

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3 SAN FRANCISCO DIVISION
4
5 IN RE: ROUNDUP PRODUCTS MDL NO. 02741
6 LIABILITY LITIGATION

6
7 THIS DOCUMENT RELATES TO: Hon. Vince Chhabria
8
9 ALL ACTIONS

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12 *CONFIDENTIAL*
13 (30(b)(6) CAPACITY FOR MONSANTO COMPANY)
14 VOLUME II
15 VIDEOTAPED DEPOSITION OF WILLIAM REEVES
16 TAKEN ON BEHALF OF THE PLAINTIFFS
17 JANUARY 24, 2019
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1 VOLUME 2, VIDEOTAPED DEPOSITION OF
2 WILLIAM REEVES, produced, sworn and examined on the
3 January 24th, 2019, at of Husch Blackwell, 190
4 Carondelet Plaza, Suite 600, St. Louis, Missouri,
5 before Tara Schwake, a Registered Professional
6 Reporter, Certified Realtime Reporter, Certified
7 Shorthand Reporter (IL), Certified Court Reporter
8 (MO), and Notary Public within and for the State of
9 Missouri.

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1 IT IS HEREBY STIPULATED AND AGREED by
2 and between Counsel for all parties that this
3 deposition may be taken by Tara Schwake, Notary
4 Public and Certified Realtime Reporter, thereafter
5 transcribed into typewriting, with the signature of
6 the witness being expressly reserved.

7 * * * * *

8 (Deposition commenced at 9:04 a.m.)

9 THE VIDEOGRAPHER: We are now on the
10 record. My name is Luke Arndt, I am a videographer
11 for Golkow Litigation Services. Today's date is
12 January 24, 2019, and the time is 9:04 a.m.

13 This video deposition is being held
14 in St. Louis, Missouri, In Re: Roundup Products
15 Liability Litigation for the United States District
16 Court, Northern District of California, San
17 Francisco Division. The deponent is Bill Reeves.

18 Will counsel please identify
19 themselves?

20 MR. WISNER: Brent Wisner on behalf
21 of the Plaintiffs.

22 MR. HOLLAND: Eric Holland,
23 Plaintiffs.

24 MR. BRENZA: Lin Brenza on behalf
25 Bayer, Monsanto, and defending the witness.

1 MR. BEROUKHM: Alex Beroukhim for
2 Defendants.

3 MR. ALTIERI: Joe Altieri for the
4 Defendant.

5 THE VIDEOGRAPHER: The court reporter
6 is Tara Schwake, and will now swear in the witness.

7 WILLIAM REEVES,
8 of lawful age, having been produced, sworn, and
9 examined on the part of Plaintiffs, testified as
10 follows:

11 MR. BRENZA: Before we get started, I
12 want to just address something about the remaining
13 time in the deposition. So it's our understanding
14 this was -- the deposition notice for this
15 deposition was in the MDL. That means the
16 deposition should last for seven hours. I believe
17 we've gone about six and a half, the court --
18 subject to court reporter verification.

19 I understand you're trying to cover
20 some topics that are a lot of topics and that
21 they're topics that may also do you good in the
22 JCCP, so we're willing to go a little bit longer
23 than that, but not indefinitely. So we need -- we
24 need some sort of a understanding of how much
25 longer we're going to go with this, and also I will

1 have some questions as well and I suspect you'll
2 have some redirect, recross after that, so we need
3 to just figure out timing.

4 MR. WISNER: So I'll just respond.

5 Various correspondence between counsel, not
6 yourself, Lin, but with other counsel representing
7 Monsanto and Bayer, the understanding was this
8 deposition was actually being taken in both the MDL
9 and the JCCP proceeding and in anticipation of this
10 deposition, I actually told counsel, listen, we're
11 not going to limit ourselves in the seven day. In
12 fact, in the JCCP I specifically said I needed two
13 full days to do this deposition.

14 If that's not going to be applicable
15 to the JCCP, which is what the understanding was
16 before this deposition took place, in anticipation
17 of the trial of the JCCP starting in March, then
18 that's a very fundamental change in the agreement
19 that we made.

20 So I -- I appreciate your point and
21 I'm trying my best to get through this. This is
22 the first time Monsanto has ever been presented as
23 a witness in this case or in the JCCP and as
24 evidenced by the fact that the witness spent 400
25 hours preparing and reviewing many hundreds of

1 documents, there is just a lot of stuff to cover.

2 It's a 40 year history of this product. So.

3 I am going to try my best to get
4 through this. I -- I am confident we'll finish
5 today.

6 MR. BRENZA: Okay. Well, just so you
7 can plan, I would expect to have in the range of
8 two hours after you're done, and I suspect you'll
9 have some after that. So.

10 MR. WISNER: Okay. So let's -- let's
11 -- thank you for that, it's helpful, and I will, I
12 think -- I think what I'd like to do is to try to
13 get out of here by 5:00. So I think what we can do
14 to help make sure that happens is just agree to
15 take very short breaks.

16 MR. BRENZA: Short breaks, and if you
17 -- if you could try to wrap up before lunch, maybe
18 that would work.

19 MR. WISNER: That's not going to
20 happen.

21 MR. BRENZA: All right. Well --

22 MR. WISNER: But I -- I will
23 definitely do my best to finish as soon as I can
24 and definitely give you your two hours, and if for
25 some reason we are not able to complete this

1 deposition today, or by 5:00, then we can talk
2 about maybe continuing it to another time if we
3 have to.

4 But my hope is to get done. I -- it
5 was my hope to get done yesterday. There's been a
6 lot of stuff going on.

7 MR. BRENZA: Okay.

8 MR. WISNER: I'm not accusing anybody
9 of anything. The witness has had to review
10 documents for substantial periods of time and
11 there's been some argument with the witness about
12 responsiveness. And I'm not casting stones. I'm
13 just saying, you know, that takes up time. So.
14 All right. Well, let's get going.

15 EXAMINATION

16 QUESTIONS BY MR. WISNER:

17 Q Good morning, Doctor.

18 A Good morning.

19 Q Just so the jury understands, and you
20 can confirm this, we are on our second day now;
21 right?

22 A That's correct.

23 Q Okay. I did wear my same tie and
24 shirt because I didn't bring more than one.

25 MR. BRENZA: That's not -- that's not

1 for continuity?

2 MR. WISNER: It does help with
3 continuity, but I just literally didn't bring that
4 many clothes. I didn't think I was going to be
5 here this long.

6 Q (BY MR. WISNER) So you recall when
7 we were discussing the -- the Seralini article and
8 I showed you an exhibit related to Dr. Goodman?

9 A Yes, I do recall.

10 Q And you stated that you didn't really
11 know whether or not he -- he was or was not in fact
12 hired by the journal?

13 A That's correct, based on that
14 article.

15 Q Okay. Are you familiar with the
16 Wayback Machine?

17 A Yes, I am.

18 Q All right. I'm handing you Exhibit
19 48 to your deposition. I'll represent to you this
20 is a -- a document reflecting the Food and Chemical
21 Toxicology Editorial Board and I got it from the
22 Wayback Machine, and if you look at the top right,
23 it tells you it's from October 8th, 2012.

24 You see that?

25 A Yes, I do.

1 MR. WISNER: One second. Okay.

2 Great. Thank you.

3 Q (BY MR. WISNER) It's from October --
4 okay, great. And as you see here, there's the
5 Food, Chemical Toxicology Editorial Board and we
6 have Wallace Hayes as the Editor-in-Chief for
7 Vision and Strategy.

8 Do you see that?

9 A I do see that.

10 Q So in fact, that -- that's consistent
11 with what we understand, as of this time frame, Dr.
12 Hayes was in fact the Editor-in-Chief?

13 A Yes, that is correct.

14 Q Okay. And it goes on for several
15 pages describing different people and I'll give you
16 a second to quickly look through it but please tell
17 me if you see Dr. Goodman on there.

18 A No, I do not.

19 Q Okay. And October 8, 2012, that
20 would have been when -- shortly after the Seralini
21 article was published?

22 A That's correct.

23 Q Okay. I'm handing you Exhibit 49.

24 And you can see this is the same document also from
25 the Wayback Machine but now it's dated July 19,

1 2012.

2 Do you see that?

3 A Yes, I do.

4 Q Or, yeah, July 19, 2013.

5 A '13. Okay.

6 Q Okay. So this is after the Seralini
7 article has been published; right?

8 A That's correct.

9 Q But it's before it's been retracted?

10 A That's correct.

11 Q Okay. And if you look through here,
12 again we have Dr. Hayes as the Editor-in-Chief.

13 Do you see that?

14 A I do see that.

15 Q All right. And then if we go down to
16 the second page, you see that Dr. Goodman is on
17 there?

18 A Yes, I do see that.

19 Q Okay. And Dr. Goodman, he is the one
20 who was a former Monsanto employee?

21 A Yes, and is currently a University of
22 Nebraska professor.

23 Q Okay. Great. We will be taking the
24 deposition of Dr. Hayes either later this month or
25 early next month.

1 A I understand.

2 Q And so we'll have a chance to confirm
3 all this, but based on what I've shown you, it does
4 appear the fact that Dr. Goodman was hired by the
5 journal as a -- to participate on the Editorial
6 Board after the Seralini article but -- was
7 published but before it was retracted?

8 MR. BRENZA: Beyond the scope. Calls
9 for speculation.

10 A I'm sorry, could you read me the
11 question back?

12 Q (BY MR. WISNER) Sure. So it appears
13 based on what I've shown you, that in fact Dr.
14 Goodman does appear to have been hired after the
15 Seralini article was published but before it was
16 retracted?

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

19 A Based on the information here, he
20 appears in -- he does not appear in 2012. He
21 appears in 2013.

22 Q (BY MR. WISNER) Okay. All right.
23 You obviously had a chance to review the retraction
24 notice that was issued when the -- when the journal
25 article was retracted?

1 A I have seen it previously, yes.

2 Q Okay. I'm handing you Exhibit 50.

3 You would agree this appears to be a fair and
4 accurate copy of that retraction notice?

5 A Yes, it does.

6 Q Okay. And these are -- are typically
7 done in journals when -- when an article has been
8 retracted; right?

9 A That's correct.

10 Q Okay. And this one specifically
11 relates to the Seralini article; right?

12 A Yes, it does.

13 Q Okay. Now, if we look at the actual
14 -- actual text in here, they kind discuss what
15 happened. It says, "Very shortly" -- do you see
16 that second paragraph?

17 A Yes, I do.

18 Q "Very shortly after the publication
19 of this article, the journal received Letters to
20 the Editor expressing concerns about the validity
21 of the findings it described, the proper use of
22 animals, and even allegations of fraud." I'll stop
23 right there.

24 Is that your understanding, that the
25 journal received letters to the editor making those

1 statements?

2 A Based on the -- on the text here,
3 yes.

4 Q Okay. And based on your review of
5 the letters to the editor that were actually sent
6 to the journal?

7 A Um, it's been a while since I've seen
8 those. I don't recall their exact content.

9 Q Okay. It goes on, "Many of these
10 letters called upon the editors of the journal to
11 retract the paper."

12 Do you see that?

13 A Yes, I do.

14 Q And this is consistent with that
15 email we saw from CropLife America requesting that
16 letters of the editor be sent to the journal
17 requesting retraction; correct?

18 MR. BRENZA: Beyond the scope. Calls
19 for speculation.

20 A The email from CropLife said -- you
21 know, gave instructions about how to submit a
22 letter to the editor, and this describes receiving
23 letters to the editor.

24 Q (BY MR. WISNER) Okay. "According to
25 the journal's standard practice, these letters, as

1 well as the letters in support of the findings,
2 were published along with a response from the
3 authors. Due to the nature of the concerns raised
4 about this paper, the Editor-in-Chief examined all
5 aspects of the peer review process and requested
6 permission from the corresponding author to review
7 the raw data. The request to review -- to view raw
8 data is not often made; however, it is in
9 accordance with the journal's policy that authors
10 of submitted manuscripts must be willing to provide
11 the original data if so requested. The
12 corresponding author agreed and supplied all
13 material that was requested by the
14 Editor-in-Chief."

15 Do you see that?

16 A I do see that.

17 Q Is it your understanding that in fact
18 Dr. Hayes and the journal staff were allowed to
19 review the raw data in the Seralini article?

20 A It says it was provided to the
21 Editor-in-Chief but he does not describe who
22 reviewed it.

23 Q Okay. He also states, the request --
24 "The corresponding author" -- okay. He also says,
25 "The Editor-in-Chief wishes to acknowledge the

1 co-operation of the corresponding author in this
2 matter, and commends him for his commitment to the
3 scientific process."

4 Do you see that?

5 A I do see that.

6 Q And the corresponding author here is
7 Dr. Seralini; right?

8 A Yes, according to the information
9 above.

10 Q Okay. It goes on, "Unequivocally,
11 the Editor-in-Chief found no evidence of fraud or
12 intentional misrepresentation of the data."

13 Do you see that?

14 A I do see that.

15 Q Now, based on this, the -- they're
16 saying there was no fraud af -- and they had access
17 to the raw data; right?

18 A I do see that.

19 Q Monsanto did not have access to the
20 raw data?

21 A Not to my knowledge.

22 Q Monsanto has never reviewed the raw
23 data?

24 A I am not aware if we have -- at the
25 time I do not -- my understanding is we did not

1 have the raw data at that time. I know that there
2 has been a -- some of the data from that study has
3 been shared beyond the journal, and so I can't
4 speak to whether or not individual Monsanto
5 scientists may or may not have -- have looked at.

6 Q Okay. Going to the -- the next page,
7 the -- the paragraph beginning "Ultimately." It
8 says, "Ultimately, the results presented (while not
9 incorrect) are inconclusive, and therefore do not
10 reach the threshold of publication Food and
11 Chemical Toxicology."

12 Do you see that?

13 A I do see that.

14 Q So apparently, after reviewing the
15 raw data, the editors did not think that the
16 results presented in the study were incorrect.
17 Correct?

18 MR. BRENZA: Beyond the scope. Calls
19 for speculation.

20 A The -- the statement here is simply
21 "the results presented (while not incorrect) are
22 inconclusive, and therefore do not reach the
23 threshold of publication for Food and Chemical
24 Toxicology." So just based on that statement alone
25 is what we know from them.

1 Q (BY MR. WISNER) Exactly. They're
2 saying that the data that they reviewed was not
3 incorrect?

4 MR. BRENZA: Asked and answered.

5 A Again, it's just -- it's simply the
6 language here, "the results presented (while not
7 incorrect) are inconclusive."

8 Q (BY MR. WISNER) Okay. And if you go
9 down to the bottom, it says, "The Editor-in-Chief
10 again commends the corresponding author for his
11 willingness and openness in participating in this
12 dialogue. The retraction is only on the
13 inconclusiveness of this one paper."

14 Do you see that?

15 A I do see that.

16 Q So apparently the -- the single and
17 most important ground for retracting this article
18 was inconclusiveness.

19 A That is -- that is what the
20 retraction notice states.

21 Q Okay.

22 A But above they -- they talk more in
23 detail about the small number of animals in the
24 study groups, the particular strain, the low number
25 of animals being a cause for concern, they -- they

1 list out more specifics about why they believe the
2 data are inconclusive.

3 Q Okay. And then, of course, the
4 Editor-in-Chief commends this author twice for his
5 transparency and willingness to work with the
6 scientific process; right?

7 MR. BRENZA: Beyond the scope. Calls
8 for speculation.

9 A I don't see the word transparency.

10 Q (BY MR. WISNER) Okay. Well,
11 cooperation and -- to the scientific process.
12 Correct?

13 MR. BRENZA: Same objections.

14 A Again, it -- I don't see what it --
15 where he mentions scientific processes.

16 Q (BY MR. WISNER) If you look on the
17 left side, "and commends him for his commitment to
18 the scientific process."

19 Do you see that? It's on the screen
20 too?

21 MR. BRENZA: On the left-hand side.

22 Q (BY MR. WISNER) "Commends him for
23 his commitment to the scientific process."

24 Do you see that?

25 A I do see that.

1 Q Okay. And then it says, "again
2 commends the corresponding author for his
3 willingness and openness in participating in this
4 dialogue."

5 Do you see that?

6 A I do see that.

7 Q Okay. So the journal is actually
8 commending him for his participation in the
9 scientific process?

10 A That -- those are the words they use
11 but they also describe significant scientific
12 concerns about this paper, and those are the
13 concerns that keep it from being considered by any
14 authoritative body or regulatory agency around the
15 world. It's also why Monsanto believes this is not
16 a reliable paper or useful for an understanding of
17 risk.

18 Q Sir, I asked if you the journal
19 commended him and you talked about regulators and
20 other things in the study. I -- is there a reason
21 why you answered that way as opposed to just
22 answering my question?

23 A I -- I answered your --

24 MR. BRENZA: Object to form. Go
25 ahead.

1 A So in the beginning I was just
2 confirming the statement that you mentioned was in
3 there, but I just wanted to clarify there's
4 additional information in here that discusses the
5 -- the specific scientific problems with this
6 paper.

7 Q (BY MR. WISNER) And I want to be
8 clear, this journal is commanding Dr. Seralini for
9 participating in the scientific process by giving
10 the raw data over to the journal.

11 Will you -- will you join the journal
12 in commanding Dr. Seralini for doing that?

13 A I am not an employee of that journal.
14 Monsanto is not an employee of that journal. We
15 are not a part of that journal. What I can say is
16 that this document describes the -- the journal's
17 reaction to Dr. Seralini's reaction to their
18 concerns, but also lays out in detail the
19 scientific concerns with this paper.

20 Q So that's a -- that's a no, Monsanto
21 will not commend Dr. Seralini for his willingness
22 to turn over the raw data?

23 A That is, again, that is the journal's
24 -- that is their position to say whether or not,
25 what they think of how this process went. We do

1 not have firsthand knowledge of that. All I'm
2 saying is that that commendation appears in a
3 document where they also describe the scientific
4 shortcomings of this publication.

5 Q As of this date in 2013, had Monsanto
6 ever shared all of its raw data on its animal
7 studies to the public?

8 A Some of the data we -- on some animal
9 studies for some products actually were shared by
10 the European Food Safety Authority and Dr. Seralini
11 did his own statistical analysis of that which was
12 later shown to be unreliable and in correct.

13 Q I -- I asked about Monsanto and you
14 talked about the European Food Authority. Let me
15 ask you again, sir.

16 Did Monsanto, at this date in 2013,
17 ever publicly share its raw data?

18 MR. BRENZA: Object to form.

19 A Share its raw -- could you be
20 specific about the raw data?

21 Q (BY MR. WISNER) Well, Monsanto has
22 been conducting studies on rodents and other types
23 -- types of tests on Roundup and glyphosate; right?

24 A That's correct.

25 Q Okay. And that's data has been

1 deemed by Monsanto publicly as a proprietary piece
2 of information; correct?

3 A That's correct.

4 Q Okay. So in 2013, had Monsanto ever
5 disclosed that proprietary information so it could
6 be subject to the scrutiny of peer review by the
7 public?

8 MR. BRENZA: Objection. Vague.

9 Beyond the scope.

10 A That data sits with regulatory
11 authorities. That data may also be requested by
12 the public in the US. That's through a Freedom of
13 Information Act request.

14 Q (BY MR. WISNER) Okay.

15 A They could go ahead and obtain it
16 that way.

17 Q So the only way a person could get
18 data would be to not go to Monsanto, who was not
19 giving the data, but to have to file essentially a
20 lawsuit against the government to get the data; is
21 that what you're saying?

22 MR. BRENZA: Mischaracterized the
23 testimony. Beyond the scope.

24 A They are submitting -- they are
25 submitting a request to the agency. They provide

1 the data. They provide that report with the raw
2 data in it. The only point of having to do that is
3 to ensure they are not at commercial interest that
4 would use the data for their own commercial
5 purposes.

6 Q (BY MR. WISNER) Okay. So this is,
7 cut to the chase, I have asked you this question a
8 couple of times. Let's see if we can get a
9 straight answer again.

10 So Monsanto has never publicly made
11 its data available, at least at the time of -- at
12 least at the same time as this article; correct?

13 A Sharing that data is part of the
14 requirements when you submit that data to the US
15 EPA.

16 Q I'm not talking about the EPA. I'm
17 talking about to the public. I'm talking about to
18 those very scientists who Monsanto had write
19 letters to the editor.

20 Has Monsanto ever exposed itself to
21 that same public scrutiny with regards to its data,
22 or has it just given it to the regulators and no
23 one else?

24 MR. BRENZA: Asked and answered.
25 Compound.

1 A They are able to -- if someone is
2 interested in obtaining that data, they go to the
3 agency, they file the request, they can receive the
4 data. The only condition is that they're not an
5 employee of a commercial interest.

6 Q (BY MR. WISNER) Isn't it true that
7 Monsanto has objected to the sharing of that data
8 by the EPA to interested parties?

9 MR. BRENZA: Vague. Beyond the
10 scope.

11 A I don't know what specifics of what
12 you're discussing.

13 Q (BY MR. WISNER) Well, Monsanto has
14 declared that data proprietary and because it's
15 proprietary, the EPA cannot share it with the
16 public. You understand that; right?

17 A So with the public, if someone goes
18 to EPA, they file that request, they can receive
19 the report.

20 Q No, they actually can't because
21 Monsanto has objected to doing it. You understand
22 that; right?

23 A Do you have a specific example you'd
24 like to discuss?

25 Q I can tell you about my interactions

1 with the EPA trying to get that data. They won't
2 give it to me, sir, because it's proprietary and
3 when it does come, it comes in sheets of paper with
4 a bunch of blacked out redactions because it's
5 proprietary.

6 MR. BRENZA: Move to strike.

7 Q (BY MR. WISNER) So you see, I -- I
8 can't engage in the same sort of peer review of
9 your data because you haven't made it available.
10 Don't you think that's unfair, sir?

