just want to make sure I had the --

9 Q. So the front of Exhibit A to Exhibit 26,
10 the first paragraph, it says Exhibit A quantitatively
11 presents the database of the chemical compounds for
12 which studies were conducted by Industrial Bio-Test
13 Laboratories. The studies are designated by the letter
14 zero -- or O. Studies in the EPA database done by
15 other labs other than IBT are designed by the letter X.

16 A. I do see that.

17 Q. So going back to glyphosate then, what
18 this chart is showing is that for mutagenicity, one
19 study was done by a non-IBT lab and four were done by
20 IBT?

21 A. That's correct.

22 Q. And then the regulatory activity to
23 generate chronic data column, it has for glyphosate
24 data-call in.

1 Do you see that?

2 A. That's correct.

3 Q. And that's what we were talking about
4 earlier, that Monsanto was going to redo it?

5 A. Yeah, that we agreed with EPA that we
6 wouldn't wait to try and reconstruct the files from
7 IBT, that we would just go ahead and redo the study.

8 Q. Now, I actually just want to show you
9 Exhibit B to this document. This is why we came here.
10 You earlier testified you recall -- you don't recall if
11 the study was valid or not, the IBT study?

12 A. It was -- so my understanding is that it
13 was not possible to verify the data that IBT had
14 produced, and so your choice is either to wait in line
15 with all of the other compounds to see if you can
16 validate it, or just forget it, move on, and do the
17 study.

18 Q. Are you in Exhibit B? It's just after
19 Exhibit A.

20 A. Yeah.

21 Q. Yeah?

22 A. Yes, I am.

23 Q. If you turn the first page, there's a sort
24 of key. The IBT tracking system report, code

1 definitions.

2 Do you see that?

3 A. I do see that.

4 Q. And the first one I, it says invalid;
5 right?

6 A. I do see that.

7 Q. That means the information in the final
8 report was not supported by the raw data from the
9 study; right?

10 A. I do see that.

11 Q. And then under the section evaluate -- you
12 see that?

13 A. Evaluate. Yes.

14 Q. NA, not applicable. The study was not
15 given an evaluation status if the validation process
16 determined it to be invalid.

17 Do you see that?

18 A. I do see that.

19 Q. And then under the replace header. You
20 see that?

21 A. Yes, I see that.

22 Q. Is the column indicating the replacement
23 status of the study. You see that?

24 A. I do see that, yes.

1 Q. And if it says replaced, that means study
2 replaced or in progress?

3 A. I see that.

4 Q. So if you turn the page, it actually has
5 the tracking report, and it was actually -- glyphosate
6 is in there. It's in alphabetical order by chemical,
7 the column chemical.

8 A. I see that.

9 Q. And if you could just go to the one where
10 glyphosate is listed.

11 A. Yes.

12 Q. Great. And if you look at the glyphosate
13 listing here, there's all these different studies, so
14 is Monsanto; right?

15 A. Yes.

16 Q. And then you have these different route
17 and then type of studies; right?

18 A. Yes.

19 Q. And there's one of them that says
20 carcinogenicity; right?

21 A. Oh, yes, I see that.

22 Q. Yeah. You see that? And it's in a mouse?

23 A. Yes.

24 Q. And that's our mouse study; right?

1 A. Yes, that's the one.

2 Q. And then under validate it has I; right?

3 A. Yes, that's correct.

4 Q. Which, according to the key we just said,
5 means it's an invalid study?

6 A. Yeah, it says the information in the final
7 report was not supported by the raw data from the
8 study. They don't have a -- what's unclear here is we
9 have the raw data, we look at it, we can't figure out
10 how you drew your conclusions or where did you put the
11 raw data, because that's one of the key
12 requirements for the studies that we do currently under
13 good laboratory practices, is I need to know where the
14 raw data are. I need to be able to audit them.

15 And this invalid category is basically --
16 I can't figure out -- could include everything from the
17 data don't match the study to we don't know where the
18 raw data are.

19 Q. Well, I mean, it says right here, I,
20 invalid, the information in the study report was not
21 supported by the raw data from the study. That's what
22 the I means; right?

23 MR. BRENZA: Asked and answered.

24 A. There's no way to distinguish here if

1 they're talking about simply reviewing the data didn't
2 match the study or if the raw data could not be
3 identified.

4 Q. (By Mr. Wisner) Well, at least on this
5 chart, the EPA has deemed that study to be invalid;
6 right? And it gives it, under the evaluate section,
7 not applicable, meaning the study was not given an
8 evaluation status if the validation process determined
9 it to be invalid?

10 A. That's correct. And then it says it was
11 replaced.

12 Q. Yeah, and replaced means it's either
13 replaced or in progress; right?

14 A. That's correct.

15 Q. And this is 1983, so I'm not sure of the
16 exact date, but it's either just at the very end before
17 it gets submitted or it's almost done?

18 A. It would -- yes, it would be near that
19 time, because we have a July date, but it's hard to
20 know when this was written exactly.

21 Q. So going back to the question that sort of
22 prompted all of this --

23 A. Uh-huh.

24 Q. -- is it was the study that was

1 ultimately submitted again in 1983 to Monsanto to
2 replace the IBT study -- prior to that, Roundup had
3 been being sold on the market for about eight years;
4 right?

5 A. That's correct.

6 Q. And during that time that it was being
7 sold on the market for eight years, there was no valid
8 carcinogenicity study for Roundup?

9 A. We were --

10 MR. BRENZA: Asked and answered.

11 A. We were not aware of the issues at IBT lab
12 at that time, so we and EPA and every other customer of
13 IBT labs had no way of knowing what had been going on
14 there. Once it was found out, we took action to
15 replace the study in consultation with EPA.

16 Q. (By Mr. Wisner) So you say Monsanto
17 wasn't aware, but the guy, he went to jail to it, for
18 making up the data. He worked at Monsanto, went to
19 IBT, and then came back to Monsanto; right?

20 MR. BRENZA: Assumes matters not in
21 evidence. Compound. Beyond the scope.

22 A. I have no information about what Mr.
23 Wright, or Dr. Wright, did while at IBT on Monsanto
24 products, and so I wouldn't be able to describe if he

1 had any kind of knowledge about that.

2 Q. (By Mr. Wisner) Is it your position that
3 Monsanto was a victim of IBT?

4 A. Our position is that we, along with many
5 other industry members, had studies at IBT. We did not
6 know what they were doing with those studies that
7 were -- we then submitted to EPA, believing them to be
8 useful, valid studies. We went back, and we repeated
9 the studies.

10 Q. So it's just bad luck, really, that the
11 guy who went to jail for this fraud happened to be a
12 Monsanto toxicologist?

13 MR. BRENZA: Assumes matters not in
14 evidence. Beyond the scope.

15 A. Again, I don't know what he did at IBT,
16 what his role was there, what Monsanto studies he
17 worked on, so I can't comment on that.

18 Q. (By Mr. Wisner) But you do know he went
19 to jail?

20 A. I am aware of that information, but again,
21 I don't know what his role was at IBT.

22 Q. You would agree, sir, from a sort of
23 third-party perspective, it sure looks like Monsanto
24 fabricated data to get Roundup approved; correct?

1 MR. BRENZA: Assumes matters not in
2 evidence. Calls for speculation. Beyond the scope.

3 A. Again, I wouldn't be able to discuss
4 what's going on there. We did not commit fraud to get
5 glyphosate on the record. We believed we had a valid
6 study.

7 Q. (By Mr. Wisner) Fair enough. Monsanto
8 didn't commit fraud; their toxicologist did?

9 MR. BRENZA: Beyond the scope. Assumes
10 matters not in evidence.

11 A. Yeah, again, he wasn't our toxicologist.
12 When whatever he did at IBT labs happened, we believed
13 we had a valid study. We repeated it after consulting
14 with EPA.

15 Q. (By Mr. Wisner) 1983, the study gets
16 completed; right?

17 A. Yes, that's correct.

18 Q. Also in 1983, that's when you at least
19 learn from this document that the EPA has deemed a
20 previous one from IBT to be invalid; right?

21 MR. BRENZA: Asked and answered. Beyond
22 the scope.

23 A. So again, once this pattern of behavior at
24 IBT was learned about, we worked with EPA, we conducted

1 a new study, and submitted it to the agency.

2 Q. (By Mr. Wisner) So at this time in 1983,
3 when you learned about this, did Monsanto amend the
4 Roundup label to tell consumers that the original study
5 studying whether or not this product could cause cancer
6 was deemed to be invalid by the EPA?

7 MR. BRENZA: Beyond the scope.

8 A. I'm not here to testify about our labeling
9 practices. I was not prepared to testify on behalf of
10 the company about labels.

11 Q. (By Mr. Wisner) So you don't know if the
12 label ever said that?

13 MR. BRENZA: Beyond the scope.

14 A. Again, I wasn't prepared by the -- to
15 speak on behalf of the company about our labels and
16 their historical content.

17 Q. (By Mr. Wisner) So you don't know?

18 MR. BRENZA: Beyond the scope.

19 A. Again, I was not prepared to speak on
20 behalf of the company --

21 Q. (By Mr. Wisner) I didn't ask if you
22 were --

23 A. -- about the label and the historical
24 content.

1 Q. I didn't ask if you were prepared. I
2 asked if you know. Do you know?

3 MR. BRENZA: Are you asking about his
4 personal knowledge?

5 MR. WISNER: Apparently. I can't ask him
6 about anything but what he knows, so I'm just asking if
7 you know.

8 MR. BRENZA: It's beyond the scope of what
9 he speaks for Monsanto about.

10 Q. (By Mr. Wisner) Okay. Well, in personal
11 capacity, do you know?

12 A. So speaking on behalf of myself and not on
13 behalf of the company?

14 Q. Yeah.

15 A. I've never read a label from 1974.

16 Q. Or an 1985?

17 A. Or a 1985 label.

18 Q. And you've never seen a label in the
19 twelve years you've been at Monsanto -- as personal
20 capacity -- that disclosed the original mouse study;
21 right?

22 A. So again, my personal knowledge is not of
23 Roundup labels from 1974 to 1985.

24 Q. I understand --

1 A. I don't know what those said.

2 Q. I understand you think that's funny, but I
3 mean, this is serious. This is fraud; right, sir?

4 A. This is a serious --

5 MR. BRENZA: Argumentative.

6 A. It's a serious issue. What I'm telling
7 you is I have not seen a Roundup label from 1974 or
8 1985.

9 Q. (By Mr. Wisner) You understand that my
10 client started using this product in the 1980s; right?

11 A. That is my understanding.

12 Q. And do you think they deserve to know that
13 information when they were deciding to use this
14 product?

15 MR. BRENZA: Beyond the scope. Calls for
16 speculation.

17 A. So again, I would be speculating about
18 what that label said. I'm not prepared to discuss the
19 label from 1974 or 1985.

■ ■ [REDACTED] [REDACTED]

■ [REDACTED]

■ ■ [REDACTED]

■ ■ [REDACTED]

■ [REDACTED] [REDACTED]

1 ready.

2 Q. So you've seen this document before;
3 right?

4 A. Yes, I have.

5 Q. This is a document from the EPA; correct?

6 A. That is correct.

7 Q. And it's -- the date on here is March 4th,
8 1985; do you see that?

9 A. Yeah, stamped at the top.

10 Q. And it's titled consensus review of
11 glyphosate; right?

12 A. That is correct.

13 Q. This is a document that you have reviewed?

14 A. Yes, that's correct.

15 Q. It's a document that Monsanto has
16 considered in assessing its assessment of the safety of
17 glyphosate?

18 A. That's correct.

19 Q. It reads on February 11th, 1985, a group
20 of toxicology branch personnel met to evaluate and
21 discuss the database on glyphosate, and in particular
22 the potential oncogenic response of glyphosate.

23 Did I read that correctly.

24 A. That's correct.

1 Q. And then it says the following persons
2 were in attendance. Do you see that?

3 A. I do see that.

4 Q. And there are -- one, two, three, four,
5 five, six, seven -- eight people listed. Do you see
6 that?

7 A. I do see that.

8 Q. And by my count, there's -- one, two,
9 three, four, five -- six different PhDs. Is that
10 right?

11 A. Six -- yes, that's correct.

12 Q. And then there's a statistician in there?

13 A. That's correct.

14 Q. There's a DABT. Do you see that?

15 A. Yes, I do.

16 Q. What's a DABT?

17 A. That's a diplomate of the American Board
18 of Toxicology.

19 Q. Is that a really fancy degree?

20 A. It is a certification you can get for
21 taking a test.

22 Q. And that's specifically as it relates to
23 toxicology?

24 A. It's typically about -- it focuses on how

1 toxicology studies are conducted.

2 Q. Oh, okay. Well, that's appropriate.

3 We're dealing here with a toxicology study; right?

4 A. Yes, we are.

5 Q. And then you see it's actually signed by
6 every one of those people. Do you see it?

7 A. Yes, I do see that.

8 Q. And one of them was obviously Dr. Dykstra;
9 right?

10 A. That's right.

11 Q. And it says right underneath all their
12 signatures, the signatures above indicate concurrence
13 with this consensus report; right?

14 A. That's correct.

15 Q. And if we turn to Section E in this
16 report, there is a classification of glyphosate. Do
17 you see that?

18 A. I do see that.

19 Q. And it reads in accordance with EPA
20 proposed guidelines, the panel has classified
21 glyphosate as a Category C oncogen.

22 Do you see that?

23 A. I do see that.

24 Q. So it appears that as of this report, we

1 have a consensus statement of multiple scientists
2 within EPA classifying glyphosate as a Class C oncogen?