11 MR. BRENZA: Move to strike --

12 A That's part of --

13 MR. BRENZA: -- assumes matters not
14 in evidence.

15 A So I don't believe that's unfair.
16 That's part of the process for submitting data to
17 EPA. That's how the federal regulations work.
18 People can go to the agency, request those studies
19 and obtain them. I don't know the specifics of
20 your case but I am aware of others where people
21 have obtained those reports.

22 Q (BY MR. WISNER) You work for Bayer
23 now; right?

24 A Bayer, I do, yes.

25 Q Bayer makes its clinical trials for

1 its drugs publicly available, doesn't it?

2 MR. BRENTZA: Beyond the scope.

3 A I am not aware of Bayer's policies
4 and I am not here to testify about those practices.

5 Q (BY MR. WISNER) They -- they post
6 their clinical trials on clinicaltrials.gov so
7 everyone can see what they're doing, don't they?

8 MR. BRENTZA: Beyond the scope.

9 A Again, I'm not here to testify about
10 Bayer's practices for the pharmaceutical business.

11 Q (BY MR. WISNER) Okay. But when it
12 comes to pesticides, they don't post it on their
13 website; correct?

14 A The Bayer website now contains Tier 2
15 summaries of all those reports and then the ability
16 for people to request any study they wish.

17 Q And that was after we filed our
18 lawsuits against Bayer; correct?

19 A I'm not aware of the exact timing.

20 Q Okay. All right. So there was a --
21 a substantial response to the -- the retraction of
22 the Seralini article; correct?

23 A Is there something specific that
24 you'd like to discuss?

25 Q Well, I mean do you -- I'm just

1 asking for your memory. There was a substantial
2 response within the academic community to the
3 retraction; correct?

4 A I remember seeing discussions of it
5 in online forums, but the specifics of how -- how
6 significant that was, I don't recall.

The image consists of a grid of black horizontal bars of varying lengths and positions. The bars are arranged in approximately 18 rows. Each row contains several bars, with some rows having more bars than others. The lengths of the bars vary significantly, from very short segments to long, continuous horizontal lines. The bars are set against a plain white background.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single short bar near the left edge, while others have multiple bars of different lengths. The lengths of the bars vary significantly, from very short segments to long, nearly full-width lines. This pattern suggests a binary matrix where some columns are entirely zero, while others contain sparse or dense patterns of ones.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, from very short segments to nearly full-width lines. This pattern suggests a binary matrix where '1's are represented by bars and '0's by the absence of bars. There are no vertical bars or other graphical elements present.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. The pattern is somewhat random but shows a clear vertical structure with distinct rows.

The image consists of a series of horizontal black bars of varying lengths and positions, arranged in a grid-like pattern. The bars are set against a white background and appear to be composed of multiple thin lines. They are positioned at different heights and widths across the frame, creating a sense of depth and complexity. The overall effect is reminiscent of a barcode or a series of binary code.

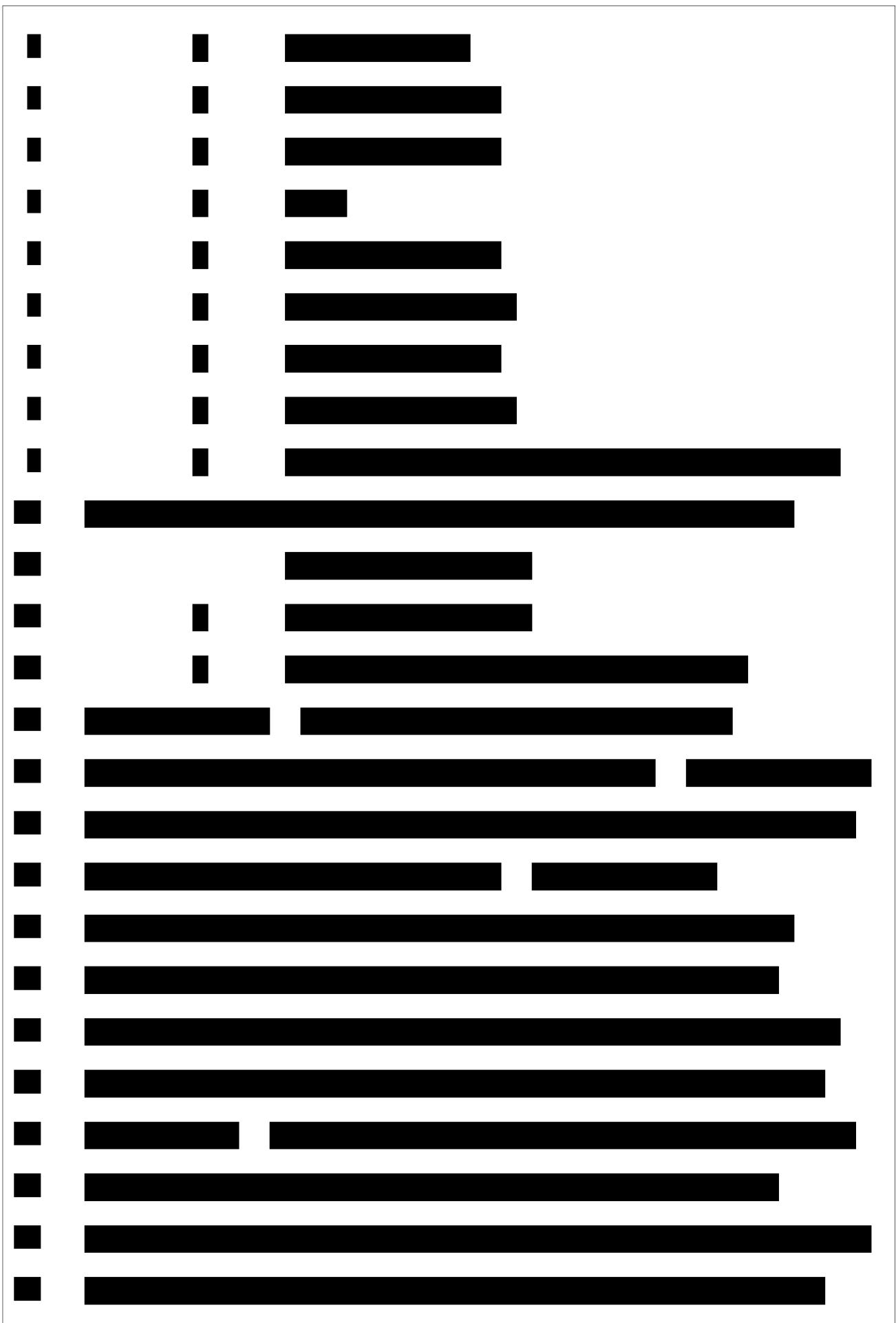
The image consists of a grid of black bars on a white background. There are 20 horizontal rows and 10 vertical columns. The bars are solid black and vary in length across the grid. Some bars are very long, while others are very short. The bars are arranged in a staggered pattern, with some bars starting at the beginning of a row and others starting partway through. There are also some bars that are positioned in the middle of a row. The overall effect is a abstract, geometric pattern.

The figure consists of a vertical column of approximately 20 horizontal black bars. Each bar's length varies, indicating different magnitudes or values. The bars are evenly spaced vertically. Some bars have small black tick marks at their left ends, while others do not. The overall pattern suggests a sequence of discrete measurements or data points.

A grid of 20 horizontal black bars of varying lengths. The bars are arranged in a single row. Each bar has a small vertical tick mark at its left end. The lengths of the bars decrease from left to right, creating a visual gradient effect.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns, creating a pattern that suggests a binary matrix or a series of encoded data. The lengths of the bars vary, indicating different values or states within the grid.

The image consists of a grid of black bars on a white background. The bars are arranged in approximately 20 horizontal rows and 6 vertical columns. Each row contains a sequence of bars of varying widths, with some rows having more bars than others. The bars are solid black and have thin white borders. The overall pattern creates a sense of digital or abstract data representation.



The image consists of a vertical column of horizontal black bars. The bars are of various lengths, creating a visual representation of data. Some bars are very long, while others are much shorter. There are also some very small, isolated black dots scattered among the bars. The overall pattern is somewhat abstract and could represent a signal waveform or a series of data points.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. There are also some small, isolated black dots and short segments scattered among the bars.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single short bar at the beginning, while others have multiple bars of different lengths. The lengths of the bars vary significantly, from very short segments to long, nearly full-width lines. This pattern suggests a binary matrix where some columns are entirely zero, while others contain sparse or dense patterns of ones.

The image displays a grid of 20 horizontal bars, each composed of two segments: a shorter black bar on the left and a longer black bar extending to the right. The bars are arranged in a single row. The first bar's short segment is positioned at the far left edge of the frame. Subsequent bars' short segments are placed further to the right, creating a visual gradient from left to right.

A vertical column of black horizontal bars of varying lengths. The bars are arranged in a descending staircase pattern, starting with a long bar at the top and ending with a short bar at the bottom. Each bar has a small black square at its left end.

This figure consists of a series of horizontal black bars of varying lengths and positions, arranged vertically. The bars represent data points or events, with their length indicating magnitude and their position indicating time or sequence. The pattern shows a general increase in bar length over time, with some fluctuations.

[REDACTED]

[REDACTED] [REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

21 Q Okay. I'm handing you Exhibit 55.

22 Can you please just confirm that is a fair and
23 accurate copy of the republished article?

24 MR. BEROUKHIM: Did you intentionally
25 go to 55?

1 MR. WISNER: Did I skip one?

2 THE WITNESS: You skipped -- I think
3 you skipped between 51 and 54.

4 MR. WISNER: Sorry.

5 MR. BEROUKHM: There was 52 and then
6 you just said this is 55.

7 MR. WISNER: Sorry.

8 MR. BEROUKHM: So 53 you want to
9 mark this one?

10 THE REPORTER: That's 54 right there.

11 MR. WISNER: Yeah, there's 54 right
12 here.

13 MR. BEROUKHM: I think you skipped
14 53. Where's 54?

15 THE WITNESS: These are the two I had
16 in order here.

17 MR. BEROUKHM: What's 54?

18 MR. WISNER: I might have skipped 54.

19 MR. ALTIERI: No, no, you skipped 52
20 and 53 is what I'm missing.

21 MR. WISNER: Okay.

22 MR. BEROUKHM: Oh. Wait, hold on.

23 So he marked this one as 53? 54?

24 MR. WISNER: Do you have two -- two
25 blue ones right here? I have 51 -- you're right.

1 I skipped 52 and 53. I apologize. We can just
2 leave them skipped. Okay?

3 MR. BEROUKHM: So this is 54. Okay.
4 I marked it wrong.

5 MR. WISNER: I -- I apologize. I --
6 I had two extra stickers that I -- I lost in the
7 shuffle. Told you, it's like a whirlwind.

8 MR. BEROUKHM: So the record is
9 clear --

10 MR. WISNER: Oh, there we are. Do it
11 -- that's what that --

12 MR. BEROUKHM: -- the record's
13 clear, we don't have a 52 and 53 in this
14 transcript.

15 MR. WISNER: That's right.

16 Q (BY MR. WISNER) All right, sir, an
17 you please confirm that Exhibit 55 is a fair and
18 accurate copy of the republished Seralini article?

19 A Yes, it appears to be so.

20 Q Okay. After the Seralini article was
21 republished, there has actually been scien -- sort
22 of a review of what's happened in the science
23 since; right?

24 A There's -- there's been a review of
25 what happened in the science since --

1 Q Yes.

2 A -- is that --

3 MR. BRENZA: Objection. Vague.

4 Q (BY MR. WISNER) Yeah, let me ask you
5 a better question. That's a terrible question.

6 A Okay.

7 Q You would agree there was an article
8 writ -- published fairly recently discussing the
9 Seralini retraction?

10 A I'm -- I'm not aware of a specific
11 article.

12 Q Okay. I --

13 A I'd have to see it to understand.

14 Q This is Exhibit 56. This is an
15 article by Eva Novotny.

16 Do you see that?

17 A I do see that.

18 Q And this is an article you have read?

19 A I have seen it in the past. Can I
20 have a minute?

21 Q Yeah, sure.

22 A If you want to ask about it, can I
23 just have a minute to take a look here? Make sure
24 I remember it all.

25 Q Sir, I -- I'm not going --

1 A Yeah, I just want to make sure.

2 Q -- to be asking you any --

3 A Okay. Great.

4 Q -- detailed questions about it.

5 A Sorry. All right.

6 Q We really don't need to spend time on

7 it.

8 A Sorry. Fair.

9 Q But you have reviewed this?

10 A Yeah, I have reviewed it before.

11 Q Okay.

12 A I just wanted to make sure I was

13 refreshed. Thank you.

14 Q Okay. And it was in fact -- it was

15 one of the documents you reviewed in anticipation

16 of your deposition today?

17 A That is correct.

18 Q And so you're familiar with its

19 contents; right?

20 A Yes, I am now.

21 Q And be fair to say both this

22 document, as well as the republished Seralini

23 article, these are documents Monsanto has reviewed

24 and considered in understanding the science behind

25 the Seralini article?

1 A That's correct.

2 Q Okay. All right. I want to follow
3 up on one thing -- one quick thing we -- we
4 discussed yesterday. You recall when we were
5 discussing the -- the mouse tumor in the Knezevich
6 and Hogan --

7 A Yes, I do.

8 Q -- study? Okay. And I asked whether
9 or not there had been any payments made to the
10 experts testifying at the SAP?

11 A Yes, you did. I remember you asking
12 that.

13 Q You said show me some documents, and
14 I said I didn't have any at the time, maybe I'll
15 have some for you tomorrow.

16 A I remember.

17 Q Okay. So I'm just going to follow up
18 with that. I'm handing you Exhibit 57. Take a
19 quick second to review this. Would these appear to
20 be invoices that were paid to people who testified
21 at the SAP on Monsanto's behalf?

22 A Just make sure I understand here to
23 review.

24 All right. So could -- could you
25 repeat your question --

1 Q Sure. These -- this document appears
2 to be invoices of various scientists that testified
3 at that SAP in 1986 on Monsanto's behalf?

4 A This -- this is showing -- these are
5 -- appear to be invoices submitted back to Monsanto
6 from a series of -- group of, what is this, three
7 scientists and they mention "Attendance at
8 Scientific Advisory Panel meeting EPA."

9 Q And these three scientists each
10 actually testified at the SAP hearing, didn't they?

11 A That is my understanding.

12 Q Okay. All right. Just wanted to
13 close that loop because of something we talked
14 about yesterday.

15 A Sure. And this is -- this is a
16 standard practice when you have a scientist engage
17 on something like that, to compensate them for
18 their time.

19 Q I thought it was too, but yesterday
20 when I asked you about it, you seemed to suggest
21 that you didn't know, and so I just wanted to show
22 you that --

23 A Yeah, I did not recall the -- the
24 specific records behind that, but that is a
25 standard practice when --

1 Q Okay.

2 A -- when someone is consulting for you
3 or using their professional time, they get
4 compensated.

5 Q Sure. And this was, you know, part
6 of that discussion we saw in Monsanto, the Monsanto
7 memo about, you know, bringing a bunch of experts
8 to the SAP panel; correct?

9 A Yes, and they have been compensated
10 for their time, as would any professional.

11 Q Okay. Great. So this is the
12 causation sort of chart we have been looking at
13 throughout the deposition, is Exhibit 2.

14 A Mm-hmm.

15 Q And we have gone through the Seralini
16 story, we've gone through -- and I'll just put it
17 on here for -- for completeness. Well, let's talk
18 -- we -- first we talked about Knezevich and Hogan;
19 right?

20 A That's right.

21 Q How do you spell Knezevich?

22 A K -- oh. K-n-e-z-e-v-i-c-h.

23 Q Good man. That was 1983; correct?

24 A Yes, that is correct.

25 Q Okay. We also discussed Seralini;

1 right?

2 A Yes, we did.

3 Q And I'm going to do 2012/2014,
4 reflecting both publications; okay?

5 A 2012 was a publication but retracted,
6 the other one was not peer reviewed. So I don't
7 know how that would be considered in the
8 literature.

9 Q Okay. So I'm going to put them down
10 because we have, we've talked about both of them;
11 okay?

12 A We discussed both; one retracted, one
13 republished without peer review.

14 Q Okay. All right. And finally,
15 there's this last area of cell studies and I'm
16 actually not going to ask you many questions about
17 that. There's -- but you would agree there's been
18 hundreds of studies?

19 A Yes, that's correct.

20 Q And some of them have been done by
21 Monsanto; right?

22 A Some have been done by Monsanto.

23 Q And some have been done by
24 independent researchers?

25 A That's correct, outside of the

1 industry.

2 Q Some have been published and subject
3 to the peer review process; right?

4 A That's correct.

5 Q And then some have been sort of
6 regulatory studies that have been submitted to
7 regulatory authorities and subject to that peer
8 review but not public peer review; correct?

9 A Monsanto's have been done -- have
10 done both.

11 Q Yeah, exactly.

12 A And then industry studies have both
13 -- have both EPA review and peer review.

14 Q Exactly. And, you know, recently
15 there was a -- an article published by Dr. Charles
16 Benbrook. You're familiar with that?

17 A I believe I am.

18 Q It actually came out like -- like
19 last week or something; right?

20 A I believe so.

21 Q And you reviewed it; right?

22 A I've gone -- I've been able to skim
23 through it and get the general understanding. Do
24 you have a copy if you want to discuss it? Or --

25 Q No, we're not going to get into any

1 detail. I just want to confirm that you've seen it
2 and that -- that's basically it. But a -- so
3 you've had a chance to look at that; right?

4 A Yes.

5 Q Okay. And, you know, you would agree
6 that there are many cell studies that did show --
7 that were positive for genotoxicity; right?

8 A Typically those involve studies where
9 they have somehow outright killed the cells and as
10 those cells decompose, they misinterpret those --
11 that decomposition as evidence of genetic damage,
12 but it is not true evidence of genetic damage.

13 Q Okay. So all those positive studies
14 that show genotoxicity, it's your opinion and
15 Monsanto's position that they are not reliable
16 studies; is that right?

17 A Typically --

18 MR. BRENZA: Assumes matters not in
19 evidence.

20 A Typically, that's what I have
21 observed is that when they -- they treat the -- the
22 cells in a way that outright kills them and that as
23 those cells decompose, that decomposition is
24 misinterpreted as genetic damage, but if there's
25 particular studies you'd like to discuss.

1 Q (BY MR. WISNER) I would -- if I go
2 through all those studies, we will literally be
3 here for a week. So I -- I'm not going to do that.
4 I just wanted to sort of make sure I understood
5 Monsanto's position with regards to it.

6 And that's why, and so, though, we've
7 talked about epidemiology, we've talked about
8 animal toxicology, and we obviously haven't talked
9 about all the cells that -- we haven't talked about
10 studies here but we've -- we've covered some of
11 them; right?

12 A Yeah, examples of them.

13 Q Okay. And notwithstanding the stuff
14 that we have covered, it's -- it's still Monsanto's
15 position that there's no evidence across the board;
16 right?

17 A Yes, our -- our position is that,
18 when you take all this data into account, you have
19 a very large body of evidence saying we fully
20 understand the carcinogenic potential of glyphosate
21 and Roundup-based herbicides, or glyphosate and
22 glyphosate-based herbicides, indicating there is no
23 carcinogenic potential.

24 There are additional studies that may
25 purport to have findings one way or the other but

1 when you look at those in particular, they often
2 have some sort of methodological flaw that prevents
3 either a conclusive outcome or a reliable source of
4 -- or from them being a reliable source of
5 information.

6 Q Okay. Monsanto, following the IARC
7 classification -- and just to be clear, you
8 understand the IARC has classified glyphosate as a
9 -- as a Class 2 probable human carcinogen; right?

10 A I do understand that. We believe
11 it's a deeply-flawed classification.

12 Q I understand that and that's, again,
13 why you don't believe there any evidence to support
14 it. I -- I get that.

15 But following the IARC
16 classification, Monsanto hired Intertek to prepare
17 a sort of expert panel review of what IARC did; do
18 you recall that?

19 A I do recall that.

20 Q And that was ultimately published in
21 a series of articles; correct?

22 A I do recall that.

23 Q Okay. And there was a couple of
24 scientists that we've been hearing about throughout
25 this deposition that were involved in that panel,

1 like, for example, Dr. Acquavella; right?

2 A That is correct.

3 Q Dr. Williams; correct?

4 A That's correct.

5 Q Dr. Kirkland?

6 A That's correct.

7 Q Dr. Kyre (phonetic)?

8 A That's correct.

9 Q Okay. And one of the primary points
10 of contact for Monsanto related to the Intertek
11 project was a person by the name of Ashley Roberts;
12 right?

13 A That's correct.

14 Q And Ashley Roberts was an employee of
15 Intertek?

16 A That is correct.

17 Q Also a scientist?

18 A That is my understanding, yes.

19 Q Okay. All right. I'm handing you
20 Exhibit 58. Why don't you take a look through that
21 and let me know when you're through -- actually,
22 before I do that -- hand that back. Exhibit 58,
23 the MONGLY number is MON --

24 MR. BRENZA: You got -- you got to
25 give it to me first.

1 MR. WISNER: Oh. The MONGLY number
2 is MONGLY00978170.

3 Q (BY MR. WISNER) Sir, I'm handing you
4 Exhibit 50 -- 58. Please take a look through that
5 and let me know when you're ready to discuss.

6 A All right, I'm ready.

7 Q All right. So this is a series of
8 emails that were between members of the Intertek
9 panel that were then forwarded to Dr. Heydens;
10 right?

11 A Yes, that's correct.

12 Q Okay. And we know that because at
13 the top, it -- it says to Dr. Heydens from Ashley
14 Roberts.

15 Do you see that?

16 A I do see that.

17 Q And this project with Intertek, that
18 was part of Monsanto's regular and ordinary course
19 of business; correct?

20 A That's correct.

21 Q All right. Now, before the actual
22 Intertek publications came out, the panel actually
23 gave presentations; right?

24 A That is correct -- I am aware of at
25 least one presentation, yes.

1 Q And in preparation for those
2 presentations, they create something called a
3 poster; right?

4 A That's correct.

5 Q That's sort of a -- sort of one-page
6 summary of the -- the panel's or the -- the -- the
7 present -- presenter's opinions; correct?

8 A Yeah, it's -- it essentially lays out
9 -- for anyone making a poster for a science
10 meeting, it essentially is a short form of maybe a
11 longer publication laid out in kind of a graphical
12 outline.

13 Q Okay. And this email exchange is --
14 appear to be discussing a poster for presentation;
15 correct?

16 A They do, yes.

17 Q All right. And if we look at the --
18 look at an email starting on page 2.

19 Do you see that?

20 A I do see that.

21 Q All right. And there's an email from
22 Ashley Roberts at Intertek; right?

23 A Yes.

24 Q And he writes, "Dear All, Please find
25 attached the final" -- just to be clear, Dr. Ashley

1 is male; correct?

2 A Yes, that's correct.

3 Q In case the jury thinks that I'm
4 referring to all doctors as men. He actually is a
5 male; right?

6 A That's correct.

7 Q And I've often made that mistake in
8 discussing Ashley Roberts, so all right.

9 "Dear All, Please find attached the
10 final version of the abstract that will be sent to
11 the Society for Risk Analysis Annual Meeting in
12 Arlington, Virginia December 6-10 for their poster
13 presentation session."

14 Do you see that?

15 A Yes, I do.

16 Q And so this is an email -- it's dated
17 November 2015 -- this is about three months, four
18 months after the publication of the IARC Monograph;
19 correct?

20 A Remember -- yeah, it's about four
21 months.

22 Q Yeah. Okay. "We are now looking for
23 a title for the abstract and was hoping that one of
24 the 2 versions below might fit the bill? Please
25 let me know if you like one of these titles and if

1 not if you could come up with an alternative
2 version."

3 Do you see that?

4 A Yes.

5 Q "We were thinking it could be
6 something like:" and then it looks like he proposes
7 two possible titles; right?

8 A Yes, he does.

9 Q The first one is "'Expert Panel
10 Review of the Carcinogenic Potential of the
11 Herbicide Glyphosate.'"

12 See that?

13 A Yes, I do see that.

14 Q And then, "or something a little more
15 provocative, like: 'An Expert Panel Concludes
16 there is No Evidence that Glyphosate is
17 Carcinogenic to Humans.'"

18 You see that?

19 A I do see that.

20 Q All right. And then you see a
21 response from Dr. Thomas Sorahan?

22 A Yes, I do see that.

23 Q And copied on that response is Dr.
24 Acquavella?

25 A Yes.

1 Q Dr. Garabrant?

2 A I do see that.

3 Q And Dr. Sorahan, he was actually
4 Monsanto's observer at the IARC Monograph program
5 -- sorry. I'll switch it again, I think it might
6 have blocked the audio.

7 So Dr. Sorahan, he was actually
8 Monsanto's observer at the IARC Monograph; right?

9 A That's correct.

10 Q On glyphosate?

11 A That's correct.

12 Q Okay. "Dear Ashley, I prefer the
13 first title. If something more provocative is
14 wanted, then I think the second title should have
15 'no convincing evidence.' We can't" -- well, okay.
16 He says, "We can't say 'no evidence' because that
17 means there is not a single scrap of evidence, and
18 I don't see how we can go that far."

19 You see that?

20 A I do see that.

21 Q Dr. Sorahan is -- is saying, you
22 can't say no evidence because that's going too far;
23 right?

24 A Well, I don't -- just simply the
25 words on the page, I don't --

1 Q Yeah. Okay.

2 A -- I can't interpret exactly what he
3 would say beyond that.

4 Q Dr. Garabrant, he says, "I agree with
5 Tom's suggestion."

6 Right?

7 A I do see that.

8 Q Okay. And then we have an email from
9 Dr. Acquavella.

10 You see that?

11 A I do see that.

12 Q Dr. Acquavella, he used to work at
13 Monsanto; we discussed that?

14 A That's correct.

15 Q In fact, to the best of your
16 knowledge, he's the only epidemiologist that you've
17 ever known to work at Monsanto?

18 A That's correct.

19 Q Okay. "Ashley: I agree as well that
20 you can't say there is no evidence. If you want
21 something more provocative, perhaps consider: An
22 expert panel's review disagrees with IARC's recent
23 classification of the herbicide glyphosate. I
24 think that is the gist of the abstract anyway."

25 You see that?

1 A I do see that.

2 Q So Dr. Acquavella is confirming that
3 you really can't say no evidence; right?

4 MR. BRENZA: Calls for speculation.

5 Beyond the scope.

6 A He is -- Dr. Acquavella is sharing
7 his opinion here.

8 Q (BY MR. WISNER) Yeah. And he says,
9 "you can't say there is no evidence."

10 That's what he says?

11 MR. BRENZA: Calls for speculation.

12 A Simply, we have the words on the page
13 that Dr. Acquavella wrote.

14 Q (BY MR. WISNER) Okay, great. And
15 then this was forwarded on to Dr. Heydens; right?

16 A That's correct.

17 Q Okay. So we have these three experts
18 that Monsanto has, you know, consulted with, a
19 former Monsanto employee, discussing this phrase,
20 "no evidence." Will Monsanto now change its
21 position that there is no evidence across the
22 board?

23 A We will not change our position.

24 These statements here, we would have to have more
25 information from these scientists to understand

1 what they literally meant and what they would
2 identify. But our position is, when you look
3 across all that data, you look at all the
4 epidemiology data, you look at all the animal data,
5 you look at all the cell data, there is nothing
6 there to indicate, when you look at all this stuff
7 together, when you look at the individual columns
8 of data, that glyphosate or glyphosate-based
9 herbicides can cause cancer.

10 Q And so when you say there is no
11 evidence, when Monsanto says there is no evidence,
12 the only way you can really get there is by
13 ignoring the positive evidence; right?

14 A We do not ignore it. We consider all
15 available information, just the way a regulatory
16 agency would.

17 Q Well, you consider all the positive
18 results and then find a way to say that they're
19 bad; right?

20 A We do not find a way to say they're
21 bad. We study those studies to understand them,
22 and then critique them using agreed --
23 internationally-agreed scientific principles.

24 Q Okay. Before we take a break --
25 because we're getting close to a short -- but I

1 want -- be very short because I want to get through
2 this -- I want to talk about another topic very
3 quickly.

4 And -- and you understand something
5 called peer review; right?

6 A Yes, I do.

7 Q Okay. And when we talk about peer
8 review, that's a process where scientists review a
9 publication before it gets published, make
10 comments, criticisms, and make recommendations
11 about that publication; correct?

12 A That's correct.

13 Q And you would agree that peer
14 reviewers shouldn't be people who have a conflict
15 of interest in assessing the study?

16 A That -- that policy would be up to
17 the individual journals.

18 Q Well, Monsanto thinks that they
19 shouldn't have a conflict of interest.

20 That's not fair; right?

21 A If there is a specific case, I'd be
22 happy to discuss it, but my knowledge is individual
23 journals have different standards about how they
24 choose peer reviewers.

25 Q All right. I'm handing you Exhibit

1 59. Please take a look at this and let me know
2 when you're ready to testify about it.

3 A All right, I'm ready.

4 Q All right. This is a series of email
5 exchanges within Monsanto; correct?

6 A It is.

7 Q And this was a document made in the
8 regular and ordinary course of Monsanto's business;
9 correct?

10 A That's correct.

11 Q All right. The first email on the
12 bottom is an email from, it appears to be, the
13 Editor-in-Chief of Cell Biology and Toxicology.

14 You see that?

15 A Yes, that's correct.

16 Q Okay. And this is sent to a Charles
17 Healy; correct?

18 A That's correct.

19 Q He is an employee of Monsanto; right?

20 A That's correct. He was at that time.

21 Q And it says "Subject: Manuscript
22 CBT0548 for review."

23 You see that?

24 A I do see that.

25 Q It reads, "Dr. Charles Healy, in your

1 view -- in view of your expertise I would be
2 grateful if you could review the following
3 manuscript which has been submitted to Cell Biology
4 and Toxicology."

5 Right?

6 A That's correct.

7 Q So this is a request from an
8 Editor-in-Chief to have someone conduct a peer
9 review?

10 A That's correct.

11 Q Okay. And we see the title of the
12 study is "Cytotoxicity of herbicide Roundup and its
13 active ingredient, glyphosate in rats."

14 You see that?

15 A That's correct.

16 Q So this is about glyphosate in
17 Roundup; right?

18 A That -- that appears to be so from
19 the title of the paper.

20 Q Okay, great. And then we see Dr.
21 Healy then sends this sort of email to Drs.
22 Saltmiras and Dr. Farmers (sic); correct?

23 A That's correct.

24 Q And it says, Dear Donna -- or it
25 says, "Donna and David, As we discussed (David) of

1 or per my voicemail (Donna), please see below on
2 the article I have been asked to review. You two
3 would be the reviewers in fact and I would then
4 collate your comments and be the reviewer of
5 record. Please let me know soon, Donna, if this
6 works for you given the relatively short turnaround
7 time (two weeks)."

8 You see that?

9 A I do see that.

10 Q So Dr. Healy -- I assume he's a
11 doctor; right?

12 A Yes, that is correct.

13 Q Okay.

14 A As he is identified here. He was on
15 our toxicology team.

16 Q Great. Dr. Healy is asking Dr.
17 Saltmiras and Dr. Farmer to help him prepare a
18 review for this manuscript; correct?

19 A I do see that.

[REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. The pattern suggests a binary matrix where each row represents a binary string. The bars are solid black and have thin white borders.

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, from very short segments to long horizontal lines. The pattern is somewhat repetitive, suggesting a structured data representation like a binary matrix or a sequence of binary strings.

The image consists of a grid of black horizontal bars of varying lengths and positions. The bars are arranged in rows, with some rows containing multiple bars. The lengths of the bars range from very short to nearly full-width. Some bars are positioned near the top or bottom of their respective rows, while others are centered. The overall pattern is abstract and lacks a clear, identifiable subject.

The image consists of a grid of horizontal black bars of varying lengths and positions. The bars are set against a white background. There are approximately 20 rows of bars. Some rows contain a single long bar, while others contain shorter bars or multiple bars. The lengths of the bars vary significantly, from very short segments to nearly full-width spans. The positions of the bars are irregular, creating a abstract pattern.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8 Q Okay. So I'm handing you Exhibit 62
9 to your deposition. Please take a look at it and
10 let me know when you're ready to discuss.

11 A All right, I'm ready.

12 Q Okay, great. Now, earlier in the
13 original email that kicked off this -- this
14 discussion, the original email to Dr. Healy -- if
15 you want to pull it up again, but I have it up on
16 the screen. On the -- after he -- if you want to
17 pull it up, I'll just -- so you can follow along, I
18 want to -- you happen to know what exhibit number
19 that is?

20 A 59.

21 Q All right. So in Exhibit 59, when
22 Dr. Healy is originally asked to review this, at
23 the very end of email, it says, "You are requested
24 to review the manuscript on a scale of 1 to 100.
25 Please note that 100 is the best score."

1 You see that?

2 A I do see that.

3 Q And that's a common practice, scaling
4 something on a 1 to 100 scale; right?

5 A I have no knowledge of that in a
6 journal. I've never seen that in a journal before.

7 Q Okay. So now we're -- we're at the
8 document that I handed you, I believe this is
9 Exhibit 62. And you agree this is an -- series of
10 email exchanges within Monsanto?

11 A That's correct.

12 Q Again, it's an email from Dr.
13 Saltmiras; right?

14 A That's correct.

15 Q And it's to Dr. Heal -- Dr. Healy?

16 A That's correct.

17 Q As well as Dr. Kronenberg?

18 A That's correct.

19 Q Okay. And Dr. Farmer?

20 A That's correct.

21 Q Okay. And the Subject is the "Peer
22 Review of Glyphosate Cytotoxicity submission to
23 Cell Biology & Toxicology"?

24 A That is correct.

25 Q All right. And Dr. Saltmiras says,

1 right, "All, reviewer comments submitted as
2 attached. Thanks to Donna for all your hard work.
3 David."

4 You see that?

5 A I do see that.

6 Q There is an attachment; right?

7 A There is an attachment.

8 Q And so we now have the actual review
9 submission.

10 Do you see that?

11 A I do see that.

12 Q And we have a statement here,
13 Original Submission; right?

14 A Yes, I do see that.

15 Q Charles Healy; right?

16 A That's correct.

17 Q Does not say anything about
18 Saltmiras?

19 A It does not mention them.

20 Q Doesn't say anything about Dr.
21 Farmer?

22 A No, it does not say that.

23 Q Okay. So you would agree with me
24 that Dr. Saltmiras and Dr. Farmer were ghost
25 authors on this review?

1 A No --

2 MR. BRENZA: Object to form.

3 A -- I would not agree with that.

4 Q (BY MR. WISNER) Well, they -- they
5 wrote it and now their names are not on.

6 It isn't that ghost writing?

7 MR. BRENZA: Vague.

8 A All we know is that they provided
9 information to Dr. Healy, who is also a
10 toxicologist on that same team, and then he chose
11 to do with it as he pleased.

12 Q (BY MR. WISNER) Let's be very clear
13 about what we know. The email from Dr. Saltmiras
14 is, "All, reviewer comments submitted as attached."

15 See that?

16 A I do see that.

17 Q All right. So Dr. Saltmiras is
18 giving Dr. Healy his review.

19 A It is unclear as to whether this is
20 simply a document that he's sharing that he already
21 had from Dr. Healy and adding Dr. Healy as a
22 recipient, so he knows this is going out to the
23 team. Or what's going on here. We have nothing to
24 indicate that Dr. Healy provided no oversight of
25 this.

1 Q Okay. What we do know for sure is
2 that the overall rating that the Monsanto Company
3 gave this article that it was peer reviewing was a
4 5 out of 100.

5 Do you see that?

6 A I do see that. And that's based on
7 the analysis here, looking at the science. And
8 clearly indicating that the authors of that paper
9 were completely unfamiliar with the science about
10 glyphosate and Roundup.

11 Q I understand that. They gave it a 5
12 out of 100; right?

13 A Based on the review of the article,
14 they gave it a 5 out of 100 because the authors
15 appeared to have no knowledge of glyphosate or
16 Roundup.

17 Q And this was after Monsanto knew that
18 it was the deciding vote.

19 A I would disagree with that
20 characterization. This is a scientific review of a
21 scientific article. They gave it a score based on
22 their review of the paper, indicating that the
23 authors had no knowledge of glyphosate or Roundup.

24 Q Sir, I'm characterizing nothing.

25 These are facts. The previous exhibit is dated

1 September 9th. Dr. Healy says, "Looks like ours
2 will be the deciding vote."

3 Right?

4 A He says that, but it's not a word
5 from the actual journal editor.

6 Q And then, on September 12th, three
7 days later, when the review is submitted, Monsanto
8 gives this review of the paper a 5 out of 100.
9 That's factually correct; right?

10 A Monsan -- the --

11 MR. BRENZA: Beyond the scope.

12 A The authors assigned a score of 5 out
13 of 100.

14 Q (BY MR. WISNER) Okay. So what I
15 find interesting here is there was a recommendation
16 as well; right?

17 A The recommendation on the left-hand
18 side; is that correct?

19 Q Yeah. And Monsanto recommends
20 reject; right?

21 A Consistent with that score and
22 consistent with the scientific mis -- shortcomings
23 of this publication.

24 Q So Monsanto is --

25 A As you -- I'm sorry. As you -- as

1 you read this through, what you see is that the
2 authors of the original paper did not have a
3 significant amount of knowledge about glyphosate or
4 Roundup, compounds they were purporting to study in
5 a knowledgeable way.

6 Q So just to be clear, a proposed
7 manuscript talks about Roundup being more toxic
8 than glyphosate, recommends further studies of
9 Roundup in rats. Monsanto learns it's the deciding
10 vote in the peer review, and then gives it a 5 out
11 of 100 and recommends rejection.

12 That's all factually correct; right?

13 MR. BRENZA: Compound.

14 A I --

15 MR. BRENZA: Move to strike.

16 A I disagree with the way you're
17 stringing those facts together to paint a picture.
18 Monsanto scientists reviewed this paper. They said
19 it was not worthy of publication. The facts of the
20 matter right here, they're laying out the case for
21 why this is not reliable scientific evidence.

22 These authors do not understand
23 glyphosate or Roundup or have knowledge of these
24 products, as evidenced by all the information here.

25 Q (BY MR. WISNER) Okay. So you don't

1 like how I string together facts. I -- I guess I
2 understand that.

3 MR. BRENZA: Object --

4 Q (BY MR. WISNER) But at least you'll
5 agree with me on this; right? And that is, without
6 question, it is highly inappropriate for Monsanto
7 to be making the deciding vote about this
8 manuscript about a product that it's selling;
9 right?

10 MR. BRENZA: Beyond the scope.

11 A That is --

12 MR. BRENZA: Calls for speculation.

13 A That is a decision made at the
14 journal. That is not a decision made at Monsanto.
15 Our scientists reviewed this article, provided
16 their scientific input, noted the significant
17 shortcomings and made their recommendations.

18 Q (BY MR. WISNER) So provided you can
19 get away with it, no problem.

20 MR. BRENZA: Move to strike.

21 A Again, that is the opinion -- the
22 peer review process is the decision of the journal.
23 Monsanto scientists reviewed it at the request of
24 the journal, provided their scientific reasoning
25 for why this paper was not worthy of publication.

1 MR. WISNER: Okay. Thank you,
2 Doctor. Let's take a break.

3 THE WITNESS: All right.

4 THE VIDEOGRAPHER: We are going off
5 the record at 10:18 a.m.

6 (A recess was taken.)

7 THE VIDEOGRAPHER: We are back on the
8 record at 10:35 a.m.

9 Q (BY MR. WISNER) All right, Doctor.
10 You were aware, generally, that there was a trial
11 in San Francisco related to Roundup and
12 non-Hodgkin's lymphoma?

13 A Yes, I am aware.

14 Q And you are aware that in that case,
15 a jury awarded \$250 million in punitive damages?

16 MR. BRENZA: Beyond the scope.

17 Relevance. Move to strike.

18 A I -- I am -- am aware of the verdict,
19 but the specific dollar amounts, I am not prepared
20 to testify about.

21 Q (BY MR. WISNER) Okay. You're not
22 aware of how much money was awarded in that
23 verdict?

24 MR. BRENZA: Beyond the scope. Asked
25 and answered.

1 A Again, I'm aware of the verdict, but
2 I'm not aware of the dollar amounts involved.

3 Q (BY MR. WISNER) All right. And you
4 are aware that that verdict occurred in August last
5 year?

6 A That's correct.

7 Q Okay. And we're now in January of
8 2019; right?

9 A That's correct.

10 Q And you would agree, since that
11 award, there has been no change to the Roundup
12 labeling regarding whether or not Roundup causes
13 cancer?

14 MR. BRENZA: Beyond the scope.

15 A I am not here to testify about
16 aspects of the Roundup label.

17 Q (BY MR. WISNER) Sir, can you answer
18 my question?

19 A I -- I am not aware of any changes to
20 the label one way or the other. I am not here --
21 I've not been prepared on what is or is not on the
22 label.

23 Q Okay. But you are here to say that,
24 notwithstanding that verdict, it's still Monsanto's
25 position that there is no evidence that it causes

1 cancer; right?

2 A That is correct. We believe that
3 when you look at all the science, when you consider
4 each of the columns you -- you were discussing
5 earlier with epidemiology, with animal studies, and
6 with the cell studies, you look at each of those
7 separately or all together, we are not seeing
8 anything that would indicate glyphosate or
9 glyphosate-based herbicides cause cancer.

10 Q And you work in scientific outreach;
11 correct?

12 A That is correct.

13 Q And in your capacity in scientific
14 outreach, you have not gone out and told people
15 that you work with or people that are asking
16 questions about glyphosate that, hey, there's a
17 possibility that this causes cancer and you should
18 be aware of that?

19 You haven't been doing that; right?

20 A I did not do that because I don't
21 believe it's true.

[REDACTED]

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to very long. The pattern is somewhat random but suggests a structured data representation, possibly a binary matrix or a series of binary strings.

The image consists of a series of horizontal black bars of varying lengths and positions. The bars are arranged in a grid-like pattern, with some bars being significantly longer than others. There are also small vertical black marks interspersed among the horizontal bars. The overall effect is similar to a barcode or a stylized representation of data.

The image consists of a grid of black horizontal bars of varying lengths and positions on a white background. The bars are arranged in approximately 20 rows. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, from very short segments to nearly full-width lines. There are also small black vertical dashes scattered among the bars, particularly in the upper and middle sections. This pattern suggests a binary matrix, a barcode, or a specific type of encoded data representation.

A 2D bar chart with 20 categories on the x-axis and values on the y-axis. The bars are black.

Category	Value
0	~1.5
1	~1.5
2	~1.5
3	~1.5
4	~1.5
5	~1.5
6	~1.5
7	~1.5
8	~1.5
9	~1.5
10	~1.5
11	~1.5
12	~1.5
13	~1.5
14	~1.5
15	~1.5
16	~1.5
17	~1.5
18	~1.5
19	~1.5

1 record. Can we talk outside?

2 THE VIDEOGRAPHER: We are going off
3 the record at 10:41 a.m.

4 (A recess was taken.)

5 THE VIDEOGRAPHER: We are back on the
6 record at 10:46 a.m.

7 Q (BY MR. WISNER) So -- so, sir, I
8 just want to be clear, in your personal capacity,
9 so not -- not speaking on behalf of Monsanto, have
10 you observed any change in the way you conduct your
11 business at Monsanto since August of 2012 -- '18?

12 A Are -- are you referring to the way I
13 do my particular job?

14 Q Mm-hmm.

15 A I actually have a new job since that
16 time.

17 Q Okay. Well, before -- when did you
18 get promoted?

19 A That was November.

20 Q Okay. So between August and
21 November, did you see any change in your old job?

22 A In the way I was doing -- in -- in my
23 day-to-day role, no, I did not.

[REDACTED]

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. This pattern suggests a binary matrix where some columns are active (represented by a long bar) and others are inactive (represented by a short bar or absence). There are no vertical bars or other graphical elements.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, from very short segments to nearly full-width lines. This pattern suggests a binary matrix where '1's are represented by bars and '0's by the absence of bars. There are no discernible text or other graphical elements.