3 A. Yes, we have a panel within EPA that has
4 made that determination. I think the important thing
5 here is that they did not have the full body of data in
6 front of them.

7 Q. They had the only valid mouse study,
8 didn't they?

9 A. They did not have a full analysis of that
10 mouse study. A later one concluded that there was a
11 renal tubular adenoma in the control animals.

12 Q. Oh, we're going to get into that tumor
13 stuff.

14 A. All right.

15 Q. Don't worry about that. But as of this
16 point, the independent assessment by these -- one, two,
17 three, four, five, six, seven -- eight scientists at
18 the EPA was that, one, there was no tumor in the
19 control group; right?

20 A. Based on the information they had in front
21 of them, they believed there wasn't, but they were
22 incorrect.

23 Q. And then they've classified glyphosate as
24 a Class C oncogen; correct?

1 A. Yes, they made that determination based on
2 their understanding of the tumors, which was not
3 complete at that time.

4 Q. I'm giving you Exhibit 28. This is an
5 internal Monsanto document. I'll give you a chance to
6 look through it.

7 [Exhibit 28 marked for identification.]

8 A. Thank you.

9 Q. And once you've done that, please tell me
10 if you've seen it before.

11 A. All right. Thank you. And I have seen
12 this before. Just make sure I understood it.

13 Q. So this is an internal Monsanto document.
14 It's dated February 22nd, 1985; correct?

15 A. Yes, that's correct.

16 Q. So this is after that February 11th, 1985,
17 consensus meeting; correct?

18 A. That's correct.

19 Q. And this was a document prepared in the
20 regular course of Monsanto's business; correct?

21 A. That's correct.

22 Q. And it says right here regarding meeting
23 February 21st, 1985. Do you see that?

24 A. I do see that.

1 Q. And it appears that there were different
2 people who were present at that meeting; right?

3 A. Yes, it lists a group of people.

4 Q. And it looks like there was people from
5 the EPA?

6 A. That's correct.

7 Q. And there were Monsanto employees;
8 correct?

9 A. That's correct.

10 Q. And one person by the name of Fred
11 Johannsen?

12 A. Yes, I see that name.

13 Q. And his initials would be F.J.; right?

14 A. Yes, that's correct.

15 Q. And in the document, it says the meeting
16 mood was relaxed, informal, and open. The toxicology
17 branch had decided on a course of action on February
18 11th.

19 Do you see that?

20 A. I do see that.

21 Q. That's referring specifically to that
22 consensus document we just looked at?

23 A. Yes.

24 Q. It goes on to say, however, it was a split

1 decision and a very close call either way. Farber and
2 Burnham both openly discussed their concerns, listened
3 closely to our comments, and seemed to be making an
4 honest effort to reach the best solution.

5 Do you see that?

6 A. I do see that.

7 Q. And if we turn the page -- well, if you
8 look at what it says is it says, our -- on the first
9 page -- our objectives were, and it lists out three
10 different objectives; right?

11 A. I do see that.

12 Q. And then if you look kind of the way this
13 memo is written, each one of those objectives is sort
14 of discussed in section headers. Do you see that?

15 That's actually not entirely true. I take
16 back that question, sir.

17 A. All right.

18 Q. But anyway, if you turn the page, there is
19 a section that says concerns of toxicology branch.

20 Do you see that?

21 A. Yes, I see that.

22 Q. And it says Dr. Farber opened the meeting
23 by reciting the conclusions of the toxicology branch
24 internal peer review. Do you see that?

1 A. I do see that.

2 Q. And he says oncogenic in mouse, IARC
3 ranking C. Do you see that?

4 A. I do see that.

5 Q. Possible human carcinogen, one of the
6 weaker ones by that system. Do you see that?

7 A. Yes, I do.

8 Q. Company's letter was too weak to be
9 convincing. Did I read that right?

10 A. Yes, you did.

11 Q. Biologically significant rare tumors. Do
12 you see that?

13 A. I do see that.

14 Q. Statistically significant at an .05 level,
15 cited Tyrone at NTP. Do you see that?

16 A. I do see that.

17 Q. And NTP, that's the national toxicology
18 program?

19 A. That's correct.

20 Q. Historical controls not helpful. Do you
21 see that?

22 A. I do see that.

23 Q. And then it says will ask to resection
24 tissues, consider crystal formation, et cetera; right?

1 A. I do see that.

2 Q. And then if we turn to the next page, Page
3 3. Are you there, sir?

4 A. Yes, I am.

5 Q. And then starting in the second paragraph,
6 F.J. summarized Monsanto's position forcefully and
7 well.

8 Do you see that?

9 A. I do see that.

10 Q. And F.J. is referring to Fred Johannsen;
11 right?

12 MR. BRENZA: Calls for speculation.

13 A. Fred Johannsen is the only person on here
14 with those initials, but they don't really ever say
15 F.J. equals --

16 Q. (By Mr. Wisner) Well, there's nobody else
17 but that Fred Johannsen with the initials F.J. who was
18 apparently at this meeting?

19 MR. BRENZA: Calls for speculation.

20 A. All I can tell you is that Fred Johannsen
21 is listed as being present at the meeting. The F.J. is
22 used here, but they never define F.J.

23 Q. (By Mr. Wisner) And if you actually look
24 at the back of this, it's written by Lyle Gingerich.

1 Do you see that?

2 A. I do see that.

3 Q. Okay, good. So below that it says I asked
4 Dr. Farber if he had heard anything today that would
5 cause him to desire an additional meeting with Monsanto
6 scientists. He said no.

7 Do you see that?

8 A. I do see that.

9 Q. I asked if F.J. -- I asked F.J. if he had
10 detected any areas where we would obviously want to
11 come in quickly and discuss. He said no.

12 Do you see that?

13 A. I do see that.

14 Q. And if you go down, there is a paragraph
15 that reads F.J. do you see that?

16 A. There are a few. Can you go ahead?

17 Q. Yeah, just go down the paragraph that
18 begins F.J. asked.

19 A. Okay.

20 Q. It says F.J. asked, quote, short of a new
21 study or finding tumors in the control groups, what can
22 we do to get this thing off Group C?

23 Do you see that?

24 A. Just making sure I understand the full

1 context of what they're talking about here. All right.

2 Yes, I do see that.

3 Q. So F.J. is at this meeting with the FDA
4 saying if -- what's going to get it off Group C short
5 of finding a tumor in the control group; right?

6 A. So there's a problem there. You said FDA.
7 This is EPA.

8 Q. Oh, I'm sorry. Let me ask that question
9 again. So at this meeting -- I do a lot of
10 pharmaceutical cases, so I get mixed up sometimes.

11 But it appears here that in a meeting with
12 the EPA, F.J. asked that short of finding a tumor in
13 the control group, what would get this thing off Group
14 C; correct.

15 MR. BRENZA: Beyond the scope. Beyond the
16 scope. Calls for speculation.

17 A. He also asked -- so the full statement is
18 short of a new study, so he's asking either a new study
19 or if there was something else in the control groups.
20 That's what he's saying here.

21 Q. (By Mr. Wisner) That's right. At this
22 point, the data from Bio/dynamics and the data that the
23 EPA reviewed didn't have any tumors in the control
24 group for the kidneys; right?

1 A. They did not, and there's a mention up
2 here of an agreement -- or a suggestion to relook at
3 tissues.

4 Q. Yeah, they're going to resection them;
5 right?

6 A. Resection, let's take a look.

7 Q. That's right. But as of -- I mean, he's
8 straight-up speculating, short of finding a new tumor,
9 what's going to get it off Group C? That's what he
10 says.

11 MR. BRENZA: Beyond the scope. Calls for
12 speculation.

13 A. That's not all that's there in that
14 statement.

15 Q. (By Mr. Wisner) Well, isn't it true that
16 Monsanto then found a new tumor in the control group
17 after this meeting?

18 MR. BRENZA: Calls for speculation.
19 Beyond the scope.

20 A. We also conducted another study.

21 Q. (By Mr. Wisner) Well, back up. You never
22 reconducted the mouse study?

23 A. We conducted a rat study.

24 Q. So we're talking about the mouse study

1 here. And isn't it true that after this conversation
2 where he asked this question, Monsanto then discovered
3 a tumor in the control group?

4 MR. BRENZA: Assumes matters not in
5 evidence. Beyond the scope.

6 A. Again, what they're saying here is another
7 study or another look at those kidneys. So up here
8 they talk about that, and then we also conducted a new
9 study.

10 Q. (By Mr. Wisner) He doesn't say or another
11 look at the kidneys. He says or finding tumors in the
12 control group. That's what he said.

13 A. So these are kidney tumors --

14 Q. Yeah.

15 A. -- and so another tumor would have to be
16 in the kidneys for it to influence your understanding
17 of this.

18 Q. Exactly. And that's exactly what ended up
19 happening, isn't it?

20 A. And we conducted a new study.

21 Q. Never conducted the mouse study, sir.

22 A. We conducted a rat study and it found no
23 evidence of carcinogenicity.

24 Q. So they're talking about --

1 A. It confirmed the results of this study.

2 Please let me finish.

3 Q. Sorry.

4 A. Thank you.

5 Q. You confirmed the results of a mouse study
6 in a rat study?

7 A. Yes, exactly.

8 Q. We'll get to those later, I assure you,
9 sir. But let's just be very clear here. F.J. asked,
10 specifically stated, contemplated finding a tumor in
11 the control group before anyone had even found one;
12 right?

13 MR. BRENZA: Asked and answered. Beyond
14 the scope.

15 A. Again, that's not the full statement.

16 Q. (By Mr. Wisner) And then Monsanto found
17 one, didn't it?

18 MR. BRENZA: Beyond the scope. Asked and
19 answered.

20 A. So we can discuss the facts of that matter
21 if you have documents --

22 Q. (By Mr. Wisner) Sure. Monsanto found
23 another tumor, though. You know that; right?

24 A. Well, it's -- do you have a document that

1 discusses that?

2 Q. Sure.

3 A. Thank you.

4 Q. I have plenty of them. But you know that
5 Monsanto found another tumor in the kidney control
6 group; right?

7 MR. BRENZA: Beyond the scope. Assumes
8 matters not in evidence.

9 A. If you have a document that discusses how
10 that went -- that's a simplification.

11 Q. (By Mr. Wisner) It also would be very
12 clear, after Monsanto found that tumor, it was taken
13 off Group C; right?

14 A. So again --

15 MR. BRENZA: Assumes matters not in
16 evidence. Beyond the scope.

17 A. That's a simplification.

18 Q. (By Mr. Wisner) Is it? You think it's
19 too simple?

20 A. Yes, I do.

21 Q. Okay.

22 MR. WISNER: We're at 29? What exhibit
23 are we at.

24 MR. BRENZA: 29.

1 A. This is Exhibit 28, so 29.

2 Q. (By Mr. Wisner) I'm going to just write
3 ahead so I don't get lost here. All right, I'm handing
4 you Exhibit 29.

5 [Exhibit 29 marked for identification.]

6 Q. Oh, I'm so sorry, I only have one -- I
7 only have one copy of this. That shouldn't happen very
8 often, but I apologize. Anything I ask about we'll
9 have up on the screen, so that should help.

10 Please take a look this and let me know
11 after you've looked through it if it's a document
12 you've seen before.

13 A. All right. Thank you. All right. Thank
14 you.

15 Q. So you've seen this document before, sir?

16 A. Yes, I have.

17 Q. This is a memorandum also from the EPA;
18 correct?

19 A. That's correct.

20 Q. It's a document that Monsanto has reviewed
21 and considered in its review and consideration of the
22 scientific data in this case?

23 A. That's correct.

24 Q. And it's dated February 26, 1985; right?

1 A. That's right.

2 Q. So this would be after that meeting that
3 was discussed in the previous document?

4 A. That's correct.

5 Q. And it says here -- it's from Herbert
6 Lacayo. Do you see that?

7 A. Yes, the statistician.

8 Q. He's a statistician with the EPA?

9 A. That's correct.

10 Q. And it gives the background of it. And it
11 said glyphosate feeding study on Charles River CD-1
12 mice generated renal tubular adenomas in male mice at
13 the 5,000 and 30,000 ppm dose levels.

14 Do you see that?

15 A. Yes, I do.

16 Q. So we're talking about the mouse study
17 that we've been talking about so far?

18 A. That's correct.

19 Q. And he goes the registrant, Monsanto,
20 claims that such tumors are, quote, unrelated to
21 treatment.

22 Do you see that?

23 A. I do see that.

24 Q. And he says in support of that, they

1 provide historical data from Bio/dynamics and two other
2 laboratories; right?

3 A. That's what he says, yes.

4 Q. So then if you turn to Page 3 of this
5 memorandum. Are you there?

6 A. Yes, I am.

7 Q. It's the last paragraph in the section
8 above it, so just before remarks on false positives.
9 Do you see that?

10 A. I do see that.

11 Q. It's -- the statistician concludes under
12 such circumstances, a prudent person would redirect --
13 sorry, I'm going to give it to you again.

14 Under such circumstances, a prudent person
15 would reject the Monsanto assumption that glyphosate
16 dosing has no effect on kidney tumor production.
17 Another way of saying this is that if glyphosate were
18 truly unrelated to kidney production, we would expect
19 to see four or more tumors in less than one out of 100
20 experiments of the type sponsored by Monsanto. Thus,
21 glyphosate is suspect.

22 Do you see that?

23 A. I do see that.

24 Q. That's what this statistician concluded;

1 correct?