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

14 Q (BY MR. WISNER) All right, sir. I'd
15 like to show you some additional documents. Are
16 you familiar with something called Freedom to
17 Operate?

18 A I have heard that term previously,
19 yes.

20 Q What is your understanding of that
21 term?

22 A My understanding is people in the
23 company tend to have different definitions of it.
24 When I personally have -- so Monsanto does not have
25 a definition, so I'd be speaking on my personal

1 understanding of it. I often use it -- I was in
2 the regulatory organization, and so our job was to
3 conduct safety studies, submit the data to
4 regulators, answer those questions, and obtain
5 approvals for those products based on those safety
6 evaluations.

7 It was also my -- I have also used it
8 to discuss sharing scientific information. You
9 know, that can be with the public, that can be with
10 a scientist, that can be with farmer customers,
11 anyone who is interested, so that they understand
12 both the safety and the benefits of our products.

A 12x12 grid of black bars representing a correlation matrix. The bars are arranged in a symmetric pattern, with the main diagonal being a single long bar. The off-diagonal elements are shorter bars of varying lengths, indicating the strength of the correlation between different pairs of variables.

The image consists of a grid of black horizontal bars of varying lengths and positions on a white background. The bars are arranged in approximately 20 rows. Some rows contain a single bar, while others contain multiple bars. The lengths of the bars vary significantly, from very short segments to long, nearly full-width lines. The vertical positions of the bars also differ, with some appearing near the top or bottom of the frame and others in the middle. The overall effect is a minimalist, abstract pattern of black shapes against a white space.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED] [REDACTED]

[REDACTED]

The image consists of a grid of black bars on a white background. The bars are arranged in a regular pattern of horizontal and vertical lines. The horizontal bars are longer than the vertical bars. There are small gaps between the bars, both horizontally and vertically. The grid is composed of many individual bars, creating a sense of depth and texture.

The image consists of a grid of black bars on a white background. The bars are arranged in a regular pattern, creating a series of horizontal and vertical lines. The bars are of varying lengths, some being short segments and others being longer, continuous lines. The overall effect is a minimalist, abstract graphic design.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single short bar at the beginning, while others have multiple bars of different lengths. The lengths of the bars vary significantly, from very short segments to long, nearly full-width lines. This pattern suggests a binary matrix where some columns are entirely zero, while others contain sparse or dense patterns of ones.

The image consists of a grid of black horizontal bars of varying lengths and positions. The bars are arranged in rows, with some rows containing multiple bars. The lengths of the bars vary significantly, from very short segments to long, continuous lines. The positions of the bars are not uniform, creating a sense of visual noise or abstract data representation.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single long bar, while others have multiple shorter bars. The lengths of the bars vary significantly, from very short to nearly full-width. There are also small black squares scattered among the bars, particularly in the upper half of the grid.

[REDACTED]

[REDACTED] [REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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The image consists of a grid of black bars of varying lengths and positions on a white background. The bars are arranged in rows and columns, creating a pattern that suggests a binary matrix or a series of binary strings. The lengths of the bars vary, and they are positioned at different points along the horizontal axis. Some bars are long and extend across many columns, while others are short and appear only in certain columns. The overall effect is a dense, abstract representation of binary data.

The image consists of a grid of black horizontal bars of varying lengths and positions. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars also vary significantly, from very short to very long. The grid is set against a plain white background.

23 MR. BEROUKHIM: Can we just have one
24 minute? I want to -- I want to just talk to Lin
25 for one second.

1 MR. WISNER: About this document?

2 MR. BEROUKHM: Yeah.

3 MR. WISNER: You're taking a break in
4 the middle of my deposition?

5 MR. BEROUKHM: Just want to ask him
6 one question about this document.

7 MR. WISNER: But you're not going to
8 take the witness out?

9 MR. BEROUKHM: No.

10 MR. WISNER: Okay. We can go off the
11 record.

12 THE VIDEOGRAPHER: We are going off
13 the record at 11:02 a.m.

14 (A recess was taken.)

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

The image consists of a grid of black bars on a white background. The bars are arranged in a regular pattern, creating a series of horizontal and vertical lines. The bars are of varying lengths, some being full-width or full-height while others are shorter segments. The overall effect is a digital or abstract representation of a barcode or a specific data visualization.

1 [REDACTED]

22 (A recess was taken.)

23 THE VIDEOGRAPHER: We are back on the

24 record at 11:12 a.m.

25 Q (BY MR. WISNER) Thank you, Doctor.

1 A Sure.

2 Q Before we -- before -- or if -- we
3 might not talk about this document at all, but my
4 first question to you is: What is your knowledge
5 of Sustainalytics?

6 A It's -- it's really comprised of what
7 have they have in this report, the statement up
8 here about who they are, that they are -- they
9 collect information and provide it to investors.

10 Q Okay. Have you ever had any
11 interaction with them?

12 A No, I have not.

13 Q Okay. How -- how do you know about
14 it?

15 A I've -- I've heard the name before
16 online. It's -- as I was saying, Sustainalytics,
17 I've seen this around.

18 Q Okay.

19 A But as part of my -- as part of my
20 day-to-day job, no.

21 Q Okay. You've never come across it
22 while you were at Monsanto?

23 A That's correct.

24 Q All right. And just to be clear,
25 Sustainalytics, this company is not within

1 Monsanto?

2 A They are not, no.

3 Q Are they hired by Monsanto?

4 Do you know?

5 A Not to my knowledge, no.

[REDACTED]

This image shows a large grid of black horizontal bars on a white background. The bars are arranged in rows and columns, creating a pattern of black rectangles. The grid is composed of many individual bars of varying lengths, some of which overlap or are positioned side-by-side. The overall effect is one of a heavily redacted or obscured document.

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED] [REDACTED]

[REDACTED]

8 THE VIDEOGRAPHER: We are going off
9 the record at 11:14 a.m.

10 (A recess was taken.)

11 THE VIDEOGRAPHER: We are back on the
12 record at 11:18 a.m.

[REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

20 Q All right. I want to move on to some
21 other topics; okay? And specifically, a little bit
22 about the way -- well, let me ask you: Are you
23 able to testify about Monsanto's interactions with
24 the EPA in this deposition?

25 A Generally, related to our regulatory

1 filings about the potential to cause cancer.

2 Q Okay. So if it was about labeling
3 issues, you do not have --

4 A That is correct.

5 Q -- the ground to talk about that?

6 A I -- I do not, that is correct.

7 Q Okay. So I have a series of
8 documents that specifically relate to
9 communications with -- between Monsanto and the EPA
10 relating to protective gear to be required on the
11 labels for Roundup.

12 Is that something you're not here to
13 testify about?

14 A Yeah, as it relates to the label, no,
15 I am not.

16 Q Okay. That got shorter.

17 MR. BEROUKHM: Music to my ears.

18 Q (BY MR. WISNER) All right. That
19 said, on a different topic, are you prepared and
20 capable of talking about Monsanto studies that
21 relate to exposures?

22 A The -- can you give an example just
23 to make sure I understand --

24 Q Well, Monsanto does --

25 A -- just generally?

1 Q Yeah, sure. Monsanto does studies to
2 study exposure levels of people who are using their
3 products and they submit those regulatory.

4 A Yes, that I am.

5 Q And so you can talk about that?

6 A Yes.

7 Q Okay. Well, let's talk about that,
8 then. All right. I am handing you -- actually,
9 before I do that, I want to do one thing. I -- I
10 am marking as Exhibit 66 -- and this is sort of
11 capping off our discussion about causation; okay?

12 It's Exhibit 66. And I've put
13 together -- well, I'll be honest, my -- my much
14 more apt drawing friend put together this -- this
15 little chart. And the question at the top, as you
16 can see, is: "Is Roundup glyphosate a cancer
17 causer?"

18 See that?

19 A I do see that.

20 Q Okay. And we have here -- and I've
21 envisioned this as really -- as really sort of
22 we're walking down a hallway; okay? And at the end
23 of that hallway are two doors; okay?

24 A Yes.

25 Q And behind that door is the truth;

1 okay?

2 A Okay.

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

5 Q (BY MR. WISNER) And here we have --
6 and here we have -- we have two doors; okay? On
7 the left side, we have the door of doing more
8 studies.

9 Do you see that?

10 A I see those words, yes.

11 Q And then on the right side, we have a
12 door that says, stop. Do nothing. Look no
13 further.

14 Do you see that?

15 A I see those words.

16 Q Okay. So my question for you, sir,
17 as the representative for Monsanto, which door are
18 you picking?

19 MR. BRENZA: Beyond the scope.

20 Vague. Hypothetical.

21 A I don't -- I don't see anything about
22 what we've done depicted there.

23 Q (BY MR. WISNER) Sir, I asked you
24 which door are you picking. Are you going to pick
25 this -- the door that allows you to do more studies

1 to get to the truth? Or are you picking the door
2 that's barred up?

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

5 A Monsanto's position is that we have
6 done all the studies we need to understand the
7 safety profiles of these products. We have
8 addressed the open scientific literature. We
9 investigate those studies as necessary to -- to
10 have an understanding of their accuracy and
11 reliability.

12 We have hundreds of studies that we
13 use in our safety assessments around the world to
14 work with regulators, for them to understand and
15 make a decision about whether or not these products
16 can be used safely. We believe we have the answer
17 to that question. And the answer is, yes, they can
18 be used safely.

19 Q (BY MR. WISNER) So I know you said a
20 lot of words just now, and -- and maybe you
21 answered my question; I don't know. But from what
22 I gathered, you're picking that door; right?

23 MR. BRENZA: Asked and answered.

24 Mischaracterizes testimony.

25 A That is -- that is not what I said.

1 I was not picking a door because I don't believe
2 that represents an accurate representation of -- of
3 what we do or what our choices are.

4 Q (BY MR. WISNER) Okay. So you're not
5 doing any more studies; right?

6 A Again, I don't believe the -- the
7 situation you have set up there reflects reality or
8 any of our decisions.

9 Q You haven't done an animal
10 carcinogenicity study on glyphosate since 1991;
11 right?

12 A We have done three studies. The last
13 one was in 1991. That was found by another 11 by
14 other registrants.

15 Q And that was almost 20 years ago?

16 MR. HOLLAND: 30.

17 Q (BY MR. WISNER) Oh, 30. Almost 30
18 years ago?

19 A And then, since that time, there have
20 been 11 additional studies reaching the same
21 conclusion, finding not relationship between
22 glyphosate and cancer in rodents.

23 Q And -- and you have never done -- and
24 you, I mean Monsanto. I know I keep talking about
25 Monsanto. But you, Monsanto, you've never done a

1 study on the formulated Roundup product, a
2 long-term animal study, to see if it causes cancer;
3 right?

4 A There are several reasons why we have
5 not conducted such -- such a study.

6 Q I didn't ask you for your reasons. I
7 asked you if you've done it or not.

8 MR. BRENZA: Beyond the scope.

9 A There are several reasons why we have
10 not conducted such a study.

11 Q (BY MR. WISNER) I didn't ask you for
12 those, sir. I asked you, are you going to do them
13 -- you haven't done it or not? It's a yes or no
14 question.

15 A There are several reasons why we
16 haven't done that study. I have a full reasoning
17 if you would like to hear it. Otherwise, I believe
18 that this exhibit does not represent reality.

19 Q Okay. So you're not going to give me
20 a straight yes or no answer? I mean, the jury is
21 watching. Yes or no? You guys haven't done the
22 study on Roundup; right?

23 A Would I like to be able to provide
24 our full reasoning for that, otherwise, I believe
25 this exhibit does not represent reality.

1 Q You have a fine lawyer sitting right
2 there and I'm sure he's going to ask you a lot of
3 questions when I'm done. But the way this works is
4 you got to answer my question first. And that's --
5 that's the process, sir. So can you give me a
6 straight answer?

7 Isn't it true Monsanto has not done a
8 long-term animal carcinogenicity study on Roundup;
9 correct?

10 A Would I like to be able to provide a
11 full amount of information on that in order to have
12 an accurate answer, and I don't believe that what
13 you have there represents reality.

14 Q So, no, you won't answer my question?

15 MR. BRENZA: Asked and answered.

16 A Again, I would like to provide our
17 reasoning for decisions we have made, but I do not
18 believe that what you have there represents
19 reality.

20 Q (BY MR. WISNER) Don't you think this
21 jury has a right to a straight answer from you,
22 sir?

23 A I would like to be able to provide
24 our reasoning --

25 Q I understand.

1 A -- but I do not believe -- short of
2 that, I do not believe that exhibit represents
3 reality.

4 Q Okay. I understand that you don't
5 like this exhibit. I can tell. You clearly don't
6 like it. I get it. But I'm asking you to give me
7 a straight answer. I'm asking you to give this
8 jury a straight answer. And it's a yes or no
9 question. And if you can't give it to me, fine.

10 But the question is quite simply:
11 Isn't it true that Monsanto has never done a
12 long-term animal carcinogenicity study on the
13 Roundup product?

14 A We have --

15 MR. BRENZA: Asked and answered.

16 A Again, we have -- I would like to be
17 able to provide our reasoning for that as part of
18 the answer, but short of that, this exhibit does
19 not represent reality.

20 Q (BY MR. WISNER) Okay. I know you
21 refuse to answer the question of which door you're
22 going to answer -- door you're going to walk
23 through, so I'll just ask you one last time and see
24 if you can give us an answer on that question.

25 Fair to say that you're picking the

1 stop/do nothing door; right?

2 MR. BRENZA: Asked and answered.

3 A Again, this exhibit does not
4 represent reality; it does not represent the
5 choices that we make.

[REDACTED]

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single short bar near the left edge. Other rows have longer bars that span most of the width of the grid. There are also rows where the long bar is broken into two segments by a small gap. The pattern repeats across the grid, suggesting a structured data representation like a binary matrix or a sequence of binary strings.

The image consists of a grid of black bars on a white background. It features 20 horizontal rows and 20 vertical columns, creating a total of 400 individual bars. The bars are solid black and have varying widths. Some bars are very narrow, while others are quite wide, filling most of the horizontal space. The vertical columns are also of different widths, with some being significantly thicker than others. The overall pattern creates a sense of depth and texture, resembling a barcode or a stylized representation of data storage.

The image consists of a vertical column of 20 horizontal black bars. Each bar has a thin white border. The bars are positioned at different heights from the bottom of the frame. The lengths of the bars also vary, with some being relatively short and others extending almost to the top of the frame. There is no discernible pattern or sequence to their placement.

A vertical column of 20 horizontal black bars of varying lengths. The bars are arranged from top to bottom, with each bar's length being approximately half the height of the page. The lengths of the bars are as follows: 1st bar: ~85%, 2nd bar: ~65%, 3rd bar: ~80%, 4th bar: ~60%, 5th bar: ~95%, 6th bar: ~85%, 7th bar: ~85%, 8th bar: ~75%, 9th bar: ~65%, 10th bar: ~80%, 11th bar: ~60%, 12th bar: ~90%, 13th bar: ~70%, 14th bar: ~55%, 15th bar: ~85%, 16th bar: ~65%, 17th bar: ~75%, 18th bar: ~50%, 19th bar: ~80%, 20th bar: ~60%.

1 [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED]
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[REDACTED]

The image consists of a grid of black horizontal bars of varying lengths and positions. The bars are arranged in rows, with some rows containing only one bar and others containing multiple bars. The lengths of the bars vary significantly, from very short segments to long, continuous lines. The positions of the bars are not uniform; some are centered within their respective rows, while others are shifted to the left or right. The overall effect is a abstract, digital pattern.

A vertical column of black horizontal bars of varying lengths. The bars are arranged in a descending staircase pattern, starting from the top with a short bar and ending at the bottom with a long bar. Each bar has a small black square at its left end.

The image consists of a vertical column of horizontal black bars. The bars vary in length and position. Some are single long bars, while others are shorter segments within a longer bar. There are also some very short, isolated bars. The pattern is irregular and does not form any readable text or standard barcode.

The image consists of a grid of black horizontal bars on a white background. There are approximately 20 rows of bars. Each row contains between 1 and 6 bars. The bars are of varying lengths, some being very short and others extending across most of the width of the grid. The positions of the bars are irregular, creating a sense of a random or abstract pattern. The overall effect is like a barcode or a series of binary code symbols.

The image consists of a grid of black horizontal bars on a white background. There are approximately 20 rows of bars. Each row contains between 1 and 6 bars. The bars are of varying lengths, some being very short and others extending across most of the width of the grid. The positions of the bars are irregular, creating a sense of a random or abstract pattern. The overall effect is like a barcode or a series of binary code symbols.

The image consists of a series of horizontal black bars of varying lengths and positions. The bars are arranged in a grid-like pattern, with some bars missing from certain rows. The lengths of the bars range from very short to nearly full width. Some bars are positioned near the top or bottom of their respective rows, while others are centered. The overall effect is a minimalist, abstract graphic.

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

10 Q Okay. I'm handing you another
11 document, Exhibit 68. Please let me know when
12 you're able and willing to discuss it.

13 A All right.

14 Q All right. So I've handed you a
15 document. It's an internal email within Monsanto;
16 correct?

17 A That is correct.

18 Q And attached to it is -- appears to
19 be a edited version of another exposure risk
20 assessment; right?

21 A Yes, that -- yeah, this -- the --
22 sorry. It -- it indicates there's been some
23 grammatical edits to it, yes.

24 Q Okay, great. And if you actually go
25 through it, you see, just here and there, little

1 tiny changes. It looks like they were red lined?

2 A That's correct.

3 Q Okay. And this document was created
4 obviously in the course of Monsanto's business;
5 right?

6 A That's correct.

7 Q Okay. This is dated in 2003; right?

8 A That's correct.

9 Q Okay. And, again, this is another
10 operator sort of risk exposure assessment. I don't
11 want to get into any much detail, I would just like
12 to draw your attention to the -- the last page of
13 the report before you get into all the sort of
14 addendums and attachments. And I believe it is on
15 page ending in 303.

16 Do you see that?

17 A Yes, I do.

18 Q There's a section that reads,
19 "Discussion and Conclusion."

20 You see that?

21 A Yes, I do.

22 Q Okay, great. And at the very bottom,
23 it says, "Based on the risk evaluation, the label
24 recommendations will be the following:"

25 And then it lists -- has, I guess,

1 two -- two bullet points.

2 You see that?

3 A Yes, I do see that.

4 Q Okay. And the first one says, "Wear
5 suitable protective gloves when handling the
6 concentrate and the diluted product."

7 Did I -- did I read that correctly?

8 MR. BRENZA: Beyond the scope.

9 A So those -- those words appear here
10 based on the risk evaluation and the label
11 recommendations would be the following.

12 Q (BY MR. WISNER) Okay, great. And
13 the next sentence says, "Wear suitable protective
14 clothing (water-proof jacket and trousers),
15 suitable gloves and rubber boots when using hand
16 held sprayers fitted with low volume hydraulic
17 nozzles and when using handheld rotary atomizers."

18 Do you see that?

19 A I see those --

20 MR. BRENZA: Beyond the scope.

21 A I see those words here on the page.

22 It -- I think the full context appears above it
23 about what they're -- the uses they're describing.

24 Q (BY MR. WISNER) Okay. Just to be
25 clear, sir, do you personally use Roundup?

1 A Yes, I do.

2 Q Okay. And I'm sure that's going to
3 be part of the -- the question and answer that you
4 have with your counsel when I -- when I turn you
5 over.

6 When is the last time you sprayed it?

7 A Well, being January now, the last
8 time would have been September, maybe October.

9 Q And before you sprayed it, I assume
10 you read the label; right?

11 A Yes, I did.

12 Q Okay. So you'd recognize a copy of
13 -- of a Roundup label if you saw it; right?

14 A Again, I am not here prepared to
15 testify about what the label does or does not say
16 on behalf of the company.

17 Q I understand, and I'm not going to
18 ask you any questions on behalf of the company.
19 We're just talking about your personal use. I have
20 handed you Exhibit 69. This is a copy of a Roundup
21 label; right?

22 A It --

23 MR. BRENZA: Beyond the scope.

24 A -- appears to be so, but I'm not
25 familiar with this product.

1 Q (BY MR. WISNER) Okay. You're not
2 familiar with the Roundup PRO Concentrate?

3 A Well, Roundup PRO Concentrate I don't
4 believe is available to the commercial buyers.
5 I've never seen that in my store.

6 Q Oh, okay. Well, in any event, so
7 this looks like, then, it's for sort of the more
8 occupational users; right? Not the sort of lawn
9 and garden people?

10 A So it's --

11 MR. BRENTA: Beyond the scope.

12 A -- at that point, you're outside my
13 knowledge on this product.

14 Q (BY MR. WISNER) Well, I -- that's --
15 I -- I -- I swear to God, thought you just said
16 that. Maybe I misunderstood.

17 A No, what I'm saying is I've never
18 seen this -- and I see the word PRO, and so I just
19 -- I don't know.

20 Q Okay. All right. Well, I just
21 wanted to draw your attention to the portion of
22 this that mentions protective PPE.

23 A Okay. It does say, "Complete
24 broad-spectrum postemergence professional
25 herbicide."

1 Q Okay.

2 A So, yeah, I -- this is not one I
3 would have been using at home.

4 Q All right. Fair enough. I
5 appreciate you clarifying that. And just if you
6 look at the last -- last page, right, there is a --
7 there is a Monsanto logo.

8 You see that?

9 A Oh, is -- oh, okay, we're in the
10 Spanish section. All right.

11 Q Oh.

12 A Yes. But, yes, I do see that.

13 Q Okay. And it -- it has a date on it,
14 it says copyright 2010; right?

15 A Yes, it does.

16 Q Okay. So then if we go to the -- the
17 front -- the front of the thing, there's a section
18 that says, PP -- or protective -- "Personal
19 Protective Equipment (PPE)."

20 You see that?

21 MR. BRENZA: Beyond the scope.

22 A And this is -- this is in my personal
23 capacity?

24 Q (BY MR. WISNER) Yeah.

25 A So I -- I don't work with labeling.

1 My job is not to understand labels or get them
2 approved. I've used -- I read labels when I use
3 them at home.

4 Q Yeah.

5 A This is not a product I've worked
6 with before.

7 Q I gotcha. So you -- you're reading
8 this like anybody, any juror member would be -- be
9 reading this label?

10 A So, again, this is a professional
11 product that I have no experience with.

12 Q Okay. So I am just saying you're not
13 reading it in the context of having any special
14 expertise. You're reading it as a regular guy who
15 would be using the product at home?

16 MR. BRENZA: Beyond the scope.

17 A Yeah, again, I -- I am not testifying
18 on behalf of the company. This is simply an
19 exercise, then, in reading a label.

20 Q (BY MR. WISNER) Okay. That's
21 exactly what it is because that's an exercise that
22 millions of consumers do every day; right?

23 MR. BRENZA: Beyond the scope. Calls
24 for speculation.

25 A I don't know how many people would

1 read a label on any given day.

2 Q (BY MR. WISNER) Okay. Well, it
3 says, "Personal Protective Equipment." And it
4 says, "Applicators and other handlers must wear:
5 long-sleeved shirt and long pants, shoes plus
6 socks."

7 You see that?

8 A I do see that.

9 MR. BRENZA: Beyond the scope.

10 Q (BY MR. WISNER) It says, "Follow
11 manufacturer's instructions for
12 cleaning/maintaining Personal Protective Equipment
13 (PPE). If there is no such instructions for
14 washables, use detergent and hot water. Keep and
15 wash PPE separately from other laundry."

16 Do you see that?

17 A I see those words on the page.

18 Q Okay, great. I just want to be
19 clear. In this section PPE, I -- I don't see any
20 discussion -- and you can tell me if I'm wrong --
21 but I don't see any discussion of any chemical
22 gloves, chemical-resistant gloves.

23 Do you see any?

24 MR. BRENZA: Beyond the scope.

25 A Again, speaking as myself and not on

1 behalf of the company, I do not see the word
2 "glove" appear in there.

3 Q (BY MR. WISNER) Great. And I don't
4 see any discussion of a face shield.

5 Do you see that in there?

6 A I do not see that in there, speaking
7 on behalf of myself.

8 Q Yeah. And on behalf of yourself,
9 again, just reading this label with me for the
10 first time, you don't see any discussion of a
11 chemical-resistant apron; right?

12 MR. BRENZA: Beyond the scope.

13 A Yeah, Again, speaking on behalf of
14 myself, I don't see those words in here.

15 Q (BY MR. WISNER) Okay. All right.
16 all right. I want to talk a little bit about
17 dermal absorption; is that something you would be
18 able to talk about; sir?

19 A Yes, I am.

20 Q Okay, great. I am handing a document
21 -- well, before I do that, what is, generally,
22 Monsanto's view of the dermal absorption rate of --
23 of Roundup?

24 A Typically, what we see is it's less
25 than 1 percent, and that the presence of a

1 surfactant really doesn't change that number.

2 Q Okay. I'm handing you document 70 to
3 your deposition. Please take a look at that and
4 let me know when you're ready to discuss.

5 Actually, you know what, I'll
6 withdraw that exhibit.

7 A Okay.

8 Q Or just put it aside. We're not
9 going to get any testimony about it.

10 A Okay.

11 Q It was one of the ones that I meant
12 to -- to cut down for today.

13 A Fair enough.

[REDACTED]

The image consists of a grid of black horizontal bars of varying lengths and positions on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. There are also small black vertical marks scattered among the bars, particularly in the upper half of the grid.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. The pattern is irregular, suggesting a random or encoded sequence of binary values.

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The image consists of a grid of black bars of varying lengths and positions on a white background. The bars are arranged in rows and columns. Some rows have a single long bar, while others have multiple shorter bars. The positions of the bars within each row vary, suggesting a specific pattern or code. The overall appearance is that of a binary matrix or a series of binary strings.

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. There are also some small, isolated black squares scattered among the bars.

A vertical column of 20 black horizontal bars of varying lengths. The bars are arranged from top to bottom, with their widths decreasing in a non-linear fashion. Some bars have small black squares or dots positioned near their left ends.

The image consists of a grid of horizontal black bars of varying lengths and positions. The bars are arranged in rows, with some rows containing multiple bars and others containing none. The lengths of the bars vary significantly, from very short segments to long, continuous lines. The positions of the bars are not uniform; they are placed at different intervals along the vertical axis. This pattern creates a visual effect similar to a barcode or a stylized text representation where letters are formed by the presence or absence of bars.

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, from very short segments to almost full-width lines. The pattern suggests a binary matrix where '1's are represented by bars and '0's by the absence of bars. There are several vertical columns of bars, with some columns having more bars than others. The overall effect is a digital or abstract representation of data.

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, creating a pattern of vertical and horizontal segments. The overall effect is reminiscent of a barcode or a binary matrix.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single long bar, while others have multiple shorter bars. The lengths of the bars vary significantly, from very short to nearly full-width. The pattern is irregular, suggesting a random or encoded binary sequence.

23 Q Okay. Well, let's actually go back

24 to Exhibit 70, then.

25 A Okay.

1 Q The one that I -- I wasn't going to
2 ask you about, but looks like I'm going to now.

3 You got it?

4 A I do have that.

5 Q All right. And you -- you reviewed
6 this earlier?

7 A Yes, I did.

8 Q This is a series of email exchanges
9 within Monsanto; right?

10 A That's correct.

11 Q And these emails were sent
12 specifically discussing absorption and recovery in
13 animal studies, particularly monkey studies; right?

14 A The -- the monkey studies are part of
15 it. And they're -- they're discussing available
16 data about -- about dermal absorption.

17 Q All right. And these -- these emails
18 were made in the regular source of Monsanto's
19 business; right?

20 A Yes, they were.

21 Q All right. And it's pretty
22 complicated, but I think that we should start off
23 with the -- the -- on page ending in 829, there's
24 an email from Christophe Gustine.

25 You see that?

1 A Yes, I do see that.

2 Q And on here, we have some people that
3 the jury is familiar with. We have Dr. Saltmiras
4 and Dr. Farmer.

5 Do you see that?

6 A I do see that.

7 Q All right. And the Subject is, "Pk
8 recovery Wester, et al."

9 Do you see that?

10 A I do see that.

11 Q And Wester, et al., that was --
12 that's referring to a dermal absorption study that
13 was conducted by Dr. Wester and his colleagues out
14 of the University of California?

15 A That is my understanding, yes.

16 Q Okay. So if you go down to the
17 middle of that paragraph, "The Wester
18 iv-experiment."

19 You see that?

20 A Oh, yes, I do see that.

21 Q Okay. And so what -- what we're
22 talking about here is there's two different ways
23 that they measured absorption and recovery. One is
24 when you administer the product via IV,
25 intravenously; right?

1 A Yes.

2 Q And --

3 A Injected into their arm.

4 Q Exactly. And then the other way --
5 and this is in monkeys -- the other way is you
6 actually apply it to their skin; right?

7 A That's correct.

8 Q And you would agree with me that
9 people in the regular world aren't injecting
10 glyphosate or Roundup into their bodies; right?

11 A That's correct.

12 Q Yeah. They're being exposed to it
13 via skin?

14 A Yeah, it's a question of is your --
15 is your study capable of answering the question
16 that's relevant to human health.

17 Q Great. And it says, the
18 "iv-experiment suggests that almost the entire
19 'systematically' available dose was excreted in the
20 urine. The low dose topical in vivo experiment
21 suggests that almost the entire dose (82 percent)
22 that was absorbed through the skin was excreted in
23 feces."

24 Do you see that?

25 A It says that. That's an incorrect

1 understanding of what goes on with glyphosate.

2 Q Okay. Dr. Christophe Gustine, he's a
3 -- he's a doctor; right?

4 A He is in our regulatory affairs
5 group, so he is not employed as a scientist by the
6 company.

7 Q Okay. But he is a doctor?

8 A I am not aware of what his precise
9 educational background is.

10 Q Okay. And he's saying right here
11 that most of it -- almost the entire dose was
12 actually absorbed through the skin and was excreted
13 through the feces; right?

14 MR. BRENZA: Asked and answered.

15 A So, again, what he's saying is he's
16 reporting the results of a study, but I can tell
17 you this is not a correct understanding of how
18 glyphosate is absorbed and moves through the body.

19 Q (BY MR. WISNER) Well, in that last
20 study we looked at, they only recovered 16 percent
21 of the dose; meaning 84 percent of it, we didn't
22 know -- we don't know where it went?

23 A They were not able to recover it.

24 Q Right. But they didn't look at the
25 feces; right?

1 A Not to my knowledge.

2 Q So, I mean, if they had, maybe they
3 would have seen the glyphosate?

4 A I do not believe --

5 MR. BRENZA: Speculation.

6 A -- they would.

7 Q (BY MR. WISNER) Okay. Guess we
8 don't know because they didn't actually measure the
9 feces, did they?

10 A In -- in that study 36 years ago,
11 they did not measure that.

12 Q Okay. So then Donna Farmer actually
13 responds to -- to -- to Christophe's Gustine's
14 email and she has a fairly lengthy discussion.

15 Do you see that?

16 A I do see that.

17 Q I want to talk about this paragraph
18 where she says, "I was also thinking."

19 Do you see?

20 A I do see that.

21 Q She says, "I was also thinking about
22 the cutaneous absorption and blood flow. In humans
23 the venous drainage for the skin around the" -- I
24 don't know what that is, umbilicus?

25 A That's correct.

1 Q -- "connects with veins that drain
2 directly into the portal vein and then directly
3 into the liver. Contrast to the IV, IM or IB --
4 IP... where veins from these areas take blood to
5 the heart, then it goes to the lung, then back to
6 the heart and out of the arterial system via the
7 aorta and is then distributed to the rest of the
8 body... liver, kidneys et cetera."

9 Do you see that?

10 A I do see that.

11 Q She says, "In the cutaneous exposure
12 could some glyphosate be absorbed directly into the
13 liver, excreted into the bile and therefore never
14 has a chance to circulate and get to the kidney?"

15 Do you see that?

16 A I do see that.

17 Q And so -- I mean, I don't want to
18 spend too much time on this because I want to get
19 out of here. What she's -- she's -- she's
20 hypothesizing about why there might be different,
21 you know, recoveries in -- in feces and urine;
22 right?

23 A Yes, she is. She is hypothesizing
24 that, perhaps, by applying this around there -- the
25 umbilicus is the belly button --

1 Q Mm-hmm.

2 A -- that because it's been applied
3 there, maybe there's some reason to believe there
4 might be a different movement that isn't accurate
5 for what you would see with arms or legs or other
6 parts of your body --

7 Q Exactly. And --

8 A -- that are not your belly button.

9 Q Okay. So the last thing I wanted to
10 talk about is on the first page of this email
11 exchange, there's an email from Joel Kronenberg.

12 Do you see that?

13 A I do see that.

14 Q And Dr. Kronenberg, he's -- is he a
15 doctor?

16 A Yes, he is. He is a PhD in
17 toxicology.

18 Q Great. And we have Dr. Saltmiras on
19 here; right?

20 A That's correct.

21 Q And Dr. Farmer; right?

22 A That's correct.

23 Q And he writes -- and this is 2008;
24 right?

25 A That's correct.

1 Q About 11 years ago?

2 A That's correct.

3 Q "To fully address this issue would
4 likely require a repeat of the monkey dermal and
5 intravenous studies. We no longer own the custom
6 designed monkey chairs that prevented exfoliated
7 abdominal skin from contaminating the excreta.
8 Additionally, it is not clear whether similar
9 chairs are used anymore by any researcher or if
10 they would even be allowed. Thus, conducting a new
11 series of monkey studies may not be easy nor
12 inexpensive."

13 Do you see that?

14 A I do see that.

15 Q And that's your understanding of
16 these -- these special monkey chairs don't exist
17 anymore?

18 A Based on what Dr. Kronenberg says
19 here, that's correct. Also this study is -- is no
20 longer -- no regulator asked for it, no regulator
21 allows it to be conducted. It's not part of a data
22 package anymore, so even doing it wouldn't answer a
23 question for them.

24 Q They don't prevent you from doing the
25 study, do they?

1 A It would not be able to inform a risk
2 assessment of any sort.

3 Q But it does -- but there's no law
4 saying you can't do the study; that's all I'm
5 asking?

6 A What I'm saying --

7 MR. BRENZA: Asked and answered.

8 A What I'm saying is it would not
9 perform any useful function even if you did it.

10 Q (BY MR. WISNER) Okay. "Furthermore,
11 it is not clear to me that such a study is
12 necessary and would be totally without risk."

13 Do you see that?

14 A I do see those words.

15 Q What's the risk of conducting a
16 study?

17 A It's -- it's contamination of the
18 excreta. That's the biggest challenge you would
19 have with a live animal study. That's why we've
20 gone to in vitro; you know, using actual skin, but
21 not with the live animal.

22 Q Okay. Why don't we take a short
23 break.

24 A Okay.

25 THE VIDEOGRAPHER: We are going off

1 the record at 12:04 p.m.

2 (A recess was taken.)

3 THE VIDEOGRAPHER: We are back on the
4 record at 12:42 p.m.

5 Q (BY MR. WISNER) All right, Doctor, I
6 want to talk to you about regulators --

7 A All right.

8 Q -- in -- in the -- in the States;
9 okay?

10 A Okay.

11 Q So I'm not going to talk about anyone
12 outside of the United States, just within the
13 United States; okay?

14 A Sure.

15 Q All right. I understand that there's
16 -- there's -- there's various different groups of
17 scientists and regulatory authorities that have
18 some interaction with Monsanto as it relates to the
19 safety of Roundup; is that fair?

20 A So just scientists and regulatory
21 agencies?

22 Q Yeah.

23 A Yes, that's correct.

24 Q And one of them -- and you mentioned
25 before, of course, is probably the most -- the

1 primary one federally is the EPA; is that right?

2 A That's correct.

3 Q Okay. So I'm going to -- I'm going
4 to put the EPA on here. I am --

5 MR. BEROUKHM: Is that 71?

6 MR. WISNER: Just give me a second.

7 I am marking this as Exhibit 73. Where you get 71
8 from? Yeah, we're on 73.

9 Q (BY MR. WISNER) And I'm going to put
10 the EPA over here; okay?

11 A Yes.

12 Q But there's also other -- other sort
13 of groups within the United States that --
14 regulatory groups that -- that assess or look at
15 Roundup; right?

16 A That look at Roundup? Could you be
17 more specific?

18 Q So, for example, you've heard of the
19 ATSDR?

20 A They -- so I wouldn't classify them
21 as a regulatory agency. They are a -- they are --
22 well, they act as an advisory capacity. They will
23 take a look at a substance and typically their
24 advice is meant for EPA.

25 Q Okay. But there is a -- it is a part

1 of the CDC; right?

2 A Yes, it is.

3 Q So it's part of the Centers of
4 Disease Control. And they -- they do look at the
5 toxicology and potential risks of products like --
6 like glyphosate?

7 A They -- they look at a range of
8 compounds.

9 Q Okay. So ATSDR. Do you know if, to
10 this day, ATS -- ATSDR has looked at whether or not
11 glyphosate or Roundup causes cancer?

12 A According to their website, they have
13 completed the report and it's undergoing peer
14 review.

15 Q Okay. So then we also have another
16 group called OSHA.

17 You've heard of them?

18 A Yes, I do.

19 Q And --

20 A Or I have. Sorry.

21 Q -- what is your understanding of
22 OSHA's interaction with -- related to Roundup?

23 A They are -- so that's the
24 Occupational Safety and Health Administration, and
25 their role is -- one of -- they have many roles.

1 One of them is overseeing Material Safety Data
2 Sheets.

3 Q Okay. And those are documents that
4 sort of outline the warnings or precautions related
5 to the use of Roundup in an occupational setting?

6 A They would -- their Material Safety
7 Data Sheet, in my experience, covers glyphosate,
8 the active ingredient, and then would cover the
9 surfactants individually.

10 Q Okay. And so that's OSHA; right?

11 A That's correct.

12 Q Okay. And the last one that -- and
13 maybe if there are some other ones you want to let
14 me know, please do. But the other one that I -- I
15 want to talk about is -- is California's EPA.

16 Are you familiar with California's
17 EPA?

18 A Yes, I used to work there.

19 Q As -- I was going to say, in fact,
20 you used to be employed by them; right?

21 A Yes, that's correct.

22 Q While you were there, did you know
23 Lauren Zeise?

24 A I knew the name, but I never met her.

25 Q And you know that Dr. Zeise, she

1 actually participated in the IARC Monograph; right?

2 A I do know that, yes.

3 Q Okay. And I think the -- the
4 organization is called OEHHA; right?

5 A OEHHA.

6 Q OEHHA?

7 A O-E-H-H-A.

8 Q O-E-H-H-A; right?

9 A That's correct.

10 Q And I'm just going to put under here
11 "Cal," so it's clear that this is not federal,
12 which these other ones are.

13 A That's correct.

14 Q Okay. All right. So I want to kind
15 of go through these generally speaking. Now,
16 within the EPA, there's actually more than just one
17 office; right? There's different programs?

18 A That's true.

19 Q There's the OPP?

20 A That's correct.

21 Q And there's also something called the
22 Office of Research and Development; right?

23 A That's correct.

24 Q Okay. And when you talk about the --
25 the -- the -- the office within the EPA that has

1 concluded that -- that Roundup is not a carcinogen,
2 you're talking about the OPP, the Office of
3 Pesticide Programs; right?

4 A That's correct.

5 Q All right. Okay. And then there's
6 also this group called the Office of Research and
7 Development and that's the ORD; right?

8 A That's correct.

9 Q Okay. All right. So I'm going to
10 keep coming back to this sort of framework just so
11 we can -- and I'll put a little like, you know,
12 thing so it's clear that this is under the EPA;
13 right?

14 A Yes.

15 Q Okay. All right. I'm handing you a
16 document, it's Exhibit 74 to your deposition.
17 Please take a look at it and you let me know when
18 you're ready to testify about it.

19 THE WITNESS: Thank you.

20 MR. BEROUKHM: Is this a MONGLY?

21 THE REPORTER: I'm sorry, I can't
22 hear you.

23 MR. WISNER: He's asking if this is a
24 MONGLY number and I am indicating I -- it is not.

25 A All right.

1 Q (BY MR. WISNER) Okay. So this is a
2 document that summarizes the ORD's comments on the
3 OPP's glyphosate cancer assessment.

4 Do you see that?

5 A I do see that.

6 Q It's dated December 14th, 2015.

7 A I do see that.

8 Q This is a document that you've seen
9 in your capacity at Monsanto; right?

10 A I may have. I've definitely seen the
11 content. This is familiar content to me.

12 Q Okay. And you understand that the --
13 the Office of Research/Development within the EPA
14 doesn't agree with the Office of Pesticide
15 Programs' assessment of glyphosate?

16 A That's not my understanding. My
17 understanding is that they were -- the Office of
18 Research and Development -- ORD -- had taken a look
19 at the Office of Pesticide Programs -- it was an
20 early report on -- I believe it -- yeah, it's the
21 CARC report, so this is a report that assessed
22 glyphosate, concluded it did not cause cancer.

23 ORD then did a review after it was
24 final and then said, you know -- and then they
25 walked through with comments about it, and then end

1 with some recommendations about having an SAP -- a
2 Science Advisory Panel -- review EPA's overall
3 conclusions.

4 Q Okay, great. And so the ORD says
5 here, "ORD scientists have reviewed OPP's
6 glyphosate cancer analysis and selection of cancer
7 descriptor."

8 Do you see that?

9 A I do see that.

10 Q And this selection of cancer
11 descriptor, that's a mechanism through which the --
12 the -- the O -- the Office of Pesticide Programs,
13 or OPP, gives it an assignment of a particular
14 characteristic?

15 A That's correct.

16 Q So it could be a known carcinogen,
17 for example?

18 A Yes, but in the case of glyphosate,
19 it's not.

20 Q Not likely to be carcinogenic?

21 A That's correct.

22 Q That was the -- the descriptor they
23 -- they were proposing?

24 A Yes, their lowest possible category.

25 Q Okay. And it says, "The reviewers

1 included two epidemiologists, a pathologist, and
2 several scientists with significant experience in
3 cancer risk assessment. With the exception of one
4 reviewer who participated in the recent IARC review
5 and two reviewers who participated in the CARC
6 review, an in-depth review of the original
7 literature was not undertaken."

8 Do you see that?

9 A That's correct.

10 Q Okay. So they had some scientists
11 take a look at the report and they're offering
12 their sort of summary opinions in this document?

13 A That's correct.

14 Q Okay. Go down to paragraph 3; right?

15 Do you see that?

16 A I do see that.

17 Q And then the second paragraph within
18 that, it's "ORD's epidemiologists."

19 Do you see that?

20 A I do see that.

21 Q And it reads, "ORD's epidemiologists
22 agree with IARC that there is 'limited evidence' of
23 carcinogenicity in humans and understand IARC's
24 definition of 'limited evidence' as 'a positive
25 association has been observed' for which a causal

1 association is 'credible, but chance, bias, or
2 confounding could not be ruled out with reasonable
3 confidence (IARC Preamble, section B6).'"

4 You see that?

5 A I do see that.

6 Q All right. And then it says, "OPP
7 preferred to dichotomize the epidemiology (sic)
8 evidence to be either 'causal' or 'not causal.'
9 This dichotomization appears to be the major factor
10 in the different positions between OPP and IARC
11 with regard to the epidemiological data."

12 Do you see that?

13 A I do see that.

14 Q And this is talking about, instead of
15 looking at all of the data sort of holistically,
16 they're accusing -- and I'm not saying that this is
17 true -- but they are saying that -- that -- the OPP
18 is really just saying yes/no for each study instead
19 of sort of looking at the whole picture.