2 A. Yeah, this is a statistician. So his --
3 it's not clear if he has a background in the biology of
4 tumor production. I don't see an author on here that
5 knows -- that indicates that one way or the other.

6 Q. And then there's a section says remarks on
7 false positives. Do you see that?

8 A. I do see that.

9 Q. And it reads -- and second paragraph, it
10 says Monsanto -- well, I'll read it.

11 In reference one, Monsanto notes that,
12 quote, if 20 types of lesions were evaluated at a
13 probability level of .05, the number expected to be
14 positive would not be one in 20, but rather the
15 probability would be 64 in 100, an unacceptably high
16 value.

17 Do you see that?

18 A. I do see that.

19 Q. He goes on, Monsanto is referring to the
20 well-known fact that by examining enough data, it is
21 likely that one will find an excess of some tumor type
22 by chance alone, thus generating a false positive.

23 Do you see that?

24 A. I do see that.

1 Q. That's an argument that Monsanto makes to
2 this very day about the animal carcinogenicity data;
3 correct?

4 MR. BRENZA: Beyond the scope.

5 A. Is there some statement that you're
6 referring to to this day, false positives, or --

7 Q. (By Mr. Wisner) Well, I tried a case
8 against your company, and you raised this repeatedly.
9 So I'm just saying this is an argument, that if you do
10 enough tests, you're going to find something
11 eventually. This is the same argument that Monsanto
12 makes today about the animal carcinogenicity data;
13 right?

14 MR. BRENZA: Beyond the scope.

15 A. This is a very particular argument about a
16 statistical finding or lack of a finding. I don't
17 really see -- well, as I look at this statement, this
18 is essentially a statistical disagreement.

19 Q. (By Mr. Wisner) Well, let's see what the
20 EPA statistician said. Turning to the last page,
21 it's -- the first sentence is we disagree with the
22 registrant's position.

23 Do you see that?

24 A. Yes, I do see that.

1 Q. The registrant -- that's Monsanto?

2 A. That's correct.

3 Q. We go to the last sentence on that
4 paragraph. The registrant wishes to avoid false
5 positives, while those concerned with the public health
6 wish to avoid false negatives. Hence, for this reason
7 alone, Monsanto's argument is unacceptable.

8 Do you see that?

9 A. Okay. So you just went down to the
10 bottom?

11 Q. Yeah, the last sentence in the paragraph.

12 A. Yeah, I just want to make sure I've got
13 all the context here. I do understand that, yes. He
14 said that.

15 Q. And then you see the next --
16 second-to-last paragraph on the page, starts with
17 viewpoint. Do you see that?

18 A. Yes. I'm just -- okay. Yes, go ahead.
19 Go ahead.

20 Q. It says viewpoint is a key issue. Our
21 viewpoint is one of protecting the public health when
22 we see suspicious data. It is not our job to protect
23 registrants from false positives.

24 Again, registrants -- that's Monsanto;

1 right.

2 A. That's correct. Well, we are a registrant
3 of a product here.

4 Q. We sympathize with the registrant's
5 problem, but they will have to demonstrate that this
6 positive result is false.

7 Do you see that?

8 A. I see that, and what's giving me concern
9 is that this only identifies a single author, but then
10 I get to this paragraph and they're talking about we,
11 our. It reads very strangely.

12 Q. Yeah, it sounds like someone is concerned
13 with suspicious data; right?

14 A. Well -- no, they're referring to --

15 MR. BRENZA: Beyond the scope. Calls for
16 speculation.

17 A. Yeah, again, I can't really speak to what
18 Herbert Lacayo was saying here, but he's referring to
19 himself in the plural. And then as you look through
20 this paragraph, it just becomes -- there's punct --
21 well, there's misspellings and grammatical errors, and
22 he's going well beyond the topic of statistics here.
23 So I'm not really sure what the basis is.

24 Q. (By Mr. Wisner) Sir, I'm showing you a

1 paragraph where a person from the EPA is accusing
2 Monsanto of having suspicious data, and the first thing
3 you point out is a grammatical error?

4 A. It just --

5 MR. BRENZA: Assumes matters not in
6 evidence. Beyond the scope.

7 A. All I'm saying is I have a -- what
8 purports to be a memo about statistics, and it really
9 is going far afield from statistics, and so it's hard
10 to know what exactly Mr. -- or Dr., I guess -- Dr.
11 Lacayo or Mr. Lacayo was talking about.

12 Q. (By Mr. Wisner) Well, let me just ask you
13 straight-up. Is it your opinion on behalf of
14 Monsanto -- is it Monsanto's opinion that it is
15 Monsanto's job to prove this positive result false?

16 A. Our job is to make sure the agency has
17 accurate data with which to evaluate our products.

18 Q. What about protecting the public health?

19 A. That is part of that. By providing
20 accurate data, we do protect public health.

21 Q. At least here, it looks like Mr. Lacayo or
22 Dr. Lacayo -- I don't know what his background is --
23 but he seems to be thinking that Monsanto is
24 not protecting the public health.

1 MR. BRENZA: Assumes matters not in
2 evidence. Beyond the scope.

3 A. I can't read Mr. Lacayo's mind. All I can
4 tell you is our job is to provide the agency with
5 accurate data so that they are able to protect public
6 health.

7 Q. (By Mr. Wisner) So following this study
8 and following that conversation that Monsanto had
9 with the EPA that we discussed earlier, Monsanto hired
10 a guy by the name of Dr. Marvin Kushner; correct?

11 A. My understanding is that, yes, we did hire
12 Dr. Kushner.

13 Q. What was the purpose of Monsanto hiring
14 him?

15 A. He was a pathologist.

16 Q. What did you want him to do?

17 A. A pathologist's job is to look at tissues
18 from animal studies to understand is there evidence
19 here of some disease outcome. Specifically Dr.
20 Kushner looked at slides from this mouse study to
21 determine whether or not they were analyzed correctly
22 to begin with.

23 Q. And you would agree it would be highly
24 unscientific for him to have an opinion about what

1 those slides say before looking at them?

2 MR. BRENZA: Assumes matters not in
3 evidence. Speculation.

4 A. Is there a document that you would like to
5 discuss?

6 Q. (By Mr. Wisner) I'm asking you an
7 opinion. It has nothing to do with a document.

8 A. I'm sorry, I can't guess at the answer to
9 what you're asking about. If you have a document, I'd
10 be happy to review it.

11 MR. WISNER: Okay, I'm going to have him
12 reask the question, and we'll see if you can answer it;
13 okay.

14 [The pending question was read.
15 by the reporter.]

16 MR. BRENZA: Assumes matters not in
17 evidence. Beyond the scope.

18 A. So what I'm saying is if you have a
19 document discussing Dr. Kushner's views, I'd be happy
20 to look at it.

21 Q. (By Mr. Wisner) So you can't answer that
22 question without seeing a document?

23 A. I would like to see the document you're
24 referring to.

1 Q. I'm asking you a question that -- it's
2 sort of like common sense, though. You can't answer
3 that?

4 MR. BRENZA: Assumes matters not in
5 evidence. Asked and answered.

6 A. Again, if you have a document, I'd be
7 happy to look at it and we can discuss.

8 Q. (By Mr. Wisner) So just to be clear,
9 you're refusing to answer my question; is that right?

10 MR. BRENZA: Asked and answered. Beyond
11 the scope.

12 A. I'm refusing to guess as to what you're
13 going to discuss without seeing the document in
14 question.

15 Q. (By Mr. Wisner) I know, it's great to
16 know what I'm going to show you, but you see, here's
17 where I get to see what Monsanto's position is before
18 it starts trying to spin a document. So I'm going to
19 give you a chance to answer this question. I think
20 it's straightforward. And if you can answer it, that's
21 fine. That will be Monsanto's testimony. Okay?

22 So my question is this, sir. Is it
23 Monsanto's opinion that it would be appropriate for Dr.
24 Kushner to have an opinion about those slides before

1 seeing them.

2 MR. BRENZA: Argumentative. Vague.

3 A. Again, if you have --

4 MR. BRENZA: Asked and answered.

5 A. If you have a document describing Dr.
6 Kushner's views, I'd be happy to look at it.

7 Q. (By Mr. Wisner) So you can't answer that
8 question?

9 MR. BRENZA: Asked and answered.

10 A. Again, if you have a document describing
11 Dr. Kushner's views, I'd be happy to look at it.

12 Q. (By Mr. Wisner) Sir, please answer my
13 question. Can you answer the question or not?

14 MR. BRENZA: Calls for speculation.
15 Beyond the scope.

16 A. I'd be happy to discuss any document you
17 have describing Mr. -- Dr. Kushner's views.

18 MR. WISNER: Okay. So I'm just going to
19 make a formal objection that this witness has not
20 responded to my question.

21 Q. (By Mr. Wisner) Hand you Exhibit 30.

22 [Exhibit 30 marked for identification.]

23 MR. BRENZA: And Brent, before you go on,
24 is this being recorded.

1 MR. WISNER: Uh-huh.

2 MR. BRENZA: The ELMO?

3 MR. WISNER: Uh-huh.

4 MR. BRENZA: All right. Can we just
5 stipulate that your highlighting is put on there by you
6 and not part of the original document?

7 MR. WISNER: Sure.

8 MR. BRENZA: Okay. I just want to make
9 sure that's clear.

10 MR. WISNER: Sure. And listen, when we
11 come to cut the video, we can have a discussion about
12 whether or not we want to redo it with a fresh document
13 or not. It's up to you. But --

14 MR. BRENZA: I just wanted to make sure
15 that --

16 MR. WISNER: The stuff that will be sure
17 shown is the one I wrote these things.

18 MR. BRENZA: I just wanted to make sure
19 that if the jury sees these documents with your
20 highlighting on them, they know that you put that there
21 and not the company.

22 MR. WISNER: Fair enough. And if we need
23 to do a curative instruction or something, no problem.

24 Q. (By Mr. Wisner) Sir, I've handed you

1 Exhibit 30. Have you had a chance to look through it?

2 A. Yes, I have.

3 Q. You recognize this document?

4 A. Yes, I do.

5 Q. Seen it before?

6 A. Yes, I have.

7 Q. This is an internal Monsanto document
8 dated April 3rd, 1985; correct?

9 A. That's correct.

10 Q. So this is after that meeting with the
11 EPA?

12 A. That's correct.

13 Q. This is after that memo we just looked at
14 from Dr. Lacayo specifically discussing suspicious
15 data?

16 MR. BRENZA: Argumentative. Assumes
17 matters not in evidence.

18 A. The document was about a statistical
19 analysis of a letter that Monsanto had provided.

20 Q. (By Mr. Wisner) Well, I'm just going to
21 go back to the document, because I'm not making this
22 up. Go back to the document, sir.

23 It says right here our viewpoint is one of
24 protecting the public health when we see suspicious

1 data. That's what he says; right.

2 A. That is a statement in the letter. It
3 doesn't refer directly to glyphosate from the plain
4 words on the page. What he's talking about is
5 statistics.

6 Q. Well, let's actually look at what he says
7 about glyphosate. In the earlier page, he says thus
8 glyphosate is suspect; right?

9 A. That is -- that is a statement he has
10 there. It's not clear what his basis for that is,
11 using just that sentence alone.

12 Q. I'm sorry, he has a whole couple of pages
13 discussing the basis of it. What are you talking
14 about?

15 MR. BRENZA: Argumentative. Beyond the
16 scope.

17 A. What he has here is a discussion on
18 statistics and then he inserts what appears to be
19 personal opinion. It's not clear what the basis for
20 that is.

21 Q. (By Mr. Wisner) So after this
22 statistician discusses or uses the word suspicious data
23 and states glyphosate is suspect, and after Monsanto's
24 meeting with the EPA where a question about finding a

1 tumor in the control group was raised, that's before
2 this document that's in front of us; right?

3 A. Yes, that's correct.

4 Q. And this document was created in the
5 regular course of Monsanto's business; correct?

6 A. That's correct.

7 Q. And it's from George Levinskas?

8 A. That's correct.

9 Q. And it's to T. F. Evans?

10 A. That's correct.

11 Q. And it reads, starting in the second
12 paragraph, senior management at EPA is reviewing a
13 proposal to classify glyphosate as a Class C possible
14 human carcinogen because of kidney adenomas in male
15 mice.

16 Do you see that.

17 A. I do see that.

18 Q. Dr. Marvin Kuschner will review kidney
19 sections and present his evaluation of them to the
20 EPA -- I'm sorry, to EPA in an effort to persuade the
21 agency that the observed tumors are not related to
22 glyphosate.

23 Do you see that.

24 A. I do see that.

1 tumors -- I'm sorry, let me give it to you again.

2 The EPA at this point decided to do a
3 resectioning of the tissues to do another review to see
4 if they observed this tumor as well.

5 A. What they did -- so EPA -- you bring them
6 information like that. They will say, okay, you have
7 something new here. Let's resection everything and
8 take a look across the board, which is what they asked
9 us to do, and then we had an independent pathology
10 working group come in and take a look.

11 Q. And so that took a couple months,
12 obviously; right?

13 A. I'm not aware of the exact time, but it
14 would take a while.

15 Q. And so let's fast-forward a few months to
16 October of 1985. Sorry, August of 1985. And I guess
17 I'm out of stickers. We're at Exhibit 32; is that
18 right?

19 [Exhibit 32 marked for identification.]