20 MR. BRENZA: Leading. Beyond the
21 scope. Calls for speculation.

22 A I have the words here in front of me.
23 They're -- so the Office of Research and
24 Development is simply describing the ORD
25 epidemiologists look at data this way, and the

1 Office of Pesticide Programs looked at it in a way
2 that they describe differently from the way that
3 ORD did theirs -- did their review, I'm sorry.

4 Q (BY MR. WISNER) Okay. Then on
5 number 4 it says, "Glyphosate has been tested in
6 large number of 2-year rat and mice studies,
7 including several studies conducted in the same
8 strains."

9 You see that?

10 A I do see that.

11 Q It says, "A wide range of tumors have
12 been observed in these studies, including adenomas
13 and some carcinomas."

14 Do you see that?

15 A I do see that.

16 Q You agree with that; right?

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

19 A Yeah, I'd have to look at the
20 original report to understand -- just to make sure
21 I -- what their basis is for this, but I see those
22 words on the page.

23 Q (BY MR. WISNER) Okay. All right.

24 So if we go to number 5.

25 A Yes.

1 Q It says, "The ORD reviews noted that
2 the analysis of the cancer data in the assessment
3 was basically conducted on a study-by-study basis
4 instead of using a more inclusive, systematic
5 approach to provide an integrated analysis of the
6 data."

7 Do you see that?

8 A I do see that.

9 Q Okay. Did you agree that -- that the
10 -- the OPP was doing that or do you disagree?

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

13 A I can't -- I can't speak for why
14 Office of Research and Development is
15 characterizing the assessment this way. When
16 I've --

17 Q (BY MR. WISNER) oh --

18 A -- when I've read EPA risk
19 assessments, that's what I've seen, is they're
20 walking through looking at the body of data in a
21 very integrated manner. So I'm not sure what
22 they're referring to here.

23 Q Oh, fair enough. I'm not asking you
24 to interpret what ORD believes or thinks. I'm
25 asking, does Monsanto think that -- that that's

1 true or not, what's written there?

2 A In my reading of the cancer risk
3 assessment, both -- both the CARC, the reports that
4 are talking about here, as well as the later
5 updated-issue white paper where EPA also concluded
6 glyphosate is unlikely to cause -- unlikely to pose
7 a carcinogenic risk to humans, it is a very
8 systematic, thorough analysis of all the available
9 data.

10 Q Okay. So you think -- basically, you
11 don't agree with that; that's fair to say?

12 MR. BRENZA: Asked and answered.

13 A What I'm saying is, in my read of the
14 CARC report itself that they're talking about here,
15 as well as the EPA-issue paper on carcinogenicity
16 that cluded -- concluded glyphosate is unlikely to
17 pose a carcinogenic risk to humans, as I read
18 those, they appeared to be very thorough,
19 systematic reviews of the available data.

20 Q (BY MR. WISNER) All right. So the
21 number 6, it kind of discusses the various
22 descriptors available to the EPA for
23 classification.

24 Do you see that?

25 A That is correct.

1 Q This is what we were talking about
2 earlier. The highest one is "Carcinogenic to
3 humans."

4 You see that?

5 A I do see that.

6 Q You have "Likely to be carcinogenic
7 to humans."

8 Do you see that?

9 A I do.

10 Q Then you have "Suggestive evidence of
11 carcinogenic potential."

12 Do you see that?

13 A Yes, I do.

14 Q Then you say, an -- there's also
15 "Inadequate information to assess carcinogenic
16 potential"?

17 A Yes.

18 MR. BRENZA: Objection to form.

19 Q (BY MR. WISNER) Do you see that?

20 A I'm sorry, could you read it again?

21 I --

22 MR. WISNER: I don't know what the
23 objection was about.

24 MR. BRENZA: You said, "Then you
25 say," and --

1 MR. WISNER: I'm sorry, I rephrased
2 the question after I said that. I wasn't -- said
3 that.

4 Q (BY MR. WISNER) Then it says,
5 "Inadequate information to assess carcinogenic
6 potential."

7 Do you see that?

8 A I do see that.

9 Q Okay. And then it says, "Not likely
10 to be carcinogenic to humans."

11 You see that?

12 A I do see that.

13 Q Okay. So there's these five
14 different categories that the OPP could take. And
15 it looks like it took the -- the bottom one here,
16 not likely to be carcinogenic to humans; right?

17 A Yes, that's correct, the CARC report
18 classified it that way.

19 Q And you would agree that, IARC, for
20 example, would be higher, would be likely to be
21 carcinogenic to humans; right?

22 A I -- I would have to do a side by
23 side. One of the -- one of the challenges with
24 these verbal descriptors of evidence, it's -- it
25 can be very difficult to line them up and say which

1 one is which. EPA has concluded that glyphosate is
2 not likely to be carcinogenic to humans. IARC,
3 using their own scale, had what appears to be a
4 different conclusion.

5 Q Okay. Well, I mean, it kind of
6 discuss it as you keep going, right, the various
7 different possibilities. For example, turn to the
8 next page, it has that discussion, "Likely to be
9 carcinogenic."

10 You see?

11 A I do see that.

12 Q See, it says, "means that the 'weight
13 of the evidence is adequate to demonstrate
14 carcinogenic potential to humans,' giving as an
15 example, 'an agent demonstrating a plausible (but
16 not definitively causal) association between human
17 exposure and cancer, in most cases with some
18 supporting biological, experimental evidence,
19 though not necessarily carcinogenicity data from
20 animal experience -- experiments.'"

21 You see that?

22 A I do see that.

23 Q And that -- that's pretty close to
24 the probable human carcinogen moniker in IARC;
25 right?

1 MR. BRENZA: Beyond -- beyond the
2 scope. Calls for speculation.

3 A I -- I can't really speak to exactly
4 what the wording is at IARC. There would have to
5 be a side by side as to compare those words.

6 Q (BY MR. WISNER) All right. Then we
7 have suggestive evidence.

8 You see that?

9 A I do see that.

10 Q This "covers a spectrum of evidence
11 ranging from 'a positive cancer result in the only
12 study on an agent to a single positive result in an
13 extensive database that includes negative studies
14 in other species.'"

15 You see that?

16 A I do see that.

17 Q So this is saying you get suggested
18 even if you just have -- if you have one positive
19 study?

20 MR. BRENZA: Beyond the scope. Calls
21 for speculation.

22 A Yeah, they are -- they are describing
23 it there on the page apparently.

24 Q (BY MR. WISNER) Okay. And then
25 inadequate information is when "available data are

1 judged inadequate for the other descriptors."

2 You see that?

3 A I do see that.

4 Q "And for which 'additional studies
5 would be expected to provide further insights.'"

6 You see that?

7 A I do see that.

8 Q All right. And then, "examples for
9 when to use this descriptor range significantly
10 from 'little to no pertinent information,'
11 conflicting evidence (not to be confused with
12 differing results, where 'depending on the weight
13 of the evidence, differing results can be
14 considered either suggestive evidence or likely
15 evidence),' to 'negative results that are not
16 sufficiently robust for not likely.'"

17 See that?

18 A I do see that.

19 Q So it's talking about different
20 options for this inadequate category.

21 MR. BRENZA: Beyond the scope. Calls
22 for speculation.

23 A That appears to be what they're
24 doing. It's just -- they're saying it is
25 appropriate when, but I don't know if this is

1 actually quoted from like the cancer risk
2 assessment guidelines --

3 Q (BY MR. WISNER) All right.

4 A -- that OPP relies on.

5 Q So if we read the summary, reading on
6 the sentence "One might."

7 Do you see that?

8 A Yes, I do see that.

9 Q "One might classify glyphosate as
10 'likely' on the basis of experimental data alone,
11 by accepting positive trend tests at two anatomical
12 sites (despite differing results in other studies)
13 or by viewing these tumors (which are not -- which
14 not everybody accepts) as rare."

15 Do you see that?

16 A I do see that.

17 Q One level down, and then it talks
18 about suggestive evidence.

19 You see that?

20 A I do see that.

21 Q All right. And then it makes some
22 recommendations to -- to the OPP; right?

23 A Yes.

24 Q Okay.

25 A It talks about having a -- an SAP to

1 review OPP's conclusions --

2 Q Okay, great.

3 A -- an advisory panel that we had that
4 was in December 2016.

5 Q Okay, great. But to be clear, at
6 least we know from this third paragraph that ORD's
7 epidemiologists agree with IARC; correct?

8 MR. BRENZA: Beyond the scope. Calls
9 for speculation. Mischaracterizes the document.

10 A So I -- I see the words written here
11 on the page.

12 Q (BY MR. WISNER) Yeah.

13 Epidemiologists agree with IARC; right?

14 A Yeah, they point out that, you know,
15 the chance or bias or confounding cannot be ruled
16 out from the evidence they have.

17 Q That's right. They say "'positive
18 association has been observed' for which a causal
19 association is 'credible, but chance, bias, or
20 confounding could not be ruled out with reasonable
21 confidence.'"

22 That's what they say; right?

23 A Yes, they --

24 MR. BRENZA: Calls for --

25 THE WITNESS: I'm sorry.

1 MR. BRENZA: Beyond the scope. Calls
2 for speculation. Incomplete use of the document.

3 A Yeah, those are -- those words are in
4 that part of the sentence.

5 Q (BY MR. WISNER) Okay, great. So
6 going back to our exhibit here, we are in Exhibit
7 73. Under ORD, agrees with IARC.

8 A So I -- I'm not sure I would agree
9 with that characterization.

10 Q Oh, I understand that, but we just
11 read the document and the document speaks for
12 itself.

13 MR. BRENZA: No, allow the witness to
14 please complete his answer. You're -- you're
15 mischaracterizing what he said.

16 MR. WISNER: I -- I don't believe
17 I've actually asked a question. So if I could
18 finish answering -- I haven't asked a question. I
19 just wrote on my demonstrative literally almost
20 verbatim what was written in that document. So if
21 you want to clarify that later on redirect, you're
22 welcome to, but there is no question pending.

23 Q (BY MR. WISNER) All right. So I'm
24 handing you another document. And I -- I want to
25 talk a little bit about --

1 MR. BEROUKHM: Wait, hold -- hold
2 on.

3 MR. WISNER: Can I please continue
4 with my deposition? I -- I have been waiting for
5 you all day.

6 MR. BRENZA: Under ORD agrees with
7 IARC.

8 MR. WISNER: All right, I'm going to
9 continue.

10 Q (BY MR. WISNER) All right, sir.

11 MR. BRENZA: Yeah --

12 Q (BY MR. WISNER) I want to move on to
13 another section of this -- of this chart.

14 MR. BEROUKHM: Hold -- hold on, Lin
15 -- Lin wants to say something.

16 MR. BRENZA: Yeah, I think the
17 witness was answering a question when you -- when
18 you interrupted him.

19 MR. WISNER: I wasn't. And it's not
20 true, I wasn't asking a question --

21 MR. BRENZA: It's -- it's -- it's on
22 the transcript.

23 MR. WISNER: Well, the transcript's
24 incorrect because the video is very clear that I --

25 MR. BRENZA: It says, "Question:

1 Okay" --

2 MR. WISNER: -- I wrote down --

3 MR. BRENZA: -- "Okay, great. So
4 going back to our exhibit here, we are on Exhibit
5 73. Under ORD, agrees with IARC," question mark.

6 MR. WISNER: Okay. I didn't ask a
7 question. I was writing -- I was saying what I was
8 doing --

9 MR. BRENZA: And he said, "So I am
10 not sure I would agree with that."

11 MR. WISNER: All right. Lin, please
12 stop interrupting my deposition.

13 MR. BRENZA: I want --

14 MR. WISNER: If you want to go
15 back --

16 MR. BRENZA: No, no, I want the --

17 MR. WISNER: -- and clarify, you're
18 welcome to.

19 MR. BRENZA: -- I want the witness
20 to --

21 MR. WISNER: There was no question
22 pending, and if the court reporter put a question
23 mark after a declaratory statement, that is an
24 error in reporting and it will be corrected in an
25 errata.

1 Q (BY MR. WISNER) Let's continue on
2 with my deposition. All right. I want to move on
3 to the next one, the far right; okay? OEHHA under
4 -- in California; okay?

5 A I do see that.

6 Q Now, OEHHA, you've actually -- you've
7 actually worked at the California EPA; right?

8 A That's right.

9 Q And you understand there's something
10 called Proposition 65?

11 A I do understand that.

12 Q And under the Proposition 65
13 regulation, if IARC determines that a substance is
14 a probable or known human carcinogen, OEHHA and the
15 State of California has to also determine that it's
16 a human carcinogen; correct?

17 A That is correct. They are not
18 allowed additional scientific review. They simply
19 repeat what IARC says.

20 Q Okay. So let me be clear, so you
21 agree, then, it follows IARC?

22 A They do not do additional scientific
23 review. They simply repeat what IARC says.

24 Q All right. So your testimony is that
25 the California EPA OEHHA does not do any scientific

1 review?

2 A Following a determination that you're
3 describing from IARC, they do not do any subsequent
4 scientific review. They simply repeat what IARC
5 says.

6 Q Okay. Well, let's -- let's look. I
7 mean, let's look at what they did. So here's --
8 I'm handing you Exhibit -- are we at 74? No.

9 MR. WISNER: What was the last
10 exhibit?

11 MR. ALTIERI: We're on 75.

12 MR. WISNER: Okay. Thanks.

13 Q (BY MR. WISNER) Handing you Exhibit
14 75, sir. Please let me know when you're ready to
15 testify about it.

16 A All right. I'm ready.

17 Q Okay. This is California EPA's
18 Notice of Intent to List various pesticides,
19 including glyphosate; correct?

20 A I do see that.

21 Q And this is something -- so the
22 procedure in California is they make a Notice of
23 Intent to List called a NOIL; right? Or is it --

24 A N --

25 Q -- NIOL? Something like that?

1 A NIOL.

2 Q Okay.

3 A Or N -- I'm sorry, NOIL.

4 Q That's what I thought. All right.

5 So they -- they list this and then they give people
6 an opportunity to send in comments, criticisms,
7 concerns; right?

8 A They give people an opportunity to
9 comment, but if you look at the second page, "Under
10 this listing mechanism, OEHHA cannot consider
11 scientific arguments concerning the weight or
12 quality of the evidence considered by IARC when it
13 identified these chemicals and will not respond to
14 such comments if they are submitted."

15 Q Okay. So people submitting comments?

16 A They will not be considered unless
17 it's -- so if you read this opportunity for
18 comment, what it discusses is you may comment, but
19 it's simply, did IARC do this or not.

20 Q I understand.

21 A Science will not be part of the
22 decision.

23 Q I understand. That wasn't my
24 question. My question is: People are allowed to
25 submit comments; right?

1 A They are allowed to submit comments
2 merely repeating whether or not IARC said
3 something. Science will not be considered as part
4 of this process.

5 Q Okay. And then people would submit
6 comments; right?

7 A They would submit comments, but they
8 would not be allowed to have any comments on the
9 science. It would simply be whether or not IARC
10 had done this.

11 Q How -- did Monsanto submit a comment?

12 A We did submit comments, yes.

13 Q Scientific ones; right?

14 A Yes. And they were not considered.

15 Our comments -- Monsanto's comments were not
16 considered as part of this process.

17 Q Sir, I understand they weren't
18 considered. I'm just asking if you did it?

19 A We submitted comments based on
20 science, and OEHHA did not consider them because
21 OEHHA does not consider scientific input during a
22 listing procedure of this type.

23 Q Okay. We'll -- we'll get into some
24 more comments later. But I'm handing you Exhibit
25 76. Take look through this, let me know when

1 you're ready to discuss it.

2 A All right, I'm ready.

3 Q And just to be clear, that -- that
4 previous listing that we looked at, that was in
5 early September, I believe the date was September
6 4th, 2015; right?

7 A Yes, that is correct.

8 Q All right. So now we're looking at a
9 series of emails. The top portion of the emails
10 are emails within Monsanto's employees; right?

11 A There appear to be two Monsanto
12 employees on this list.

13 Q Okay, great. And obviously Mr. Gould
14 and -- and Mr. Hardy, these are people who are
15 working in the -- their capacity with Monsanto?

16 A They are -- these two people are
17 using their Monsanto email.

18 Q Okay, great. And if you look at the
19 beginning sort of the genesis of this email
20 exchange, at the very bottom, it's an email from a
21 guy named Frank.

22 Do you see that?

23 A I do see that.

24 Q And the Subject is "California EPA
25 Moves to Label Monsanto's Roundup 'Carcinogenic.'"

1 Do you see that?

2 A I do see that.

3 Q It's published in the East Bay
4 Express.

5 Do you see that?

6 A I see the web link.

7 Q That's a Bay Area publication?

8 A I am not familiar with the East Bay
9 Express. I -- I don't know if it's -- if it's
10 actually referring to what I understand to be the
11 East Bay, which is near San Francisco.

12 Q Fair enough. And have you ever lived
13 in California?

14 A I have.

15 Q Okay. When you were working at the
16 California EPA?

17 A That's correct.

18 Q And then you came back to St. Louis?

19 A That's correct.

20 Q Okay. Where in California did you
21 live?

22 A Davis and Woodland.

23 Q Okay. Did you start working for
24 Monsanto in California?

25 A No, I did not.

1 Q Okay. All right. And then so
2 there's a link here.

3 You see that, to a article?

4 A Yes, I do see that.

5 Q All right. And then it gets
6 forwarded to this guy named Mark -- Mike Parks at
7 Wilbur-Ellis.

8 Do you see that?

9 A I do see that.

10 Q And that's a distributor for Monsanto
11 in California and elsewhere?

12 A That is my understanding.

13 Q All right. And then it looks like it
14 gets forwarded again to Mr. Gould at -- at
15 Monsanto.

16 Do you see that?

17 A Yes, it -- okay. It's forwarded to
18 Mr. Gould, yes.

19 Q And it says, "I got this from Parks
20 yesterday. They are so full of crap."

21 Do you see that?

22 A Yes, from Greg Fernald --

23 Q Exactly.

24 A -- with Wilbur-Ellis. Okay.

25 Q All right. So then Mr. -- Mr. Gould

1 responds back to Frank, "He sent to me too. It's
2 hard to understand how against all science and law
3 the can do this. Steve Gould."

4 You see that?

5 A I do see those words.

6 Q And then Mr. Fernald responds; right?

7 A Yes, I see that above.

8 Q He says, quote, "We are being overrun
9 by liberals and morons...sort of like a zombie
10 movie, so we just have to start taking them out one
11 at a time, starting with the elections next year."

12 Do you see that?

13 A I do see those words.

14 Q Okay. And this was sent to Steve
15 Gould, an employee of Monsanto?

16 A Yes, it was.

17 Q All right. And I just want to be
18 clear, the -- "the elections next year," this is
19 September 2015, so it's referring to the elections
20 in 2016.

21 MR. BRENZA: Beyond the scope. Calls
22 for speculation.

23 A Yeah, this is -- this is a person who
24 does not work for our company who I've never met
25 making a statement and he would be the one who

1 could describe what he was discussing.

2 Q (BY MR. WISNER) Okay. Well, a year
3 from this date there was a presidential election;
4 correct?

5 A There -- there was a presidential
6 election in 2016. There was also -- there were
7 many elections in 2016.

8 Q That's right. And that presidential
9 election resulted in the election of Donald Trump
10 to run the United States?

11 MR. BRENZA: Beyond the scope.

12 A Yeah, Again, I -- I don't know what
13 election he -- specifically he's referring to.

14 Q (BY MR. WISNER) Fair enough, but
15 Donald Trump was elected in 2016; correct?

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

18 A Again, I don't know exactly what he's
19 referring to with "elections." It could also be
20 referring to the elections in California.

21 Q (BY MR. WISNER) And you understand
22 also that Donald Trump now, as the Executive Chief
23 Officer of the United States, he also technically
24 runs the EPA?

25 A I am aware of --

1 MR. BRENZA: Beyond the scope.

2 A So I'm aware that EPA is part of the
3 federal government.

4 Q (BY MR. WISNER) Okay. So then Steve
5 Gould forwards this email from Mr. Fernald.

6 Do you see that?

7 A I do see that.

8 Q And he says, "I like this analogy
9 from Greg."

10 Do you see that?

11 A I do see that.

12 Q Steve Gould, he -- he works in the --
13 the distribution in California; right?

14 A That is my understanding, yes.

15 Q So one of the distributors for
16 Monsanto in California is apparently agreeing with
17 Mr. Fernald about us Californians being liberals
18 and morons, sort of like a zombie movie?

19 MR. BRENZA: Beyond the scope. Move
20 to strike. Relevance.

21 A Yeah, I -- you've got a note here
22 from someone at Wilbur-Ellis outside our company,
23 I've never met him, I don't know what he's
24 referring to exactly here, and then one of our
25 employees uses company email to share it with

1 someone else and express his personal opinion.

2 Q (BY MR. WISNER) He shares it with
3 someone else within Monsanto.

4 A That is correct, so --

5 Q So he's spreading this insulting
6 language about Californians to other Monsanto
7 employees.

8 A Steven Gould --

9 MR. BRENZA: Move to strike.

10 A -- is a Californian. So if he's
11 saying about Californians broadly, it's about
12 himself. But I will say is, again, this language
13 is Greg Fernald's. I don't know exactly what he's
14 referring to specifically because I'm not him. He
15 shares it with someone at Monsanto and it's
16 forwarded along with an opinion.

17 Q (BY MR. WISNER) So let me just ask
18 you frankly then. Do you agree with this statement
19 on behalf of Monsanto that the California EBA --
20 EPA is being overrun by liberals and morons?

21 MR. BRENZA: Beyond the scope.

22 A What I -- what I will tell you here,
23 "We are being" -- so he says, "We are being." I
24 don't know what he's referring to exactly. Is he
25 talking about California as a whole? California

1 EPA? I don't know. What I can tell you is
2 Monsanto does not agree with the idea that -- with
3 making disparaging comments like that about the
4 employees of OEHHA.