20 Q. I'm handing you Exhibit 32 to your
21 deposition, sir. Have you seen this document before?

22 A. Yes, I have.

23 Q. This is an internal Monsanto memorandum;
24 correct?

1 A. Yes, it is.

2 Q. Provided -- prepared by or signed by Mr.
3 Gingerich?

4 A. Yes, Lyle Gingerich.

5 Q. He was the same person who prepared that
6 memo regarding the EPA's meeting with the -- sorry.

7 He was the same person who prepared the
8 memo regarding the EPA's meeting with Monsanto.

9 A. That's correct.

10 Q. This is dated August 20th, 1985. Do you
11 see that?

12 A. Yes, I see that.

13 Q. And the first sentence of this memo reads
14 if the results of the kidney resectioning do not
15 resolve the glyphosate issue with an OPP, we will be
16 faced with an adverse OPP decision.

17 Do you see that.

18 A. I do see that.

19 Q. And OPP is a division within EPA that
20 stands for office of pesticide programs; correct?

21 A. That's correct.

22 Q. It is likely that OPP will ask the SAP for
23 concurrence in this determination that there is a
24 treatment-related effect in the glyphosate mouse study.

1 Do you see that.

2 A. I do see that.

3 Q. And the SAP is a scientific advisory
4 panel; right?

5 A. That is my understanding of how they use
6 that term.

7 Q. And a scientific advisory panel is a group
8 of scientists that review things for the EPA?

9 A. Yes. They don't work for the agency.

10 Q. Great. I'm going to ask that question
11 again. Bless you.

12 The SAP is a group of scientists that
13 review things for the EPA.

14 A. That's right, who don't work for the
15 agency.

16 Q. Exactly. And if you read the third
17 paragraph. Can we change the focus of the question to
18 the SAP to, quote, is 30,000 PPM too high to be used in
19 a meaningful risk assessment, end quote.

20 Do you see that.

21 A. I do see that.

22 Q. And in fact, Monsanto has argued even to
23 this day that the Knezevich and Hogan's dose was too
24 high to be meaningful in a risk assessment; correct?

1 MR. BRENZA: Beyond the scope.

2 A. Yeah, so I'm not prepared to talk about
3 how Monsanto has discussed this in legal proceedings.

4 Q. (By Mr. Wisner) Oh, I'm not talking about
5 legal proceedings. I'm talking about from a scientific
6 perspective, it's Monsanto's opinion that the dose in
7 the Knezevich and Hogan study was too high to be
8 meaningful for risk assessment; correct?

9 MR. BRENZA: Beyond the scope.

10 A. So our position on that is consistent with
11 that of reviewers around the world. EPA actually has
12 noted that as well.

13 Q. (By Mr. Wisner) So that's a yes?

14 A. That that high dose is rather high.

15 Q. So that's a yes, that's an argument that
16 Monsanto thinks is correct even to this day?

17 A. So our position is that it does not show
18 evidence of carcinogenicity, this study does not show
19 that, but that study is -- that high dose is also
20 rather high.

21 Q. In any event, Mr. Gingerich is talking
22 about changing the focus of the SAP to that question;
23 correct?

24 A. That is the question that Mr. Gingerich is

1 asking in this letter.

2 Q. Do we have examples of any other pesticide
3 being fed at such a high level? If we assembled 10
4 respected toxicologists, would all 10 agree that the
5 feeding level is too high to be meaningful?

6 Do you see those questions he raises.

7 A. I do see that.

8 Q. And he goes, if so, I recommend we bring
9 all 10 of the toxicologists to the SAP meeting. There
10 is a tendency to, quote, count the votes, end quote, at
11 SAP meetings. We can make a difference by lining up a
12 large number of experts on our side.

13 Do you think -- you see that.

14 A. I do see that.

15 Q. And then it goes on, Dr. Moore and Dr.
16 Farber may be misreading the consensus of their
17 professional colleagues on this issue. With the
18 importance of this decision to Monsanto, I don't think
19 we can leave any doubts in the minds of the EPA or SAP
20 of what the consensus of the professional toxicologists
21 is on this issue.

22 Do you see that.

23 A. I do see that.

24 Q. So this appears to be a strategy to line

1 up a series of experts to appear at the SAP; correct?

2 MR. BRENZA: Calls for speculation.

3 Beyond the scope.

4 A. What he does is he starts -- Lyle
5 Gingerich has set up this question of are there 10
6 respected toxicologists who agree with us, and then he
7 goes on to speculate about what you could do if you had
8 such a group, and so that's really all he's doing.

9 Q. (By Mr. Wisner) And isn't it true that
10 Monsanto, I mean, specifically thought it was important
11 to identify and contact these outside experts so they
12 could testify to the EPA and SAP that glyphosate is not
13 oncogenic?

14 MR. BRENZA: Beyond the scope.

15 A. Yeah, it -- all he's really doing is
16 saying do we have -- is there such a group of people,
17 and if they do exist who have this position, would they
18 go and talk about their views.

19 Q. (By Mr. Wisner) I understand that, but
20 I'm not asking about what he said. I'm asking about
21 what Monsanto believed.

22 Monsanto believed at this time that it was
23 important to identify and contact these potential
24 experts and make sure that they could testify on behalf

1 of Monsanto at the EPA and at the SAP to say that
2 glyphosate's not oncogenic; correct.

3 MR. BRENZA: Beyond the scope. Calls for
4 speculation.

5 A. Yeah, I would be guessing as to whether or
6 not Monsanto at this time shared the opinion of Dr.
7 Gingerich. He's expressing his own views here.

8 Q. (By Mr. Wisner) We would have to look at
9 what they were saying back then; right?

10 A. Yes. Do you have a document?

11 Q. Yeah, we would have to go look at what
12 they said back then; right?

13 MR. BRENZA: Calls for speculation.
14 Vague.

15 A. If you have a document, I'd be happy to
16 look at it.

17 Q. (By Mr. Wisner) Please answer my
18 question, sir.

19 A. I'm merely pointing out that if you have a
20 document describing that, I'd be happy to look at it
21 and discuss.

22 Q. I understand, but you just said that I
23 don't know what Monsanto was thinking, and I said,
24 well, the way you'd find out is to go back and look at

1 what people were saying back then; right?

2 MR. BRENZA: Vague.

3 A. And again, if you have a document
4 describing that, I'd be happy to look.

5 Q. (By Mr. Wisner) I know, but do you agree
6 that's a proper way of doing this?

7 MR. BRENZA: Vague. Calls for
8 speculation. Beyond the scope.

9 A. I'd be happy to take a look at any
10 documents you have.

11 Q. (By Mr. Wisner) I don't understand how
12 you're not answering my question. I'm asking you a
13 question, and you're just refusing to answer it. I
14 mean, is that the position you're going to take?

15 A. My position is that if you have documents
16 describing what you want to discuss, I'd be happy to
17 look at it.

18 Q. Sure, and I'll show it to you in a second
19 all the documents I have. I got a whole freaking truck
20 of them; okay? But I asked you a question that had
21 nothing to do with documents. I asked you if you think
22 it would be appropriate and a way to figure out what
23 Monsanto was thinking about at the time to look at
24 documents created by Monsanto at the time.

1 MR. BRENZA: Calls for speculation.

2 Beyond the scope.

3 Q. (By Mr. Wisner) Do you think that's
4 appropriate, sir?

5 MR. BRENZA: Same objections.

6 A. So again, if you have documents, I'm happy
7 to look at them, I'm happy to discuss them.

8 Q. (By Mr. Wisner) I want you to know I'm
9 going to show the jury this colloquy between us, and
10 they're going to see that I'm asking you this question,
11 and they're going to see the answer you keep giving me.
12 So I'm going to give you one more chance to just answer
13 my question, and if you refuse to, then the jury will
14 see that that was a choice you made.

15 So my question to you is very
16 straightforward. You would agree that the best way to
17 determine what Monsanto's strategies and objectives
18 were back in the 1980s would be to look at what
19 Monsanto people were saying at the time; correct.

20 MR. BRENZA: Argumentative. Beyond the
21 scope. Move to strike the question.

22 A. If you have a document that describes what
23 you're talking about, I'd be happy to review it and
24 discuss.

■ [REDACTED]

■ [REDACTED]

3 MR. BRENZA: Brent, if you have a breaking
4 point coming up soon, let us know.

5 MR. WISNER: This is as good as any.

6 THE VIDEOGRAPHER: We are going off the
7 record at 3:44 PM.

8 [A brief recess was taken.]

9 THE VIDEOGRAPHER: We are back on the
10 record at 4:11 PM.

11 Q. (By Mr. Wisner) All right, Doctor, I've
12 handed you a document, Exhibit 34 to your deposition.
13 Do you recognize this document?

14 [Exhibit 34 marked for identification.]

15 A. Yes, I do.

16 Q. This is a document. It's been produced by
17 Monsanto in this litigation, and it's in a memo from
18 the Environmental Protection Agency. Do you see that?

19 A. I do see that.

20 Q. And it's dated December 12th, 1985; right?

21 A. That's correct.

22 Q. So this is after those internal memos that
23 we reviewed from Monsanto; correct?

24 A. Yes.

1 Q. And as you can see, it is from William
2 Dykstra, a PhD at the EPA?

3 A. That's correct.

4 Q. And it's to Robert Tyler. Do you see
5 that?

6 A. Robert Taylor, yes.

7 Q. Sorry. Taylor. And Dr. Dykstra -- he's
8 from the toxicology branch? We discussed that earlier?

9 A. Yes, that's correct.

10 Q. And this was a document that Monsanto had
11 obviously reviewed and considered as part of its
12 understanding of the regulatory history of Roundup?

13 A. That's correct.

14 Q. Background. Glyphosate was considered
15 oncogenic in male mice, causing renal tubule adenomas,
16 a rare tumor, in a dose-related manner. The incidence
17 of this tumor was zero, zero, one, and three in the
18 control, low-, mid-, and high-dose groups respectively.
19 Do you see that?

20 A. Yes, I do.

21 Q. And this is what this is referring to --
22 is typically in these sort of animal carcinogenicity
23 studies, there are four separate groups; right?

24 A. Yes, that's typical.

1 Q. The first group is the control group;
2 right?

3 A. That's right.

4 Q. They don't get exposed to the chemical?

5 A. That's right.

6 Q. And then you have a low-dose, a mid-dose,
7 and a high-dose group; right?

8 A. That's correct.

9 Q. And one of the things you're looking at
10 is, because it's in a laboratory, everything is highly
11 controlled -- you use that control to sort of compare
12 the rodents that are exposed to the chemical to the
13 ones that are not; right?

14 A. That's correct.

15 Q. And this reference to zero, zero, one,
16 three, that's referring to the incidence of the kidney
17 tumors that we were discussing in the original review?

18 A. That's correct.

19 Q. And it goes on. Additional evaluation of
20 all original renal sections identified a small renal
21 tubular in one control male, Animal Number 1028, which
22 was not diagnosed as such in the original pathology
23 report.

24 Do you see that?

1 A. Yes, I do.

2 Q. Subsequently -- sorry -- so it's talking
3 about the identification of this new tumor in -- sorry,
4 I shouldn't say new tumor. I'm not trying to
5 suggest -- so what he's saying here is they've
6 identified a potential tumor in the control group;
7 correct?

8 A. Yes, that they have -- essentially when
9 they went back, they looked at the control animals,
10 looked at their kidneys, they found an additional tumor
11 there that they had not noticed previously.

12 Q. Goes on, subsequently, toxicology
13 branch recommended that additional renal sections be
14 cut and evaluated from all control in
15 glyphosate-treated male mice. See that?

16 A. Yes, I do.

17 Q. And so that's your understanding? The EPA
18 went back and recut all of the tissues in the kidneys
19 for the male mice.

20 A. They made that actually a requirement for
21 Monsanto. So we had the laboratory -- let's resection
22 these tissues and then have a pathology working group
23 take a look at them.

24 Q. This review contains the evaluation of the

1 submitted results of the additional sectioning in
2 pathological data. See that?

3 A. I do see that.

4 Q. On the second page is the conclusion. Do
5 you see that?

6 A. Yes, I do see that.

7 Q. The results of the additional pathological
8 evaluation on recut kidney sections in male mice
9 demonstrated no additional tumors were present. Do you
10 see that?

11 A. I do see that.

12 Q. And then if you go down, you see the
13 actual review section of his document. You see that?

14 A. I do see that.

15 Q. And again, it reflects zero in the
16 control, zero in the low dose, one in the mid dose, and
17 three in the high dose; correct?

18 A. I do see that.

19 Q. And then it goes, the additional tumor in
20 the control group, which had been diagnosed from the
21 reevaluation of the original slides, was not present in
22 the recut kidney sections. Do you see that?

23 A. I do see that statement.

24 Q. So they went back and they recut it and

1 they didn't see this tumor in the control group?

2 A. That's right. So this is prior to the
3 path -- the -- yeah, the independent pathology working
4 group, who looked at the slides without any information
5 about which one was which.

6 Q. So as Monsanto predicted, there was in
7 fact a scientific advisory panel convened; correct?

8 A. Yes. And this was following the discovery
9 by the pathology working group, and their conclusion
10 that indeed these tumors were there.

11 Q. So there was an SAP convened?

12 A. Following the pathology working group.

13 Q. Handing you Exhibit 35.

14 [Exhibit 35 marked for identification.]

15 Q. This is a sort of summary of the SAP's
16 conclusions; right?

17 A. Yes, I see this.

18 Q. It's dated February 24th, 1986.

19 A. Yes. And if I could just have a moment to
20 make sure I'm familiar --

21 Q. Sure.

22 A. -- with the content here. All right.

23 Thank you.

24 Q. So this is a document that reflects sort

1 of the summary conclusions of the scientific advisory
2 panel?

3 A. That's correct.

4 Q. And just for the jury's understanding, a
5 scientific advisory panel -- what happened there was
6 various people testified about this issue related to
7 the mouse study?

8 A. So I can speak to generally at a science
9 advisory panel, EPA brings independent scientists in,
10 they want them to essentially conduct a peer review of
11 the agency's work and then provide feedback on what
12 needs improvement, clarification, anything like that.

13 Q. Exactly. And at this meeting, Monsanto
14 sends people to represent its interests; right?

15 A. Yes. Anyone they send -- anyone may go
16 and comment publicly.

17 Q. Exactly. And then the EPA sends
18 scientists as well to testify?

19 A. That's correct.

20 Q. And of course, anyone else can show up;
21 right?

22 A. That's right.

23 Q. And we actually saw that in that earlier
24 memo where we saw that memo about getting experts to

1 appear there because it has a tendency to sort of count
2 the vote. Do you recall that?

3 A. I remember that statement. I've never
4 actually seen NSAP where there was a vote counted.
5 They may be referring to something historical that no
6 longer occurs. I just don't know.

7 Q. Now, you understand that Monsanto did
8 actually employ or hire experts to come and testify at
9 the SAP?

10 A. So I'm not sure about hire. Is there a
11 document demonstrating we were hiring experts to come
12 in?

13 Q. Yeah. Well, they paid money to five
14 different experts who showed up and testified at the
15 SAP; correct?

16 A. I am aware experts testified. I'm not
17 aware that there was a hiring arrangement.

18 Q. Oh. They testified on their own free will
19 without being paid?

20 A. Well, sometimes that occurs. Do you have
21 a document demonstrating they were actually hired?

22 Q. I do. I don't have it on me right now. I
23 have all the invoices of what they paid -- what you
24 guys paid them, but why don't we -- I'll show that to

1 you tomorrow then, I guess. We'll print it out
2 tonight.

3 A. All right.

4 Q. But in any event, Monsanto did have
5 certain experts testify at the SAP; correct?

6 A. Yes.

7 Q. And this was the report generated, and
8 this was a report that Monsanto has seen; correct?

9 A. That's correct.

10 Q. And if we look at the sort of attachment
11 to the report, the sort of last page of it -- it's two
12 pages. There's one section that says panel response.
13 Do you see that?

14 A. Yes, I do.

15 Q. And it says here -- third sentence in that
16 paragraph, the vast -- do you see that?

17 A. Yes, I do see that.

18 Q. It says the vast majority of the
19 pathologists who examined the proliferative lesion in
20 the male control animal agree the lesion represented a
21 renal adenoma. Do you see that?

22 A. I do see that.

23 Q. Therefore, a statistical analysis of the
24 data should utilize this data? Do you see that?

1 A. I do see that.

2 Q. So they're saying, listen, since the vast
3 majority of people did see a tumor in that control
4 group, you should consider it?

5 A. What they're saying is that this is
6 referring to the pathology working group. This is
7 independent people who are hired, brought in, they take
8 a look at the slides without any information -- it's
9 blinded, is the way they described that -- and their
10 conclusion across the board was, yes, that's a tumor in
11 this kidney in this control animal.

12 Q. Is it your testimony under oath that the
13 pathology working group unanimously across the board
14 concluded that there was a tumor in the kidney?

15 A. So if we have a document, I'd be happy to
16 correct myself if I'm wrong.

17 Q. Well, that's what you just said? I'm --
18 that's what you're saying?

19 A. That's my recollection, but if there's a
20 document showing otherwise, I'd be happy to -- but that
21 was the conclusion over all the pathology working
22 group.

23 Q. In any event, said the vast majority of
24 pathologists; right?

1 A. Yes.

2 Q. So for example, the pathologist that we
3 looked at, Dr. Dykstra -- he wasn't part of that
4 majority; right?

5 A. I'm not aware that Dr. Dykstra was on that
6 panel.

7 Q. Well, he was a pathologist that looked at
8 the slides.

9 A. As part of the pathology working group?
10 In the blinded review?

11 Q. Well, we've seen multiple memos by him
12 where he's reviewed the study; right?

13 A. So there's a -- the pathology working
14 group was separate from EPA's review?

15 Q. I understand that. This doesn't say
16 pathology working group. It says the vast majority of
17 the pathologists. You see that?

18 A. Yes. And they could be referring to
19 people inside the company who conducted the study as
20 well as the pathology working group.

21 Q. As well as the EPA pathologist, Dr.
22 Dykstra; right?

23 A. Potentially, yes.

24 Q. We know Dr. Dykstra isn't in that majority

1 because he didn't agree that there was a tumor there.

2 A. So he drew his conclusions. The pathology
3 working group, however, when they looked at it, they
4 did not have any information about which animal was
5 which. It's a blinded review, and their conclusion
6 was, yes, there's a tumor in this control animal that
7 was missed.

8 Q. Hold on. You're saying Dr. Dykstra's
9 review wasn't blinded?

10 A. It may not have been.

11 Q. How do you know that?

12 A. Because those slides have identifiers on
13 them. You know which mouse is which. If you cover
14 that up -- that's what a pathology working group is
15 for, is to settle these sorts of disputes by having
16 blinded data.

17 Q. I just want to clear -- do you have any
18 evidence that Dr. Dykstra or that consensus panel that
19 originally reviewed the kidney tumor slide -- that they
20 did so unblinded?

21 MR. BRENZA: Asked and answered.

22 A. Yeah, again, we don't have any information
23 either way about how they did it, but I can tell you
24 the pathology working group was a blinded review. They

1 did not know which slide was which, and their
2 conclusion was that there was a tumor in the control
3 animal.

4 Q. (By Mr. Wisner) I didn't ask you a
5 question about pathology working group. I asked
6 about -- you speculated that Dr. Dykstra did an
7 unblinded review. I'm asking you, what is the evidence
8 behind that assertion? Do you have any?

9 A. Yeah. I don't believe there's any
10 evidence saying it was a blinded review.

11 Q. So you're just making it up?

12 A. No.

13 Q. I mean, you have nothing to base it on?
14 You're just saying it?

15 A. Typically when you do a pathology review
16 and it is blinded, they point that out because that's a
17 major point.

18 Q. So now you're saying your evidence is
19 because he didn't specify blinded review? Is that what
20 you're saying?

21 A. Typically when you have a blinded
22 pathology review, that's pointed out because that is a
23 major point about how a pathology review is being done.

24 Q. So let's just be clear then. Dr. Dykstra,

1 a doctor who is working on this mouse study from the
2 very beginning -- he has reviewed the resectioning, he
3 reviewed the original one, and he's concluded that
4 there was no tumor on the control group; right?

5 A. That was his conclusion.

6 Q. Anyway, it goes on here to say at the very
7 bottom of this paragraph, under these circumstances,
8 the panel does not believe it is possible to categorize
9 glyphosate clearly into Group C, possible human
10 carcinogen, or Group E, no evidence of carcinogenicity
11 for humans. The panel proposes that glyphosate be
12 categorized as Group D, not classified, and that there
13 be a data call-in for further studies in rats and/or
14 mice to clarify unresolved questions.

15 Do you see that?

16 A. Yes, I do see that. It refers to the rat
17 study we eventually submitted.

18 Q. It says mice and/or rats; correct?

19 A. That's correct. We submitted a rat study.

20 Q. Then actually the EPA then issued a
21 guidance document ordering Monsanto to redo a mouse
22 study; correct?

23 A. I don't know that they -- I don't believe
24 I've ever seen a document -- a guidance document that

1 ordered Monsanto to do something. Typically guidance
2 documents don't order specific companies to do specific
3 things. It's a data call-in.

4 Q. Well, I'll hand you Exhibit 36.

5 [Exhibit 36 marked for identification.]

6 Q. This is a guidance document for
7 glyphosate; right?

8 A. Yes.

9 Q. From the EPA?

10 A. That is correct.

11 Q. Dated June 1986; right?

12 A. That's correct.

13 Q. Just about five months after the SAP
14 meeting?

15 A. Let me just make sure of the date. About
16 four months.

17 Q. Okay. Great.

18 A. I'm sorry.

19 Q. Turn to Page 7.

20 A. Yeah, four months. Can I just have a
21 moment to review very quickly? Make sure I'm up to
22 speed.

23 Q. Sure, it's a long document.

24 A. Oh, it is.

1 Q. Are you going to go page-by-page?

2 A. I don't want to read the -- no, no, no,
3 no.

4 Q. I'm not going to ask you that much.

5 A. I don't want to do that. I don't want to
6 do that, as good as guidance documents are to read.

7 All right.

8 Q. So this is the EPA guidance document;
9 right?

10 A. Yes.

11 Q. And this is a document that obviously
12 Monsanto has reviewed as it was essentially directed to
13 Monsanto; right?

14 A. Well, it was directed to anyone
15 registering a glyphosate product -- any pesticide
16 product containing glyphosate as the active ingredient.

17 Q. And this is back in 1986? This is
18 basically Monsanto's deal; right?

19 A. So we were -- it was still under patent
20 for us, but there were other people who were able to
21 register products.

22 Q. Fair enough.

23 A. Or other companies. I'm sorry.

24 Q. Fair enough. So this was in part directed

1 towards Monsanto?

2 A. Yes, it was directed towards any company
3 registering a product containing glyphosate.

4 Q. Okay, great. Turn to Page 6. You there?

5 A. Yes, I am.

6 Q. And this is describing the mouse study;
7 right?

8 A. At the very top?

9 Q. Yeah. The first paragraph.

10 A. Yes.

11 Q. It goes on. It says the chronic
12 feeding/oncogenicity study in mice tested dosages of
13 1,000, 5,000, and 30,000 parts per million. Glyphosate
14 produced an equivocal oncogenic response in the mouse,
15 causing a slight increase in the incidence of renal
16 tubular adenomas -- benign tumor in the kidney -- in
17 males at the highest dose treated of 30,000 PPM. See
18 that?

19 A. Yes, I do.

20 Q. Toxicology branch ad hoc oncogenicity
21 committee tentatively classified glyphosate as a Class
22 C oncogen. See that?

23 A. I do see that.

24 Q. The studies were reexamined by a

1 consulting pathologist and data were submitted
2 indicating that an additional kidney tumor had been
3 found in the control males. No renal tumors were found
4 in controls in the original examination. You see that?

5 A. Yes, I do.

6 Q. And that consulting pathologist was Dr.
7 Kuschner; right?

8 A. Yes.

9 Q. The agency then requested that additional
10 kidney sections from the mouse study be prepared and
11 examined. You agree with that; right?

12 A. I do see that, yes.

13 Q. The resultant microslides were examined by
14 a number of pathologists. Those examinations revealed
15 no additional tumors, but confirmed the presence of the
16 tumors identified in the original study report.

17 Do you see that?

18 A. I do see that.

19 Q. The apparent lesion in the control kidney
20 was not present in any of the additional sections.
21 After examination of the slides, the agency concluded
22 that this lesion did not represent a pathologically
23 significant change.

24 Do you see that?

1 A. I do see that.

2 Q. So that was the agency's conclusion about
3 this tumor in the control slide?

4 A. Yeah, this is their account of the
5 historical information regarding that.

6 Q. So then it goes on in the bottom paragraph
7 specifically discussing the SAP. Do you see that?

8 A. I do see that.

9 Q. And if you turn to the next page, this is
10 what I wanted to get at. Let me know when you're
11 ready.

12 A. Yes, I am.

13 Q. It reads, after consideration of the
14 expert opinion of the SAP and reconsideration of all
15 relevant data for this compound, in particular the
16 statistical assessment provided by the SAP, the agency
17 agrees that available data are not sufficient to
18 adequately address the question of whether the apparent
19 effects noted in the mouse study are biologically
20 relevant. Therefore, in order to fully address this
21 question, the agency is requiring that this study be
22 repeated with a larger number of animals in each test
23 group so that the statistical power of the study is
24 increased.

1 Do you see that?

2 A. I do see that.

3 Q. So the agency did in fact require an
4 additional study?

5 MR. BRENZA: Object to form. Beyond the
6 scope.

7 A. So what they're saying is the agency is
8 requiring.

9 Q. (By Mr. Wisner) That's an order; right?

10 A. Well, it would come in the forms -- so
11 earlier on this document discusses data call-in, so
12 that's the mechanism by which they would do it. This
13 could be -- this document would be recounting perhaps
14 conversations that the agency has had, but it's the
15 official data call-in authority that the agency uses to
16 say submit a study. So that would be a separate
17 document.

18 Q. And you look at the -- on Page 5, under
19 the agency assessment. Do you see that?

20 A. This is going back now?

21 Q. Yeah.

22 A. Yes, I do.

23 Q. Summary signed statement -- you see that?

24 A. Yes.

1 Handing you Exhibit 38. After you've had a chance to
2 review it, let me know when you're ready to talk about
3 it.

4 [Exhibit 38 marked for identification.]