5 Q (BY MR. WISNER) Okay. So you agree
6 then that it was inappropriate for Mr. Gould to be
7 spreading this type of stuff to other employees at
8 Monsanto using a Monsanto email address?

9 A He's sharing --

10 MR. BRENZA: Beyond the scope.

11 A He is sharing his personal opinion.
12 I don't really have a position on that from the
13 company.

14 Q (BY MR. WISNER) Okay. I'm giving
15 you Exhibit 77 to this deposition. If you take a
16 look, let me know when you're ready to talk about
17 it.

18 A All right.

19 Q You seen this document before?

20 A Yes, I have.

21 Q It's prepared by Mr. Gould?

22 A Yes, according to the top.

23 Q In his capacity working at Monsanto;
24 right?

25 A That is my understanding.

1 Q And he's doing a Proposition 65 cost
2 estimate for California Municipalities Markets;
3 right?

4 A That -- that is the title of the
5 document.

6 Q And he's discussing all these
7 different potential issues related to a Prop 65
8 warning; right?

9 A I don't know if I would say issues
10 but he -- I think what he's doing here, based on
11 the title, is just simply talking about, you know,
12 if -- how would municipalities respond to a Prop 65
13 listing.

14 Q And he's talking about, you know,
15 different types of sales that would be affected;
16 right?

17 A It -- it appears to be related to
18 sales, yes.

19 Q And at the very bottom, I think it's
20 interesting, it says the "Irvine Unified School
21 District and several bay area cities and school
22 districts."

23 Do you see that?

24 A I do see that.

25 Q And that's in reference to "Customers

1 that I am aware have already stopped using
2 Glyphosate since the IARC ruling"; right?

3 A That's what he states there.

4 Q Okay. Is that your understanding?

5 A My understanding, it -- just
6 generally in California, there are municipal
7 agencies that will say if IARC has a finding or if
8 Prop 65 has a finding, then we make the following
9 decisions. So it -- they're not necessarily doing
10 their own scientific assessment. They're just
11 simply saying if these things occur, we do the
12 following steps.

13 Q All right.

14 A And so I don't -- I don't know what
15 the basis is here, whether that's an automatic
16 decision they had or it's another -- they made
17 their own decision separate from that.

18 Q And isn't it true that Monsanto, once
19 this listing was made, went around and encouraged
20 people to send in letters to OEHHA to stop it?

21 A Yes, because we believed it would be
22 false and misleading.

23 Q Okay. And you had them send in
24 letters that you actually -- actually wrote for
25 them; right?

1 A We -- when we do public comment
2 periods, particularly one where we feel strongly
3 about it, we will provide sample letters to people,
4 we will have what essentially amounts to a petition
5 where people are able to do that. In this case we
6 did it because we believe such a listing would be
7 false and misleading.

8 Q Did you also do it for scientists?

9 A To my knowledge, we spoke with
10 scientists about the false and misleading nature of
11 the proposed listing.

12 Q Did you write any of their letters?

13 A Is there one in particular you'd like
14 to talk about or any examples?

15 Q I'm just asking -- asking if you
16 know.

17 A I --

18 MR. BRENZA: Calls for speculation.

19 THE WITNESS: Sorry.

20 A So I would like to see a document if
21 you had one you'd like to discuss specifically.

22 Q (BY MR. WISNER) I -- I actually
23 would rather not so we can get through this
24 quickly. I'm just asking you if you know Monsanto
25 wrote any letters for any scientists?

1 A If -- if you have a document you'd
2 like to discuss, I'd be happy to go over it with
3 you.

4 Q Do you know or not?

5 A If you have a document you'd like to
6 discuss, I'd be happy to go over it with you. I
7 think context is important --

8 Q I'm not asking about a document. I'm
9 asking what your knowledge is and you have to give
10 me your knowledge.

11 MR. WISNER: Please instruct your
12 witness to answer my question.

13 Q (BY MR. WISNER) Do you know or not?

14 A Is your question for him or me?

15 MR. WISNER: Please, sir, will you
16 instruct your witness to answer my question? He's
17 not answering.

18 MR. BRENZA: I -- I believe he's
19 answering the question to the best of his ability.

20 MR. WISNER: I asked if he has
21 knowledge. He said show me a document. What are
22 you talking about?

23 MR. BRENZA: Move on.

24 MR. WISNER: Move on? Instruct your
25 witness to answer. This is outrageous. You guys

1 want to get out of here on time, you're complaining
2 about time, and you're letting your witness not
3 respond to my question. This, sir, is your
4 responsibility of his -- as his attorney, and if
5 you refuse to do it, you are going to be held
6 responsible for the consequences.

7 Are you going to instruct your
8 witness to answer my question or not?

9 MR. BRENZA: No, I am not.

10 MR. WISNER: Okay.

11 Q (BY MR. WISNER) So, sir, to make it
12 clear on the record so the judge can see what
13 you're doing, I'm asking if you have any personal
14 knowledge on behalf of Monsanto about whether or
15 not Monsanto wrote any letters to OEHHA regarding
16 the listing for any scientists?

17 MR. BRENZA: Beyond the scope.

18 A If you have a document you would like
19 to review, I'd be happy to go over it with you.

20 Q (BY MR. WISNER) So to be clear,
21 you're refusing to answer my question; is that
22 right?

23 A If you have a document you'd like me
24 to review, I'd be happy to go over it with you.

25 Q Could you just answer whether or not

1 you're answering my question.

2 A If -- if you have a document that you
3 would like to review, I'd be happy to go over it
4 with you.

5 Q Please, sir, will you tell if you've
6 answered my question? I asked you a question.

7 A What I am saying is if you have a
8 document, which you appear to, I'd be happy to go
9 over it with you.

10 Q I have hundreds of documents.

11 A That's correct.

12 Q And your lawyer is complaining about
13 us taking too long and I am asking you a
14 straightforward question and you've refused to
15 answer me now fifteen times. Are you going to
16 stand by your decision not to answer my question
17 and suffer the consequences of a court ruling
18 against you, sir?

19 A If you have a document you'd like me
20 to review, I'd be happy to go over it with you.

21 MR. WISNER: Let's go off the record.

22 THE VIDEOGRAPHER: We are going off
23 the record at 1:17 p.m.

24 (A recess was taken.)

25 THE VIDEOGRAPHER: We are back on the

1 record at 1:29 p.m.

2 Q (BY MR. WISNER) So, Doctor, before
3 we ended off, I asked you a question and it simply
4 is, do you -- do you have any knowledge or do you
5 remember whether or not Monsanto authored any
6 letters to OEHHA in response to the notice of
7 listing for any scientists?

8 A My recollection is that we provided
9 data and information that they have -- may have
10 found relevant --

11 Q Okay.

12 A -- to share. But, of course, OEHHA
13 wasn't going to consider it anyway.

14 Q Okay. Well, I mean, why -- why'd you
15 do it, then?

16 A We -- we submitted our own letter as
17 well. The hope was that perhaps if we have this
18 information out there, it may do some good, but
19 OEHHA has already told everyone we won't consider
20 any science in this comment period.

21 Q Okay. So and just to be clear, you
22 guys submitted a letter that you knew wouldn't be
23 used?

24 A It was our hope it could be used, the
25 letter that we wrote as -- on behalf of our

1 company.

2 Q Mm-hmm.

3 A But the language of the -- of the
4 announcement says they would not be considering any
5 scientific information.

6 Q Okay. Well, I -- I -- I'm going to
7 challenge you on one of the things you said that,
8 that you guys just were -- were provided
9 background; okay?

10 I'm handing you a document, 78. Let
11 me know when you're ready to talk about document
12 78.

13 A All right.

14 Q Have you had a chance to review it?

15 A Yes, I have.

16 Q Okay. Great. This is a -- an
17 internal email communication from Dr. Goldstein to
18 a guy named Dr. Samuel Cohen; right?

19 A It -- it is an email from Dr.
20 Goldstein to Dr. Cohen. Dr. Cohen is not with
21 Monsanto.

22 Q That's right, sorry. So Dr.
23 Goldstein obviously is.

24 A That's right.

25 Q And the Subject is "Glyphosate and

1 Prop 65 - Sam Cohen"?

2 A That's correct.

3 Q And this is a document Dr. Goldstein
4 prepared and did as part of his work at Monsanto?

5 A That is correct.

6 Q Okay. And the first email reads,
7 "Sam - Apologies that I was not able to get this
8 out yesterday. I wanted to provide you a draft
9 letter and was under the impression that a model
10 letter was available, but this was not the case (we
11 had models, but not appropriate to your expertise).
12 I consequently had to pull one together."

13 Do you see that?

14 A I do see that.

15 Q And if you look at the back of this
16 letter, this email exchange, there is an email
17 attachment.

18 Do you see that?

19 A I do see that.

20 Q And it is a draft letter; right?

21 A I do see that.

22 Q And it is -- if you look at the back,
23 it has a bunch of stuff and commentary about it and
24 then it has a "Sincerely."

25 Do you see that?

1 A I do see that.

2 Q And there's no signature; right?

3 A That's correct.

4 Q Okay. So Monsanto, at least in this
5 context, prepared a draft letter for Dr. Cohen;
6 right?

7 A This actually reads very similar to a
8 letter Monsanto submitted, but he's -- Dr.
9 Goldstein here is explaining this commentary
10 throughout this about providing draft information,
11 people are able to do with it as they see fit. Dr.
12 Goldstein even admits he doesn't have, you know,
13 much of the information that Dr. Cohen would
14 provide and he would be able to add in to this or
15 not. It would be up to Dr. Cohen what he does with
16 this. And again, it would not be considered by
17 OEHHA.

18 Q All right. So let's be clear.

19 Monsanto wrote a letter for Dr. Cohen and gave it
20 to him?

21 A We provided him a -- a draft of a
22 letter that he could work with as he saw fit, and
23 we -- Dr. Goldstein acknowledges in here many
24 times, edit as you see fit, you have other
25 information that I know you're more of an expert

1 in, and again we know, ultimately, this -- any
2 scientific information wasn't going to be
3 considered by OEHHA. They told us before the
4 comment period started.

5 Q So let's go back to where we started.
6 I asked you if Monsanto ever wrote any letters for
7 any scientists. It appears, based on this
8 document, it did.

9 MR. BRENZA: Mischaracterizes the
10 testimony.

11 A What he did is Dr. Goldstein gave Dr.
12 Cohen some information that he could use. Here is
13 a draft of something you want to work with. He
14 acknowledges that Dr. Gold -- that Dr. Cohen has
15 expertise in this area that Dr. Goldstein does not
16 himself possess, feel free to edit. And again, we
17 know OEHHA is not going to accept scientific
18 commentary to begin with.

19 Q (BY MR. WISNER) Okay. So I'm
20 handing you a document 79. Take a look at it and
21 let me know when you're ready to talk about it.

22 A All right.

23 Q So this document is the letter that
24 Dr. Cohen sent to OEHHA; correct?

25 A That is correct.

1 Q And if you look, the last page of the
2 letter, it's actually signed by Dr. Cohen; right?

3 A That is correct.

4 Q And I don't see any reference to Dr.
5 Goldstein on here, do you?

6 A No, because this is Dr. Cohen's work.

7 Q Is it?

8 A Yes, it is.

9 Q Oh. Okay. I mean, we're on the last
10 page of that letter where the signature is. Let's
11 go back to there. And I'm looking at the -- at the
12 last page of the letter that was given to him from
13 -- from Dr. Goldstein. And if we're looking over
14 on the screen, you'll -- you'll see it. The last
15 paragraph in the draft letter begins with "In
16 closing."

17 You see that?

18 A I do see that.

19 Q And the letter that Dr. Cohen said
20 begins -- last paragraph begins "In closing";
21 right?

22 A Yes. These two sentences appear to
23 be similar.

24 Q I -- I don't know -- look, they
25 almost look identical; right? The first -- the

1 bottom one reads -- the one that was given to him
2 by Dr. -- Dr. Goldstein was, "In closing, I would
3 reiterate that regulatory authorities around the
4 world agree that there is no evidence that
5 glyphosate causes cancer, even at very high doses,
6 and that it is not genotoxic. I strongly disagree
7 with OEHHA's intention to list glyphosate under
8 Prop 65."

9 Do you see that?

10 A I do see that.

11 Q Those are the words that Dr.
12 Goldstein wrote?

13 A And those are the words Dr. Cohen
14 agreed with and left in his letter under his own
15 decision-making.

16 Q Oh, did you talk to him?

17 A No, this is his own decision. He's
18 got his name on here. The letter -- the email from
19 Dr. Goldstein says, edit as you see fit --

20 Q Yeah, and he didn't.

21 A -- add your own expertise in. So we
22 also see common paragraphs here about IARC and
23 their process and their scientific shortcomings
24 that Dr. Cohen apparently added in, but ultimately,
25 at the end of the day, OEHHA wasn't going to be

1 considering scientific information --

2 Q I understand.

3 A -- such as this letter.

4 Q I understand they weren't going to
5 consider it, that you guys sent your own letter and
6 had Dr. Cohen send a letter because they weren't
7 looking at it. I -- I understand that.

8 A Their own plain language says they
9 are not going to review --

10 Q Yeah.

11 A -- any scientific information.

12 Q So I see that you guys engaged in
13 this process which apparently doesn't seem to have
14 a purpose, but that's fine.

15 A It was futile because OEHHA was not
16 going to be considering scientific information.

17 Q Okay. So this is a futile letter.

18 This is your own word, sir, and to be clear, it's
19 ghost written; correct?

20 A No, that is incorrect.

21 Q I'm sorry, we have literally that
22 phrase, that paragraph written by Dr. Goldstein,
23 and then signed by Sam Cohen. How is that not
24 ghost writing?

25 A There is additional information in

1 here that's -- Dr. Cohen appears to have produced
2 himself.

3 Q Fair enough. That paragraph. This
4 last one right here, that's ghost written?

5 A I would not agree that's ghost
6 written.

7 Q What -- what would you call that,
8 sir?

9 A Dr. Cohen was free to do what he
10 wanted with the language in that letter that Dr.
11 Goldstein shared with him as an example of
12 information.

13 Q And he chose to let Monsanto write
14 his own closing paragraph?

15 A I cannot --

16 MR. BRENZA: Asked and answered.

17 A I'm sorry, I can't speak for what was
18 in Dr. Cohen's mind. All I can say is he chose to
19 leave it in here because this is his work sent from
20 the University of Nebraska.

21 Q (BY MR. WISNER) So your testimony,
22 this is not ghost writing?

23 A It is not ghost writing.

24 Q Okay. Not ghost writing. Not ghost
25 writing. But it's verbatim; right?

1 A Those two sentences are the same as
2 what Dr. Goldstein provided, but the remainder of
3 the letter is quite different.

4 Q Is it i-m or u-m? Verbatim?

5 A I-m.

6 Q Thank you. Told you, I can never
7 spell. That's why I always don't want to stuff
8 down. Okay.

9 Um, all right. So notwithstanding
10 the futility of discussing science with OEHHA, Dr.
11 Farmer went out and actually met with OEHHA, didn't
12 she?

13 A She did.

14 Q She actually came to California;
15 right?

16 A She did.

17 Q Yet ironically, she refuses to come
18 testify at trials; right?

19 MR. BRENZA: Objection. Beyond the
20 scope.

21 A I am not here --

22 MR. BRENZA: Assumes matters not in
23 evidence.

24 A I am not here to provide Monsanto's
25 testimony regarding any appearances in court in

1 California by anyone.

2 Q (BY MR. WISNER) Fair enough. We'll
3 let the jury see if she shows up for the trial.

4 MR. BRENZA: Move to strike.

5 Q (BY MR. WISNER) All right. So --

6 MR. BRENZA: Move to strike.

7 Q (BY MR. WISNER) So -- so at the very
8 least, when OEHHA is considering listing glyphosate
9 as a substance known to the state of California to
10 cause cancer, Dr. Farmer, she traveled out there;
11 right?

12 A My understanding is she went there to
13 discuss science with OEHHA.

14 Q Discuss science that you've testified
15 was futile?

16 A They, in their -- in OEHHA's own
17 notice, they said they would not be considering
18 science as part of the public comment period.

19 Q So why did she go?

20 A Because it's important to present the
21 science any opportunity you have even, if the odds
22 are low that they're going to listen.

23 Q Let nothing go; right?

24 MR. BRENZA: Asked and answered.

25 Mischaracterizes the testimony.

1 A Again, I'm not here to testify about
2 anything of that nature.

3 Q (BY MR. WISNER) Discomfort
4 opposition?

5 A So again, if you have a document, I'd
6 be happy to look at it.

The image consists of a grid of black bars on a white background. There are 15 horizontal rows. Each row contains several black bars of varying widths and positions. The pattern is irregular, resembling a barcode or a series of binary code. The bars are solid black and have thin white borders.

18 All right, Doctor, I've handed you

19 Exhibit 81.

Do you see that?

21 A I do see that.

22 Q Take a look at it, let me know when
23 you're ready to talk about it.

24 A I'm ready.

25 Q All right. So this is dated July

1 2017; right?

2 A That's correct.

3 Q And this was two years after the
4 original listing; correct?

5 A It was approximately two years, I
6 would agree.

7 Q And this was specifically the final
8 decision of OEHHA to actually list glyphosate as a
9 chemical known to cause cancer; right?

10 A Yes. They are announcing that
11 effective July 7th.

12 Q And in fact, as explained here, the
13 reason why it was held up was because Monsanto sued
14 OEHHA; correct?

15 A Because we bel -- we -- we took that
16 legal action because we believe this is false and
17 misleading.

18 Q So Monsanto sued the California EPA
19 for doing its job?

20 A We took that action because we
21 believe it is false and misleading.

22 Q Okay. Again, let nothing go; right?

23 A I am not prepared --

24 MR. BRENZA: Object to form.

25 A -- to testify on that topic.

1 Q (BY MR. WISNER) All right. I'm
2 handing you a document, after it was officially
3 listed as a substance known to the state of
4 California, the Office of Environmental -- OEHHA
5 said it would be considering a no significant risk
6 limit; right?

7 A I understand that.

8 Q And a no significant risk limit,
9 that's basically a -- a threshold by which, if
10 people's exposures are -- are4 below that, you
11 don't have to warn, but if it's above that, then
12 you're supposed to warn under Prop 65?

13 MR. BRENZA: Calls for a legal
14 conclusion.

15 A My under -- that is language that
16 I've heard ascribed to an NSRL, but the precise
17 definition would be in California --

18 Q (BY MR. WISNER) Okay.

19 A -- regulation and law.

20 Q I'm handing you a document, 82.
21 Please take a look at this and let me know when
22 you're ready to talk about it.

23 A All right.

24 Q So this was the Notice of Proposed
25 Rulemaking, specifically the no significant risk

1 limit for glyphosate; right?

2 A That is correct.

3 Q And this is posted in 2017; right?

4 A That's correct.

5 Q And again this, like the original
6 listing, this one is asking for you to submit any
7 comments; correct?

8 A That is correct.

9 Q Scientific comments; right?

10 A In -- in this one they're asking for
11 critique of the work they did that is based
12 directly off of IARC's work --

13 Q Precise --

14 A -- so that the scope of the
15 information they can consider is limited to what
16 IARC cited.

17 Q Sure. But they are considering
18 scientific information; correct?

19 A Yes, on that -- on that limited frame
20 of information from IARC.

21 Q Okay, great. And they actually --
22 they submitted a -- issued a report that they asked
23 for people to have comments about; right?

24 A That is correct.

25 Q Giving you Exhibit 83. Do you see

1 this document, sir?

2 A I do. I just want to make sure I'm
3 familiar with the whole thing.

4 Q Sure.

5 A All right.

6 Q Okay. So this is a document that
7 reflects the Initial Statement of Reasons for
8 Glyphosate; right?

9 A That's correct.

10 Q And this document was submitted and
11 prepared by OEHHA; correct?

12 A That is correct.

13 Q And this is the document, and the
14 analysis contained within it is what they are
15 asking for commentary about; right?

16 A That is correct.

17 Q And if you go through it, you see
18 there's discussions of different tumor types. Do
19 you see that Table 1?

20 A Yes, reporting data from IARC.

21 Q And there's a pretty complicated,
22 looks like algorithm on page 4?

23 A That's correct.

24 Q And then they're doing some more
25 calculations, trying to, as they say here,

1 calculate the no significant risk level; right?

2 A That's correct.

3 Q Okay. And they ultimately propose
4 one of 1100 micrograms per day; right?

5 A That is correct.

6 Q And that's the idea that if -- if
7 people are being exposed to amounts greater than
8 that, then they need to be warned under Prop 65,
9 and if they're being exposed to stuff less than
10 that, then you don't have to do anything?

11 MR. BRENZA: Beyond the scope. Calls
12 for speculation. Calls for a legal conclusion.

13 A So again, they're -- they're
14 identifying 1100 micrograms per day as the NSRL,
15 and then the interpretation of that and the warning
16 is actually a -- a legal matter in California I'm
17 not prepared to testify about.

18 Q (BY MR. WISNER) All right. Monsanto
19 submitted a comment to the NSRL; right?

20 A We did.

21 Q Okay. And -- and Monsanto advocated
22 that there just shouldn't be any NSRL; right?

23 A Yes, we agreed with two of the -- of
24 California's carcinogen identification committee
25 members on that.

1 Q So Monsanto wanted to be that, no
2 matter the risk amount, the amount the exposure
3 level, there wouldn't have to be a warning, they
4 wanted no limit?

5 A What we were saying is there's no
6 reasonable justification for a listing in the first
7 place.

8 Q And OEHHA heard your argument and
9 responded to it, didn't they?

10 A Well, so on the -- we shouldn't --
11 this shouldn't be listed in the first place. They
12 would not listen to any scientific conclusion. On
13 the NSRL, we were arguing it should be infinite
14 because glyphosate does not cause cancer.

15 Q Exactly. Infinite exposure, OEHHA
16 heard you guys out and they rejected it; right?

17 A They really, at that point, their
18 requirements are that they have to -- they have to
19 list because of IARC and because of what is in the
20 monograph, they can only use that to draw -- to
21 create that NSRL. That's what that previous
22 document discusses.