5 A. All right. All right.

6 Q. So this is a document from the U.S.

7 Environmental Protection Agency; correct?

8 A. Yes, it is.

9 Q. It's a document you've seen before?

10 A. I have seen this before.

11 Q. And it's a document that Monsanto has
12 reviewed in understanding the science behind the safety
13 of Roundup?

14 A. Yes, that is correct.

15 Q. And as you can see here, it's dated
16 January 5th, 1988; right?

17 A. That's correct.

18 Q. So we are nearly a year-and-a-half after
19 the registration document; correct?

20 A. Just to make sure. What is -- it was
21 June. I'm sorry. That's correct.

22 Q. And if you actually see here, it's from
23 Dr. Dykstra again. Do you see that?

24 A. I do see that.

1 Q. And it looks like he has actually signed
2 it on the top and it has a date of December 18th, 1987?

3 A. That's correct.

4 Q. And then it says through, and it has these
5 two people that it's through. Do you see?

6 A. Yes, I do see that.

7 Q. And then it looks like Theodore Farber
8 actually signed it as well on December 28th, 1987. Do
9 you see that?

10 A. I do see that.

11 Q. And it reads the requested action, to
12 reviewing Monsanto's comments relative to glyphosate
13 guidance document, registration standard. Do you see
14 that?

15 A. I do see that.

16 Q. And that's the document we looked at a
17 second ago?

18 A. That's correct.

19 Q. Monsanto specifically requests a waiver of
20 the inhalation LC50 with glyphosate and a waiver of a
21 repeat mouse oncogenicity study with glyphosate. You
22 see that?

23 A. I do.

24 Q. So Monsanto, in response to the

1 glyphosate -- the registration document -- specifically
2 said we want a waiver from having to do this mouse
3 study; correct?

4 A. That's correct.

5 Q. So --

6 A. Because we did not believe it was
7 scientifically justified.

8 Q. And so here's what Dr. Dykstra says. So
9 regarding your request for waiver -- the first one --
10 he actually concurred with waiving the inhalation
11 study. Do you see that?

12 A. I do see that.

13 Q. Number 2 says TB does not concur with
14 Monsanto regarding the waiver of the repeat mouse
15 oncogenicity study. See discussion in review section.
16 See that?

17 A. I do see that.

18 Q. TB -- that's the toxicology branch; right?

19 A. That's correct.

20 Q. And it goes on, toxicology branch requires
21 that the mouse oncogenicity study be repeated in males
22 only using larger numbers of animals for each dose
23 level to increase the statistical power of
24 the bioassay. Possibly 200 mice per group may be

1 needed. For the repeat study -- I'll stop right there.

2 Did I read that right?

3 A. Yeah, I just want to make sure I've got
4 that. It was that second part where you're talking
5 about the 200.

6 Q. You're on a different page than me.

7 A. Oh, okay. That's the problem. All right.

8 Q. Keep going back.

9 A. I thought you were on the conclusions
10 and rec -- oh, this conclusion and recommendation.

11 Q. Yeah. I'll just -- summary from the first
12 page. See? Number 1?

13 A. Oh, okay. All right.

14 Q. And then turn the page. Number 2 is what
15 I was reading from.

16 A. Sure.

17 Q. You see that?

18 A. Yes, I do see that.

19 Q. And then I read that paragraph -- you see
20 that paragraph?

21 A. Yes, I do.

22 Q. I read that right?

23 A. Can we just do that one more time to make
24 sure you've read that correctly?

1 Q. Sure. TB requires that the mouse
2 oncogenicity study be repeated in males only using
3 larger numbers of animals for each dose level to
4 increase the statistical power of the bioassay.
5 Possibly 200 mice per group may be needed.

6 Do you see that?

7 A. Yes, I do.

8 Q. So the EPA is saying, listen, we should
9 redo the study, but we'll just use male mice so we can
10 really get to the bottom of this using statistics?

11 A. This is the view of the toxicology branch,
12 so it's not the EPA overall. It's specifically the
13 view of William Dykstra. So it's -- part of the EPA is
14 saying this is how we see the data, this is how we see
15 what should be done, but they're not speaking for EPA
16 as a whole.

17 Q. And they're saying we need to do a larger
18 study so we can get to the bottom of it; right?

19 A. Yeah, they're saying their opinion is that
20 another study is going to be informative.

21 Q. And Monsanto vehemently opposed doing
22 that; right?

23 A. We believed it would not provide
24 additional data that would help understand the safety

1 of glyphosate.

2 Q. And just to be clear, if someone from your
3 company had testified that we always do studies
4 requested of us by the EPA, this document would suggest
5 otherwise; correct?

6 MR. BRENZA: Calls for speculation.
7 Beyond the scope.

8 A. Is there --

9 MR. WISNER: Can I ask the question
10 without you -- I didn't finish the question before you
11 objected. So --

12 MR. BRENZA: Sorry. I thought you were
13 finished.

14 MR. WISNER: I know. Let me get the
15 question out. Let him object before you answer.

16 Q. (By Mr. Wisner) If someone were to
17 testify -- a Monsanto employee -- that Monsanto always
18 conducts studies the EPA asks them to, this document
19 would suggest that's not true; correct?

20 MR. BRENZA: Calls for speculation.
21 Beyond the scope.

22 A. Is there some testimony from someone at
23 Monsanto saying that?

24 Q. (By Mr. Wisner) Could you please answer

1 my question, sir?

2 A. I would need to see a document. You're
3 saying that someone at our company testified like that.

4 Q. I'll have him read back the question if
5 you like. Like me to read back the question?

6 A. You may.

7 Q. Okay. Please read back the question.

8 [The pending question was read by the.
9 reporter.]

10 MR. BRENZA: Calls for speculation.

11 Beyond the scope.

12 A. So you're asking me to guess about someone
13 else's testimony regarding that topic? If you have
14 that, I'd be happy to review it and discuss it.

15 Q. (By Mr. Wisner) I'm actually not asking
16 you to speculate or guess. I'm actually asking you a
17 very specific question, and if someone testified on
18 behalf of your company or even in a deposition that
19 Monsanto always does studies demanded by the EPA, this
20 document would suggest otherwise; correct?

21 A. So --

22 MR. BRENZA: Calls for speculation.

23 Beyond the scope.

24 A. Again, if you have that testimony, I'd be

1 happy to review it and discuss it.

2 Q. (By Mr. Wisner) Well, let me just give
3 you it straight then. Isn't it true that it's false
4 that Monsanto has always done every study requested of
5 it by the EPA?

6 A. So again, given the context of what you're
7 saying, it sounds like you have some testimony that you
8 would like to discuss. I'd be happy to look at it.

9 Q. I didn't mention any testimony. I asked
10 you for Monsanto's position. Please answer my
11 question, sir. Or if you refuse to, please do so on
12 the camera so the jury can see it.

13 MR. BRENZA: Beyond the scope.

14 A. So again, could I have your question?

15 Q. (By Mr. Wisner) Sure, I'll have him read
16 it back to you.

17 A. Thank you.

18 [The pending question was read by the.
19 reporter.]

20 MR. BRENZA: Beyond the scope. Calls for
21 speculation.

22 A. So I'm not able to speak to every
23 interaction we've had with EPA on every product.

24 Q. (By Mr. Wisner) So my question is, it's

1 false then, based on the document we're looking at
2 right here, that Monsanto has always done every study
3 asked of it by the EPA?

4 MR. BRENZA: Calls for speculation.
5 Beyond the scope.

6 A. And again, I would not be able to answer
7 that question. The information I have does not prepare
8 me to speak on behalf of the company on that topic.

9 Q. (By Mr. Wisner) Let's be very clear here.
10 You're staring at a document where Monsanto is refusing
11 to do a mouse study that the EPA has asked it to do;
12 right?

13 A. No, I would not agree as refusing.

14 Q. Oh.

15 A. This isn't refusing. You can't refuse the
16 EPA.

17 Q. Oh, you can't?

18 A. No, you may not.

19 Q. So where's the mouse study, sir?

20 A. So it's a data call-in. Again, we
21 discussed that. Once they issue a data call-in and
22 you've agreed and they've agreed, there's nothing left.

23 Q. Well, then maybe you can explain to me
24 what happened, because as of right now, I see a

1 document from the EPA saying that Monsanto is required
2 to repeat the mouse study, and you're telling me that
3 Monsanto never repeated the mouse study, so how is it
4 that you always do what the EPA says when you didn't do
5 it here?

6 A. There's always a conversation with the EPA
7 about data requirements.

8 Q. Conversations in back rooms with
9 consultants?

10 A. No.

11 MR. BRENZA: Argumentative. Calls for
12 speculation.

13 A. So that is something that we -- that is
14 not true.

15 Q. (By Mr. Wisner) Hold on a second.
16 Monsanto regularly has personal conversations with
17 people at the EPA; correct?

18 A. We have conversations with EPA
19 representatives.

20 Q. You guys share text messages; correct?

21 A. There are instances where EPA officials
22 and Monsanto employees have texted each other.

23 Q. And through that relationship, Monsanto
24 was able to avoid having to do the mouse study;

1 A. That's correct.

2 Q. Let's talk a little bit about Roundup
3 animal studies; okay?

4 A. All right.

5 Q. Now, Monsanto obviously has never done one
6 of those; right?

7 A. Because we never had information in front
8 of us indicating that it would be necessary.

9 Q. Now, isn't it true, though, that an
10 independent researcher, Dr. Séralini, did attempt to do
11 that study?

12 A. He attempted with a-poorly designed system
13 and ended up with results that could not be
14 interpreted.

15 Q. And you think that study is garbage;
16 right?

17 A. We believe that study does not provide
18 useful data for understanding anything of what Dr.
19 Séralini claimed to be examining.

20 Q. Because his study showed that when rats
21 eat Roundup, 80 percent of them get tumors, didn't it?

22 A. No, it did not show that.

23 Q. Let's take a look at it. All right.
24 So -- all right. Let's start from the beginning.

1 A. All right.

2 Q. Dr. Séralini published an article where he
3 looked at the long-term effects of feeding mice
4 genetically-modified corn as well as Roundup-formulated
5 pesticide; correct?

6 A. Which study is this? Because --

7 Q. It's the one.

8 A. So he had a study in 2012 where he looked
9 at rats.

10 Q. Exactly.

11 A. You'd said mice.

12 Q. Oh, I'm sorry. I misspoke.

13 A. Okay.

14 Q. Forgive me. I apologize. That is
15 confusing. He has actually done mice studies, so fair
16 enough. So fair enough. So in 2012 Dr. Séralini
17 published a study related to the toxicity effects of
18 feeding rats over a two-year period
19 genetically-modified corn and Roundup-formulated
20 product; correct?

21 A. Yes. His study was originally supposed to
22 be 90 days, and he extended it out to two years.

23 Q. Exactly. And that study was actually
24 based on a protocol that had been originally created by

1 Monsanto for a 90-day study?

2 MR. BRENZA: Beyond the scope.

3 A. The protocol there had no relationship to
4 what the -- to the protocols that we use. Those are
5 internationally-agreed-to protocols for those 90-day
6 studies. They do not involve extending out to two
7 years.

8 Q. (By Mr. Wisner) I know, because when
9 you -- Monsanto does not want to see what happens when
10 you feed a rat Roundup for two years; right?

11 MR. BRENZA: Argumentative.

12 A. That is not correct. The basis for that
13 study is to look at genetically-modified crops -- corn,
14 soybean, cotton -- and to be able to understand what
15 sort of effects -- are there any effects that we see
16 from that, and universally the answer is no. Dr.
17 Séralini -- what he did here was a strange combination
18 of many other studies, and then he extended it out with
19 no protocol and his results are uninterpretable.

20 Q. (By Mr. Wisner) And notwithstanding your
21 criticisms of his studies, he at least did something
22 that Monsanto never did -- studied the long-term
23 effects of Roundup on rodents?

24 MR. BRENZA: Asked and answered.

█ [REDACTED]

10 Q. (By Mr. Wisner) Handing you Exhibit 41.

11 [Exhibit 41 marked for identification.]

12 Q. Do you recognize this document, sir?

13 A. Yes, I do.

14 Q. This is the Séralini study; correct?

15 A. Yes, it is.

16 Q. And this is Exhibit 41. It's a document
17 titled long-term toxicity of a Roundup herbicide in a
18 Roundup-tolerant, genetically-modified maize. You see
19 that?

20 A. I do see that.

21 Q. And this was authored by Dr. Séralini
22 and -- one, two, three, four, five, six -- seven other
23 scientists; correct?

24 A. That is correct.

1 Q. And this was published in the Food and
2 Chemical Toxicology journal?

3 A. That is correct.

4 Q. And this is something that Monsanto is
5 intimately aware with?

6 A. We are aware that this study was published
7 in Food and Chemical Toxicology.

8 Q. And it's something that Monsanto
9 scientists have reviewed; right?

10 A. That is correct.

11 Q. Something they've considered in assessing
12 the safety of Roundup?

13 A. That is correct.

14 Q. And this study, unlike all the other
15 long-term rodent studies that had really been conducted
16 to date, actually did involve a formulated
17 Roundup product; right?

18 A. I -- they described this as a long-term
19 toxicity study. I would not characterize it that way.

20 Q. Fair enough, but it involved Roundup;
21 right?

22 A. It is a study that involved Roundup
23 herbicide in a Roundup-tolerant genetically-modified
24 maize.

1 Q. And it lasted two years; right?

2 A. It was designed as a 90-day study, and
3 they let it go on to two years, and it prevented them
4 from being able to draw any conclusions.

5 Q. And while there's a lot of discussions
6 about the data, I just want to point out a few basic
7 things. If you turn to -- well, if you turn to Page
8 4224. You there?

9 A. Yes.

10 Q. And you look in the right-hand column.
11 You there?

12 A. Yes, I am.

13 Q. It reads, up to 14 months no animals in
14 the control group showed any signs of tumor, while 10
15 to 30 percent of treated females per group developed
16 tumors with the exception of one group, 33 percent in
17 GMO plus R. You see that?

18 A. I do see that.

19 Q. So that's saying that about a year or so
20 into the study there was no observable tumors in the
21 control group while there were observable tumors in 20
22 to 30 percent of the females in the other groups, with
23 the exception of this one group?

24 A. That is what they're saying.

1 Q. Good. By the beginning of the 24th
2 month -- so that would be two years; right?

3 A. Yes. By the beginning of the second year.
4 So this has already gone on past what any
5 internationally-accepted protocol would allow, even
6 if it had been well-designed to begin with, which it
7 was not.

8 Q. And two years -- that's generally the
9 lifespan of a rat?

10 A. Yes, it is.

11 Q. And that's --

12 A. And so they're allowing this to go on past
13 normal lifespan -- with the internationally-accepted
14 protocols, you end these studies at 24 months to avoid
15 having various false positive results.

16 Q. So you're saying --

17 A. They've allowed it to continue past that,
18 and it really negates the ability to draw any
19 conclusions from this study.

20 Q. I think you misspoke. You said they
21 allowed it to go past 24 months? Is that your
22 testimony?

23 A. That was my under -- so they ended it at
24 24 months? For every animal?

1 Q. Well, it's reporting the results at the
2 beginning of 24 months. So I would have to assume that
3 they --

4 A. Yeah, beginning of the 24th month. Let's
5 just make sure. Okay, so it's saying it is a 24-month
6 chronic -- they're saying it is a 24-month duration.

7 Q. And while I know you don't think it's
8 proper to have done a 24-month study in this context,
9 you would agree with me that typical rat studies that
10 are carcinogenicity studies last 24 months?

11 A. They -- so the 24-month study is often
12 what is used to understand carcinogenicity for many
13 chemicals.

14 Q. And that's because 24 months -- that kind
15 of constitutes the lifespan of a rat?

16 A. Yeah. When you're interested in using a
17 rat model, it's a 24-month protocol.

18 Q. And so they state here at the beginning of
19 the 24th month, 50 to 80 percent of female animals had
20 developed tumors in all treated groups, with up to
21 three tumors per animal, whereas only 30 percent of
22 controls were affected. The R treatment groups --
23 that's the Roundup treatment groups; right?

24 A. According to their terminology, it appears

1 to be, yes.

2 Q. The R treatment groups showed the greatest
3 rates of tumor incidents, with 80 percent of animals
4 afflicted -- affected -- with up to three tumors for
5 one female in each group. You see that?

6 A. I do see that.

7 Q. And so earlier when I -- well -- so it
8 does appear that they're reporting -- and whether or
9 not you agree with any conclusions that could be drawn
10 from that -- but they're at least reporting that in the
11 R treatment groups, 80 percent of the tumors -- sorry.
12 Strike that. Putting aside whether or not you agree
13 with the results or interpreting them, they're
14 reporting that 80 percent of the rats in the group
15 receiving Roundup had tumors; right?

16 MR. BRENZA: Mischaracterizes the
17 document.

18 A. They are not -- the thing to remember here
19 is this is a small number of animals. When they're
20 talking about this in percentages, what they're leaving
21 out is the fact that we're not seeing a
22 statistically-significant difference. We're not
23 finding -- what we're seeing is noise. The most likely
24 interpretation of this study is, you let these rats

1 live this long, and we end up with noise.

2 Q. You mean live this long -- 24 months?

3 A. With this variety of rat you have to be
4 very careful. You have to make sure you have enough
5 rats to know, am I seeing noise or not.

6 Q. So on Page 4226 --

7 A. Yes.

8 Q. -- there's photographs; right?

9 A. Yes.

10 Q. And if you look at Photograph L. That's
11 the Roundup?

12 A. That's correct.

13 Q. That's noise?

14 A. There is no control photo, so what we're
15 not seeing there is, what do the control animals look
16 like? This is one animal out of the group. This also
17 indicates a tremendous disregard for the animals that
18 they're using. You do not allow a study to go this
19 long when the tumors look like that. You euthanize the
20 animal.

21 Q. So your response to me pointing out this
22 picture is, one, well, I want to see the control group
23 photographs, I assume, and the second one is that they
24 did something unethical by letting this rat live as

1 long as it did?

2 A. When you look across the board, they've
3 got results for GMO, GMO plus R, and R. There's no
4 control. So if you're just showing photographic
5 evidence, where would the control animal be? That's an
6 important consideration in a study like this if you're
7 going to use photographs.

8 Q. But you would agree this rat here in
9 Photograph L that was in the Roundup group -- I mean,
10 it's severely diseased; right?

11 A. And based on the description, I agree this
12 one is -- they're all diseased. We also have heard
13 that the control animals had tumors. We have nothing
14 in this paper to tell us they didn't look identical to
15 these first three groups.

16 Q. Have you done a rodent study yourself
17 before?

18 A. Yes, I have.

19 Q. Have you ever seen a rat look like that?

20 A. No, because we would not allow an animal
21 to progress to that point. You would euthanize him
22 before the tumors became that large. This is simply
23 done for the purpose of a picture.

24 Q. So if they had euthanized the rat in this

1 study, 80 percent of them essentially would have died
2 before you ever got to 24 months because Roundup was so
3 toxic?

4 MR. BRENZA: Calls for speculation.

5 A. No, that is not correct.

6 Q. (By Mr. Wisner) Well, Dr. Séralini never
7 claimed this was a carcinogenicity study; correct?

8 A. He described it as a long-term study, but
9 I think that is also a stretch.

10 Q. He also never made any conclusions that
11 Roundup causes cancer, did he?

12 A. My understanding is he was concluding that
13 there was some sort of interaction between
14 Roundup-tolerant crops and Roundup.

15 Q. Well, let's look and see what he said.
16 Last page, last paragraph, right before the conflicts
17 of interest. Do you see that?

18 A. Yes.

19 Q. It says, altogether, the significant
20 biochemical disturbances and the physiological features
21 documented in this work confirm the pathological
22 effects of these GMO and R treatments in both sexes,
23 with different amplitudes. We propose that
24 agricultural edible GMOs and formulated pesticides must

1 be evaluated very carefully by long-term studies to
2 measure their potential toxic effects.

3 Do you see that?

4 A. I do see that.

5 Q. He's asking and proposing that people do
6 long-term studies on formulated pesticides; right?

7 A. He is, but there's nothing in his study
8 that would indicate that proposal is warranted. No one
9 around the world -- no one has ever looked at this
10 study to understand the safety of glyphosate or Roundup
11 and said I believe this. No authoritative body accepts
12 it as evidence.

13 Q. Looking at Picture L. This is a picture
14 of a rat that ate Roundup for two years, and you're
15 telling me there's no impetus whatsoever for Monsanto
16 to just go study the issue once and for all?

17 A. What I'm telling you is that -- so first
18 of all, the design of the study is insufficient to draw
19 any kind of conclusion. What I'm telling you as well
20 is that the control animals they're describing as also
21 having these types of tumors -- they're deliberately
22 excluding a picture of the control animal.

23 The other thing that I find disturbing
24 about this is they're using up space for color photos

1 for this, but not for histology over here. We have
2 some histology. Why not use the color on the
3 histology? That is a very -- that's concerning,
4 because if we have the funding and the space for color
5 photos of the rats, the histology would be much more
6 informative than those.

7 Q. So to be clear, I'm accusing your company
8 of refusing to study formulated product, and I show you
9 a picture of a tumor-infested rat that actually ate
10 Roundup for two years, and you respond to me -- if I'm
11 not clear -- that it's egregious that this author
12 provided a color photo of the rat but not of the
13 histological report?

14 A. The histology is the actual data that
15 allows you to draw conclusions about what do we
16 actually know about these tumors. What they're doing
17 over here is deliberately excluding the control, so now
18 you -- they're giving a very strange perspective to the
19 reader. They're trying to imply that controls -- there
20 is no control here, so we can't judge for ourselves.
21 All the rats look the same.

22 Q. It's pretty easy to criticize a study when
23 you yourself refuse to do the same study; right?

24 MR. BRENZA: Argumentative.

1 Q. If you look at the beginning e-mail, it
2 appears to be an e-mail from Dr. Eric Sachs sent to
3 several Monsanto employees; right?

4 A. Yes, that's correct.

5 Q. Included amongst those of course is Dr.
6 Heydens, Dr. Goldstein, Dr. Saltmiras, Dr. Vicini. See
7 that?

8 A. That's correct.

9 Q. Even Dr. Lemke is in there?

10 A. That's correct.

11 Q. And then if you turn the page, the subject
12 is, new scientist, colon, pressure mounts for
13 retraction of GM cancer study. You see that?

14 A. That's correct.

15 Q. All -- could there be a light at the end
16 of the tunnel? Eric. You see that?

17 A. I do.

18 Q. Bill Heydens responds, well, Eric, the
19 journal has acted pretty bizarrely thus far, so I'm not
20 going to hold my breath, and even if they do, we have
21 not heard the last of old G-E. I assume that refers to
22 Séralini?

23 A. That's correct.

24 Q. He has always adapted his approach to

1 criticism in the past and I expect he will do so again.
2 It may take him a while to get the necessary funding,
3 but he'll be back. You see that?

4 A. I do see that.

5 Q. And actually, one of the things that Dr.
6 Séralini proposes in his publication was to conduct
7 further long-term chronic studies on formulated
8 pesticides; right?

9 A. He did make that statement.

10 Q. So then in response Dr. Saltmiras
11 responds. Do you see that?

12 A. Yes.

13 Q. And he talks about reviewing retraction
14 guidelines from the committee on publication ethics.
15 You see that?

16 A. I do see that.

17 Q. And he says, should we consider following
18 up directly with Wally Hayes citing the COPE retraction
19 guidelines? If they do not retract, I believe the
20 editor-in-chief should at least issue an expression of
21 concern.

22 Do you see that?

23 A. I do see that.

24 Q. Are you familiar with expressions of

1 concern, sir?

2 A. Yes, I am. I've seen those --

3 Q. It's when the journal says there's
4 something fishy about this article; right?

5 MR. BRENZA: Object to form. Vague.

6 A. They don't say the word fishy. They just
7 typically say -- they talk about the editors are having
8 an expression of concern, and then they give the
9 grounds for that. And it's going to vary based on the
10 expression of concern.

11 Q. (By Mr. Wisner) Dr. Sachs says Bruce
12 Chassy included the COPE guidelines, the basis for
13 retraction in his letter to Wally Hayes back in
14 September and attached. Do you see that?

15 A. I do see that. I don't -- is the -- the
16 attachment's not here, though; is that correct?

17 Q. No. I'm not going to go through the COPE
18 guidelines right now. It goes on, and then Dr.
19 Saltmiras responds; right?

20 A. Yes.

21 Q. And he says, Eric, given the considerable
22 stress Hayes must have been under, I think a refresh
23 with the complete COPE retraction guidelines may prove
24 to be a valuable reminder. I have not been in contact

1 with him for over a month now, and I have not responded
2 to his request to consider becoming a reviewer for FCT.
3 You see that?

4 A. I do see that.

5 Q. So apparently Dr. Hayes had actually tried
6 getting Dr. Saltmiras to become a reviewer for the
7 journal.

8 MR. BRENZA: Beyond the scope. Calls for
9 speculation.

10 A. From the language here, it's not clear to
11 me who is involved in this conversation about becoming
12 an editor for the journal.

13 Q. (By Mr. Wisner) Says I have not responded
14 to his request to consider becoming a reviewer for FCT.
15 What's unclear about that, sir?

16 A. The word his. I'm sorry. So again -- his
17 request. Okay. So it appears there was some kind of
18 request for Dr. Saltmiras to become a reviewer for the
19 journal, but he has declined to respond to that and he
20 has not talked to Dr. Hayes in over a month.

21 Q. Isn't it true, sir, that Dr. Saltmiras
22 specifically leveraged his close association with Dr.
23 Hayes to help manage the Séralini issue?

24 MR. BRENZA: Beyond the scope. Calls for

1 speculation.

2 A. There's nothing here that would -- I would
3 describe as leveraging either in this document or the
4 previous ones.

5 Q. (By Mr. Wisner) Handing you Exhibit 46.
6 [Exhibit 46 marked for identification.]

7 Q. Take a look at that, sir, and you let me
8 know when you're ready to discuss it.

9 A. All right.

10 Q. So this is a document prepared by Dr.
11 Saltmiras; correct?

12 A. That's correct.

13 Q. This is his annual performance review;
14 correct?

15 A. Yes. This is -- based on the date it
16 appears to be a draft.

17 Q. And that was from fiscal year 2013; right?

18 A. That's correct.

19 MR. BRENZA: Beyond the scope.

20 Q. (By Mr. Wisner) And his title is a
21 toxicology manager? You see that?

22 A. Yes, that's what his position description
23 shows.

24 Q. Now, I know you said you wouldn't use the

1 word leveraged his relationship, but Dr. Saltmiras does
2 use that word; right?

3 A. Is there a point in the document?

4 Q. Sure. If you turn to the page ending in
5 303. You there? There's a section, it's a hashtag
6 throughout the late 2012. You see that?

7 A. Yes, I do see that.

8 Q. It reads, throughout the late 2012
9 Séralini rat cancer publication and media campaign, I
10 leveraged my relationship the editor if chief of the
11 publishing journal, Food and Chemical Toxicology, and
12 was the single point of contact between Monsanto and
13 the journal.

14 Do you see that?

15 A. I do see that.

16 Q. So Dr. Saltmiras, in assessing his own
17 performance, is specifically noting that he leveraged
18 his relationship with Dr. Hayes?

19 A. He does not say to what end, but he does
20 use the word leveraged.

21 Q. And then earlier in the document, if you
22 turn to the page ending in 300 --

23 A. Yes.

24 Q. And if you look at the page on the left

1 side under four. Do you see that?

2 A. Yes, I saw that.

3 Q. It says, as a member of the Monsanto
4 issues management team, respond to third-party
5 allegations in a timely manner as required. Do you see
6 that?

7 A. I do see that.

8 Q. And then if you look at the right, there's
9 a bunch of paragraphs that say four?

10 A. Yes.

11 Q. And then four three. You see that?

12 A. Yes.

13 Q. It says, successfully facilitated numerous
14 third-party expert letters to the editor which were
15 subsequently published reflecting the numerous
16 significant deficiencies, poor study design, biased
17 reporting, and selective statistics employed by
18 Séralini. In addition, coauthored the Monsanto letter
19 to the editor with Dan Goldstein and Bruce Hammond.
20 You see that?

21 A. I do see that.

22 Q. So according to Dr. Saltmiras and his
23 performance review, he's actually saying he
24 successfully facilitated these letters to the editor;

1 correct?

2 MR. BRENZA: Beyond the scope. Calls for
3 speculation.

4 A. Those letters to the editor -- we had that
5 problem that Dr. Hayes is describing where he's saying,
6 look, there's no information -- there's no scientific
7 information coming in. People are sending me blogs and
8 web links. I need reliable scientific information to
9 be able to make a decision. And so he's saying if
10 these aren't -- if I don't have letters to the editor,
11 I have no scientific information in front of me.

12 And so then I think it's entirely
13 justified here where you see what these letters to the
14 editor are describing.

15 This is an accurate characterization. The
16 numerous significant deficiencies, poor study design,
17 biased reporting, and selected statistics. And it was
18 simply getting people who already believed that and
19 were convinced that's what they were seeing in that
20 paper to share it through the appropriate channels with
21 the journal.

22 Q. So in fact, Monsanto helped orchestrate a
23 letter-writing campaign to get the Séralini journal
24 article retracted, didn't it?

1 MR. BRENZA: Vague. Beyond the scope.

2 A. I would disagree that we orchestrated a
3 letter-writing campaign.

4 Q. (By Mr. Wisner) Facilitated? Is that a
5 better phrase?

6 A. When we look at the other information that
7 we have here in the record, it shows that the journal
8 editor is saying, I can't rely on blog posts and web
9 links to make a scientific decision. I need reliable
10 scientific information.

11 Q. So did Monsanto facilitate a
12 letter-writing campaign?

13 A. So it's helping people understand you
14 can't just send in a blog post or make some post online
15 on social media and have that be considered scientific
16 information. If you believe what you're saying, you
17 have to submit it as a letter to the editor.

18 Q. I'm sorry. You didn't like the word
19 orchestrate. Do you like the word facilitate?

20 MR. BRENZA: Asked and answered.

21 A. Again, what I'm saying is there were
22 people who wanted to share their thoughts with the
23 journal about why this study was so deeply flawed,
24 about why there are so many methodological errors in it

1 that prevented it from producing reliable information,
2 but they are sharing them through web posts and blogs
3 and social media, and so then Dr. Hayes is saying, if
4 people want to talk about something, I need scientific
5 information. I need a letter to the editor. That's
6 the appropriate mechanism to communicate with a
7 journal.

8 Q. How about the word leveraged? Is that a
9 better word?

10 MR. BRENZA: Asked and answered.

11 A. And what page is this?

12 Q. (By Mr. Wisner) Sir, we just talked
13 about it a second ago.

14 A. It's the same one you've already referred
15 to?

16 Q. Yeah. And we said you don't like
17 orchestrate. You don't like facilitate. How about
18 leverage? Does leverage work?

19 MR. BRENZA: Asked and answered.

20 A. So again, what I'm saying is these people
21 have information, they are upset about this study.
22 These are scientists who believe that there was no
23 reason for this to be published in the first place.
24 They share their thoughts on a webpage or social media,

1 and the editor of the journal is saying that's not
2 scientific information; you need to share it to me
3 through a letter.

4 Q. (By Mr. Wisner) They were so upset about
5 this study that they didn't bother to send a letter to
6 the editor until Monsanto and CropLife got them to;
7 right?

8 MR. BRENZA: Argumentative. Beyond the
9 scope. Calls for speculation.

10 A. The specific reason why they ended up
11 submitting their letter to the editor is their decision
12 and they would have the most information about that.

13 MR. BRENZA: We got to wrap it up for the
14 night. So --

15 MR. WISNER: All right. Why don't we just
16 do this last document? I can really be done in about
17 five, 10 minutes, and you can cut me off then if I'm --
18 okay.

19 MR. BRENZA: Okay.

20 Q. (By Mr. Wisner) I'm handing you a
21 document. Please don't take five, 10 minutes to read
22 it. That's Exhibit 47. Please take a look at it and
23 let me know when you're ready to testify about it.

24 [Exhibit 47 marked for identification.]

1 A. All right. I'm ready.

2 Q. So this is a series of -- well, it's an
3 e-mail; right? From -- between Monsanto employees?

4 A. Yes, it is.

5 Q. And you've seen this before?

6 A. Yes, I have.

7 Q. And this document was created in the
8 regular course of Monsanto's business; correct?

9 A. That's correct.

10 Q. What we have here is an e-mail from Scott
11 Stevener. Do you see that?

12 A. Yes, that's correct.

13 Q. And it's sent to a bunch of employees,
14 including some people we've heard from before. Dr.
15 Sachs, you see?

16 A. I do see that.

17 Q. Dr. Goldstein?

18 A. I do see that.

19 Q. And the subject is FYI, the Goodman
20 affair, Monsanto targets the heart of science -- you
21 see that?

22 A. Yes, I do see that.

23 Q. And it appears that Scott Stevener has
24 sent an article that he'd found. You see that?

1 A. I do see that.

2 Q. And he writes a little paragraph and then
3 he actually quotes -- pastes the article in there. You
4 see that?

5 A. I do see that.

6 Q. And it reads, this article highlights
7 Richard Goodman's recent appointment as associate
8 editor for biotechnology at Food and Chemical
9 Toxicology, and that this could be the beginning
10 of Monsanto's and life science industry's push to seize
11 control of science.

12 Do you see that?

13 A. I do see that.

14 Q. And this was written in the Independent
15 Science News and Earth Open Source; right?

16 A. Yes. That appears to be the source of it.

17 Q. May 20th, 2013?

18 A. That's correct.

19 Q. And to be clear, sir, by this point in
20 2013, the journal has not retracted the Séralini
21 article; right?

22 A. My understanding is it was later in 2013.

23 Q. Yeah. So it was after this article?

24 A. Yes. It would've -- yes, that would've

1 happened later than this article appeared.

2 Q. Go down to the paragraph reading
3 fast-forward. Do you see that?

4 A. I do see that.

5 Q. It said fast-forward to September 2012
6 when the scientific journal, Food and Chemical
7 Toxicology, published a study that caused an
8 international storm, Séralini 2012. You see that?

9 A. I do see that.

10 Q. The study, led by Professor Gilles-Eric
11 Séralini of the University of Caen, France, suggested a
12 Monsanto genetically modified maize and Roundup
13 herbicide it has grown with posed serious health risks.
14 Do you see that?

15 A. I do see that.

16 Q. The two-year study -- the two-year feeding
17 study found that rats fed both suffered -- sorry. The
18 two-year reading -- let me get to you again. The
19 two-year feeding study found that rats fed both
20 suffered severe organ damage and increased rates of
21 tumors and premature death. Both the herbicide Roundup
22 and the GM maize are Monsanto's products. You see
23 that?

24 A. I do see that, but I would also note that

1 that's an inaccurate representation of what the article
2 found.

3 MR. BRENZA: Yeah. And I want to just
4 object. This is not a business record. This is
5 hearsay embedded in an e-mail, so --

6 MR. WISNER: Fair enough.

7 Q. (By Mr. Wisner) This was a document
8 shared amongst Monsanto employees; right?

9 A. This is -- yes, apparently this Scott
10 Stevener is forwarding an article he found online to
11 some other employees.

12 Q. Yeah. People at Monsanto; right?

13 A. Yes.

14 Q. And he even -- he has a little description
15 of the article and then he pastes it; right?

16 A. Yes, and than he pastes down.

17 Q. It goes on, subsequently an orchestrated
18 campaign was launched to discredit the study in the
19 media to persuade the journal to retract it. Many of
20 those who wrote letters to FCT, which is published by
21 "El-see-vee-er" -- did I say that right?

22 A. "El-se-veer."

23 Q. Had conflicts of interest with the GM
24 industry and its lobby groups, though these were not

1 publicly disclosed. Do you see that?

2 A. I see that, but it's also -- this article
3 doesn't have any information to back up all the claims
4 it's making.

5 Q. I'm just reading what it says.

6 A. It's simply -- it's just making
7 allegations with no backing.

8 Q. The journal --

9 A. It appears to be a blog, essentially.

10 Q. So you don't have any information about
11 whether or not people were writing letters that had
12 conflicts of interest?

13 A. All these people are -- all these -- what
14 is it -- Clair Robinson and Jonathan Latham (ph) are
15 doing is they're making all these sorts of statements
16 and they're not providing anything to back it up, so I
17 don't know how any reader would be able to say, okay, I
18 believe that.

19 Q. The journal did not retract the study, but
20 just a few months later, in early 2013, the FCT
21 editorial board acquired a new associate editor for
22 biotechnology, Richard E. Goodman. Do you see that?

23 A. I do see that.

24 Q. You do know that Dr. Goodman was in fact

1 hired by the FCT editorial board; correct?

2 A. That is beyond the information I have
3 prepared for on this deposition.

4 Q. It says, this was a new position seemingly
5 established especially for Goodman in the wake of the
6 Séralini affair. Do you see that?

7 A. I do see that.

8 Q. Do you know if Dr. Goodman was ever
9 employed by Monsanto?

10 A. I believe in the past he was a Monsanto
11 employee at one point.

12 Q. So if in fact the FCT editorial board did
13 hire an associate editor for biotechnology and they
14 specifically hired Dr. Goodman, they would have been
15 hiring a former Monsanto employee?

16 MR. BRENZA: Calls for speculation.
17 Beyond the scope. Hypothetical.

18 A. So could you repeat the question for me,
19 please?

20 Q. (By Mr. Wisner) Well, I think we've
21 already agreed to this. You acknowledged that Dr.
22 Goodman was formerly an employee of Monsanto?

23 A. That is my understanding that he used to
24 work for the company at one point.

1 Q. So if this journal did in fact hire him in
2 2013, they would have hired a former Monsanto employee?

3 A. If they actually hired him. That's the
4 part that I do not know.

5 Q. I understand. It goes on, Richard E.
6 Goodman is professor at the Food Allergy Research and
7 Resource Program, University of Nebraska. But he's
8 also a former Monsanto employee who worked for the
9 company between 1997 and 2004.

10 While at Monsanto, he assessed the
11 allergenicity of the company's GM crops and published
12 papers on its behalf on the allergenicity and safety
13 issues relating to GM food, Goodman and Leach, 2004.
14 Do you see that.

15 A. Yes, I do see that.

16 Q. So I just will stop right there. If this
17 article is correct, it appears in 2013 the journal had
18 hired a former Monsanto employee who worked on GM
19 crops?

20 MR. BRENZA: Beyond the scope. Calls for
21 speculation. Hypothetical.

22 A. Richard Goodman -- if this is correct,
23 Richard Goodman -- sorry.

24 MR. BRENZA: Go ahead. Go ahead.

1 A. Richard Goodman was a professor at the
2 University of Nebraska when the journal hired him.

3 Q. (By Mr. Wisner) And you would agree with
4 me it's just a few months after this e-mail -- later in
5 2013 -- the journal actually ended up retracting the
6 article, didn't they?

7 A. I have no reason to believe there's any
8 connection here as that question implies.

9 Q. Oh, I understand you don't think there's
10 any connection. But it's true after a few months after
11 this e-mail, they retracted the study; right?

12 A. That later in 2013 that decision was made,
13 but what was going on at the journal and what processes
14 and conversations were already underway I don't have
15 any information about.

16 MR. WISNER: So what I have left here
17 is -- I want to go through the retraction notice. You
18 want to do this tomorrow morning?

19 MR. BRENZA: I think we need to stop,
20 yeah.

21 MR. WISNER: Okay, great.

22 THE VIDEOGRAPHER: We are going off the
23 record at 6:40 PM.

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C E R T I F I C A T E

I, MARK ARNDT, a Certified Shorthand Reporter and Certified Court Reporter, do hereby certify that prior to the commencement of the examination, WILLIAM REEVES was sworn by me to testify the truth, the whole truth and nothing but the truth.

I DO FURTHER CERTIFY that the foregoing is a true and accurate transcript of the proceedings as taken stenographically by and before me at the time, place and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in this action.

MARK ARNDT, CSR, CCR, RPR

CSR No. 084-004711

CCR No. 1398

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ACKNOWLEDGMENT OF DEPONENT

I, _____, do
hereby certify that I have read the
foregoing pages, and that the same is
a correct transcription of the answers
given by me to the questions therein
propounded, except for the corrections or
changes in form or substance, if any,
noted in the attached Errata Sheet.

WILLIAM REEVES

DATE

Subscribed and sworn
to before me this
____ day of _____, 20____.

My commission expires: _____

Notary Public