23 Q I, sir, am also not very good with
24 rejection, but let's be straight here. OEHHA heard
25 your guys's argument about an infinite NSRL and

1 they rejected it; right?

2 MR. BRENZA: Object to form. Asked
3 and answered.

4 A They are required -- OEHHA is
5 required to make the listing based on IARC. Once
6 they do that, that is not a scientific process.
7 It's simply -- they describe it as ministerial
8 function. At that point, they are -- they must
9 calculate that NSRL using the information from the
10 IARC Monograph. They are constrained by that
11 monograph and so they're stuck with what IARC
12 relied on. That's --

13 Q (BY MR. WISNER) Okay.

14 A -- and that's how they describe it.

15 Q (BY MR. WISNER) Move to strike your
16 answer as completely not responsive. Didn't ask
17 about the initial listing. Didn't ask you about
18 IARC. Didn't ask you about really any of that. I
19 actually asked you a very straightforward question.

20 Monsanto asked for an infinite NSRL
21 and OEHHA rejected that; correct?

22 MR. BRENZA: Object to form.

23 A Yes, and I'm providing -- I am
24 providing context to that. The point is the
25 initial decision is not a scientific conclusion.

1 It's solely to repeat IARC. Then, when they
2 calculate this number, this NSRL we're
3 discussing --

4 MR. WISNER: He's a robot.

5 MR. BRENTA: Continue.

6 A -- this -- I'm sorry, I'm speaking.

7 This NSRL we're discussing is calculated solely on
8 the basis of what is in that IARC Monograph. We
9 did not believe any of that was appropriate and we
10 submitted comments accordingly.

11 Q (BY MR. WISNER) Did you practice
12 this answer in a mirror?

13 A I'm sorry, is that a -- is that an
14 actual question?

15 Q Yeah. Did you?

16 A No, I am speaking to you today. This
17 is the information I have.

18 Q Well, you repeated almost verbatim
19 the same words to this question like six times and
20 I'm wondering how you can say it so perfectly each
21 time without having practiced it.

22 A I'm practicing it right here with
23 you.

24 Q Oh, I see. Because I didn't ask you
25 about any of that. I asked you if it got rejected

1 and I do believe you said yes. So I'm going to
2 move to strike everything after the word yes as
3 clearly non-responsive. I think you would even
4 admit it was.

5 A No, I would not.

6 Q Okay. All right. So following --
7 when OEHHA rejected Monsanto's request for an
8 infinite NSRL, they issued a 50-page report
9 discussing Monsanto's, as well as many other
10 people's criticisms; right?

11 A They responded to public comments.

12 Q Right. And they were responding to
13 scientific challenges; right?

14 A They were responding to the
15 information that was submitted to them.

16 Q And those were -- many of them,
17 including Monsanto's, were -- were criticisms using
18 -- of the science; right?

19 A Monsanto's was a criticism of the
20 underlying science. Everyone else's comments I
21 cannot speak to unless -- well, actually, I can't
22 speak to them because I am not here to testify for
23 other people's comments.

24 Q Okay. All right. So I have a few
25 more things about this. I'm handing you a document

1 -- I'm losing these stickers. Here we go. Exhibit
2 84 to your deposition. Take a look at it and let
3 me know when you're ready to discuss.

4 Actually, before -- before we do
5 that, Doctor, this is something I -- I forgot I
6 wanted to ask you about earlier and I forgot, that
7 I got caught up in stuff.

8 But remember when we were talking
9 about Sam Cohen a second ago?

10 A Yes, mm-hmm.

11 Q Is he a paid Monsanto consultant?

12 A He has consulted with us on some
13 topics in the past.

14 Q He's also somebody who participated
15 in the peer review of the Intertek manuscripts that
16 Monsanto had Intertek do in 2016; correct?

17 A I'm -- I'm not aware of who the peer
18 reviewers were on those.

19 Q Okay. All right. Did you know that
20 he was also an editor in the journal that retracted
21 the Seralini article?

22 A I have seen him listed as a -- as a
23 reviewer on -- in journals. I'm not sure which
24 ones he's actually a reviewer for.

25 Q We have that document. Remember,

1 with the listing of the -- the people --

2 A Yes.

3 Q -- on it? Could you just dig one of
4 those out?

5 A Okay. Do you want me to do that
6 rather than look at this?

7 Q Yeah, we're just going to do that
8 quickly so that we can go back to this.

9 A Do you know what exhibit number that
10 was.

11 Q I do not.

12 MR. WISNER: Do you guys know?

13 MR. BRENZA: No.

14 Q (BY MR. WISNER) It's going to be
15 pretty far in there, towards the end. You could
16 probably jump --

17 A I just want to make sure these -- I
18 don't know that they're all in order in fact.

19 Q Okay.

20 A Okay, we're up to the -- the
21 Editorial Board, is that what you have?

22 Q That's right. You got it?

23 A Okay. This is Exhibits 48 and 49 --

24 Q Great.

25 A -- that show the editors.

1 Q All right. Let's look at Exhibit 48.

2 That's the one from 2012; right?

3 A Yes, that's correct.

4 Q Take a look and see if you can find
5 Dr. Cohen. It's not there; right?

6 A In -- in 2012?

7 Q Yeah.

8 A Yeah, I see him here --

9 Q Oh, you do.

10 A -- on the International Editorial
11 Board.

12 Q So great. So he was on the Editorial
13 Board when the Seralini study was published.

14 A That's true.

15 Q Okay. So it looks like there was not
16 just Dr. Hayes, not just Dr. Goodman -- well,
17 actually, I -- I shouldn't say that. Looks like
18 you had two previous people who had consulted for
19 Monsanto on the Editorial Board.

20 A At the time of publication?

21 Q Mm-hmm.

22 A If they were working for us and doing
23 what we asked, why would they publish that in the
24 first place? I don't understand.

25 Q Okay. But they were also on it when

1 it was retracted; right?

2 A But they were also there -- they --
3 they were there when it was retracted, they were
4 there when it was published.

5 Q Okay. So that's -- so Dr. Cohen was
6 in -- on the editorial -- this is -- when this all
7 started, Dr. Cohen was on the Editorial Board for
8 the journal that retracted the Seralini study;
9 correct?

10 A He was also there for the one when --
11 when it published it. He was there when it was
12 published and when it was retracted.

13 Q Okay. Great. All right. So going
14 back to this document in front of you, please let
15 me know when you're ready to discuss it.

16 A And this is 84?

17 Q That's right.

18 A All right.

19 Q Okay, great. This is an internal
20 email exchange within Monsanto?

21 A That is correct.

22 Q It was document made in the regular
23 course of Monsanto's business?

24 A It would appear so based on the
25 evidence here.

1 Q Great.

2 A Based on the text.

3 Q And so you see a -- there is a -- an
4 email on the front and there's an attachment.

5 Do you see that?

6 A I do see that.

7 Q Let's go to the attachment. First
8 page is Monsanto. Social Media Outreach for
9 Monsanto's California Sites and People, A Request
10 for Support.

11 Do you see that?

12 A I do see that.

13 Q And then we turn the page. Broad
14 Objective. "The primary objective and challenge
15 that our social media plan is working to solve is
16 to maintain Monsanto's Freedom to Operate, with a
17 particular focus on California people and
18 interests."

19 Do you see that?

20 A I do see that.

21 Q The Challenge. "The company is held
22 up as the target of various interest groups,
23 including those opposing GMOs, farmer rights to
24 saved seed, multinationals, Big-Ag, evil/greedy
25 corporations, pesticides, and more. Their efforts

1 have restricted our FTO," or Freedom to Operate,
2 "in various ways including blocking sales of safe,
3 sustainable solutions in certain areas, limiting
4 our ability to attract and keep employees, imposing
5 costly environmental restrictions on use of our
6 products, limiting our development of new
7 solutions, and ultimately sales of our products."

8 Do you see that?

9 A I do see that.

10 Q So this is discussing how these
11 various groups of people identified here are
12 ultimately limiting Monsanto's sales of their
13 products?

14 MR. BRENZA: Mr. Reeves is not here
15 to testify about social media today, and I'm going
16 to object as beyond the scope of what the topics
17 he's being offered for.

18 Q (BY MR. WISNER) Oh, I asked you a
19 question. You still haven't answered it.

20 A I'm sorry, I -- I missed your
21 question. Can you repeat it, please?

22 MR. WISNER: Okay. Have the court
23 reporter read it back.

24 THE REPORTER: "So this is discussing
25 how these various groups of people identified here

1 are ultimately limiting Monsanto's sales of their
2 products?"

3 MR. BRENZA: Same objections. Beyond
4 the scope of the -- this witness's offered topics.

5 THE WITNESS: All right. And -- and
6 -- but go ahead and answer? Is that --

7 MR. BRENZA: Don't --

8 THE WITNESS: Or not?

9 MR. BRENZA: If you have personal --

10 MR. WISNER: He needs coaching.

11 MR. BRENZA: If you have personal

knowledge, you can answer. If -- if you're answering on behalf of Monsanto, no, you should not answer.

15 A Okay. So I would not be answering on
16 behalf of Monsanto. It would only be in my
17 personal capacity as somebody who does not work in
18 California with this team.

19 Q (BY MR. WISNER) Sir, it would be in
20 your personal capacity to read the English
21 language; right?

22 A Yes, it is.

23 Q Okay.

24 A I can read the English language.

25 Q SO --

1 A I'm just telling you I do not work
2 with the California team, so.

3 Q I got it. I got it.

4 A All right.

5 Q I don't get to depose very many
6 people in this case. You're the guy I got.

7 A All right.

8 Q So I'm showing you the document I
9 got. If -- you told me that it was a document made
10 in Monsanto's business, I appreciate that. So now
11 I'm getting to what it says. And it says here,
12 these various groups are limiting Monsanto's
13 Freedom to Operate and therefore limiting sales.
14 Right?

15 MR. BRENZA: Same objection. It's
16 beyond the scope. Calls for speculation.

17 A That sentence lists a variety of
18 things under FTO, various -- it says "various ways,
19 blocking sales of safe, sustainable solutions,
20 limiting our ability to attract and keep employees,
21 imposing costly environmental restrictions on use
22 of our products, limiting our development of new
23 solutions," and then "ultimately sales of our
24 products." So it's also redundant.

25 Q (BY MR. WISNER) All right. Turn to

1 the section that says Challenges to Ag in
2 California.

3 A I do see that.

4 Q All right. First paragraph talks
5 about Proposition 37.

6 Do you see that?

7 A I do see that.

8 Q And it says, "California's
9 Proposition 37, a Mandatory Labeling of Genetically
10 Engineered Food Initiative, was on the November 6,
11 2012, ballot as an initiated state statute, where
12 it was defeated with a vote of 51 percent against,
13 49 percent for. This was defeated with Monsanto
14 contributing a reported \$8 million to help defeat
15 the initiative."

16 Do you see that?

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

19 A Those words appear on the page but I
20 do not have any personal knowledge of Proposition
21 -- Proposition 37 or any campaigning we did related
22 to that.

23 Q (BY MR. WISNER) Okay. So to be
24 clear, you had no involvement in Monsanto's \$8
25 million initiative to oppose Proposition 37?

1 A No --

2 MR. BRENZA: Assumes matters not in
3 evidence. Move to strike. Beyond the scope.

4 A I have no recollection in my personal
5 capacity of working on that.

6 Q (BY MR. WISNER) Okay. Well, the
7 next one, that's a paragraph you did have knowledge
8 of because that's what you're here to testify
9 about. "Early in September 2015, the California
10 Office of Environmental Health Hazard Assessment
11 (OEHHA) filed a 'notice of intent' to list
12 glyphosate as a cancer-causing agent and therefore
13 necessary for listing under the state's Proposition
14 65. Monsanto is suing to present this as it would
15 be a bad precedent and also false."

16 Do you see that?

17 MR. BRENZA: Beyond the scope. Move
18 to strike.

19 A I -- I see those words on the page
20 but I have no, um --

21 Q (BY MR. WISNER) No what?

22 A I'm just trying to think through
23 here. So I am just thinking about at that time.
24 Oh, March of '16. I -- I don't recall when I
25 became aware of litigation over this.

1 Q All right. But you're --

2 A So if it was at this time or not, all
3 I -- I -- all I'm doing is saying I see these words
4 on the page.

5 Q Okay. And part of your 400 hours of
6 preparation for this --

7 A Mm-hmm.

8 Q -- deposition involved preparing to
9 talk about Prop 65; right?

10 A Yes, that's correct.

11 Q Okay. So "California takes pride in
12 its Farmers markets," quote, "eat local, organic,
13 farm to fork, soil to soul, GMO-free and healthy
14 living lifestyle. Unfortunately, the vast majority
15 of the people have no idea about food production,
16 except what they learn from California natives,
17 Michael Pollan, Alice Waters, and the host of
18 celebrities in Hollywood (also in California) who
19 espouse an all-organic diet."

20 Did I read that correctly?

21 A Again, Monsanto takes no position on
22 this but those words appear on the page.

23 Q Monsanto takes no position of it but
24 this is, quite literally, what it's being said
25 about Californians in a document that specifically

1 is titled Social Media Outreach for Monsanto's
2 California Sites and People; right?

3 MR. BRENZA: Beyond the scope of this
4 witness. Asked and answered.

5 A Yeah, this is beyond the scope of
6 what I'm prepared to testify about. What the
7 nature of this paragraph is.

8 Q (BY MR. WISNER) I just said it's
9 written in the document with that title. Is there
10 something factually untrue about that?

11 A Speaking on my personal capacity,
12 those words appear in this document.

13 Q Great. Happy that we can all read.

14 All right. Okay, great. Let's move
15 on to the last document. I'm handing you a
16 document that's Exhibit 85 to your deposition.
17 Please let me know when you have had a chance to
18 look at it and we can discuss it.

19 A All right.

A horizontal bar chart consisting of six data series. Each series is represented by a vertical black bar followed by a horizontal black bar. The length of the horizontal bars decreases sequentially from left to right.

Series	Vertical Bar Position	Horizontal Bar Length (approx.)
1	Top	Very Long
2	Middle	Medium
3	Bottom	Very Short
4	Top	Medium
5	Middle	Very Short
6	Bottom	Medium

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single bar, while others have multiple bars. The lengths of the bars vary significantly, from very short to nearly full-width. The pattern suggests a binary matrix where each row represents a binary string. There are no discernible text or other graphical elements.

[REDACTED]

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[REDACTED] [REDACTED] [REDACTED]

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A series of horizontal black bars of varying lengths, likely representing data points or measurements. The bars are arranged vertically, with some gaps between groups of bars. The lengths of the bars vary significantly, indicating a wide range of values for the measured quantities.

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, creating a pattern of binary-like data. The grid is composed of approximately 20 rows and 10 columns of bars.

The image consists of a grid of horizontal black bars on a white background. The bars are of different widths and are positioned at various vertical intervals. Some bars are aligned vertically, while others are offset. The pattern creates a sense of depth and repetition, similar to a barcode or a stylized data visualization.

A 2D bar chart illustrating the distribution of data across 20 categories. The x-axis represents the category index, ranging from 0 to 19. The y-axis represents the frequency or count, ranging from 0 to 100. The bars are black and have thin white outlines. The distribution is highly right-skewed, with most categories having a frequency of 0 or 1, and a few categories reaching a frequency of 100.

Category Index	Frequency
0	1
1	1
2	1
3	1
4	1
5	1
6	1
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The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single short bar at the top left, while others have longer bars extending across most of the width. The lengths of the bars in each row vary, creating a pattern of binary-like data. The grid is composed of approximately 20 rows and 10 columns.

The image consists of a series of horizontal black bars of varying lengths and positions. The bars are arranged in a grid-like pattern, with some bars missing from certain rows. The lengths of the bars vary significantly, with some being very short and others extending across most of the width of the frame. The positions of the bars also vary, with some appearing in the center and others shifted to the left or right. The overall effect is a sense of abstract, minimalist art.

The image consists of a grid of 20 horizontal black bars of varying lengths. The bars are arranged in a single row. Each bar has a small black square at its left end. The lengths of the bars decrease from left to right, creating a visual gradient. The first few bars are relatively long, while the last few are very short. The bars are set against a white background.

The image consists of a grid of black horizontal bars on a white background. The bars are arranged in approximately 20 rows and 8 columns. Each row contains a sequence of bars of varying widths, creating a pattern of vertical and horizontal lines. The bars are solid black and have thin white borders. The overall effect is reminiscent of a barcode or a stylized representation of binary data.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, creating a pattern of vertical and horizontal segments. The overall effect is reminiscent of a barcode or a series of binary code. There are approximately 20 rows and 10 columns of bars.

The image consists of a grid of black horizontal bars of varying lengths on a white background. The bars are arranged in rows and columns, creating a pattern that suggests a binary matrix or a series of encoded data. The lengths of the bars vary, with some being very long and others very short, or even missing entirely. This visual representation could be a barcode, a matrix code, or a specific type of data visualization.

The image consists of a grid of black horizontal bars of varying lengths and positions on a white background. The bars are arranged in approximately 20 rows. Some rows contain a single long bar, while others contain multiple shorter bars. The lengths of the bars vary significantly, from very short segments to nearly full-width lines. There are also several small, isolated black squares scattered among the bars, particularly in the middle and lower sections. The overall pattern suggests a binary matrix, a series of masked data points, or a specific type of barcode representation.

The image consists of a grid of black bars of varying lengths on a white background. The bars are arranged in rows and columns. Some rows have a single long bar, while others have multiple shorter bars. The lengths of the bars vary significantly, creating a pattern of binary-like data. The grid is composed of approximately 20 rows and 10 columns.

The image consists of a grid of black and white squares. The top half features several long, thin horizontal bars of varying lengths, some with small black dots at their ends. The bottom half contains a series of shorter, thicker horizontal bars, also with occasional end dots. This pattern creates a visual effect similar to a barcode or a stylized data visualization.

1 a break.

2 THE VIDEOGRAPHER: We are going off
3 the record at 2:15 p.m.

4 (A recess was taken.)

5 THE VIDEOGRAPHER: We are back on the
6 record at 2:36 p.m.

7 Q (BY MR. WISNER) Sir, I have Exhibit
8 76 in front of you. That is that email exchange
9 with Mr. Gould and Mr. Fernand -- Fernald?

10 A Yes.

11 Q Okay. And that's the email that
12 discusses the liberals and morons and zombies and
13 what have you?

14 A I see those words on this page.

15 Q And it also, it says, you know,
16 discussed -- we discussed about this earlier but it
17 says, "so we just are -- we just have to start
18 taking them out one at a time, starting with the
19 elections next year"; right?

20 You see that?

21 A I see that.

22 Q And so when we -- when we take that
23 expression or sentence and we combine it with this
24 document that we've been looking at regarding a
25 statement from the White House about it having

1 Monsanto's back, it does sort of seem like Mr.
2 Fernald was right.

3 MR. BRENZA: Object to -- object to
4 form. Outside the scope. Calls for speculation.

5 A I -- I cannot comment on that. These
6 are two completely unrelated documents from what I
7 can tell and it appears to be someone in California
8 sharing his thoughts. A marketing pitch I have no
9 knowledge of. I don't know how those could be
10 connected.

11 Q (BY MR. WISNER) Well, I mean, I -- I
12 guess -- I guess I can try to connect the dots for
13 you. All right? We have him talking about the
14 elections next year, and the next year there was
15 the presidential election, and then we have a
16 statement from the president that won that election
17 saying that it has Monsanto's back.

18 I think those are connected. Don't
19 you agree?

20 MR. BRENZA: Assumes matters not in
21 evidence. Beyond the scope. Move to strike.

22 A I don't believe those are connected.
23 I don't see how any of these documents have
24 anything to do with each other.

25 Q (BY MR. WISNER) All right. So let's

1 go back to this Exhibit 73. It's this chart we --
2 we were using regarding regulators reviews and
3 what have you.

4 And so we -- we talked a little bit
5 about OEHHA; right?

6 A Yes, we did.

7 Q Following IARC; right?

8 A That's correct.

9 Q And then we also -- we also discussed
10 that it had -- does an NSRL analysis?

11 A That's correct.

12 Q Okay, great. And -- and OSHA, we
13 talked about it briefly but I'll just fill it in.
14 My understanding is that the Material Safety Data
15 Sheet requires a disclosure -- a disclosure of the
16 IARC classification.

17 MR. BRENZA: Beyond the scope.

18 A I have seen the -- the Material
19 Safety Data Sheet for glyphosate. It contains a
20 mention of IARC and knows that we do not agree with
21 it because it is not factually correct.

22 Q (BY MR. WISNER) All right. So
23 discloses IARC. Okay.

24 A And notes our disagreement with their
25 conclusions.

1 Q Sure. Notes MON disagreement; okay?

2 A That's correct.

3 Q Okay. Great. And then we talked
4 about the ASTD -- S -- ATSDR. That's a -- an
5 evaluation that's in progress?

6 A That is undergoing peer review at
7 this time according to the ATSDR website.

8 Q Okay. And it was originally supposed
9 to come out in 2015; right?

10 A I am not aware of the original
11 timeline. All I can tell you is that if you go to
12 their website, it shows it, says it's been handed
13 off for peer review, and that peer review is
14 pending.

15 Q So I'm just going to put in progress
16 because -- and I'll write peer review. Okay? Have
17 you seen the review?

18 A No. I'm -- it just says undergoing
19 peer review. It's like a status update on their
20 website.

21 Q Okay, cool. So we've kind of covered
22 a couple of these different groups, and then we
23 look at the OPP; okay?

24 A Yes, I see that.

25 Q So the OPP issued a report; right?

1 A Are you talking about the issue
2 paper?

3 Q Yeah.

4 A That the -- oh, yes. They -- they
5 issued a -- issue paper on carcinogenicity of
6 glyphosate.

7 Q And that was originally prepared by
8 the, I think it's called the CARC committee?

9 A No, that is incorrect.

10 Q Oh, okay. What is CARC?

11 A CARC is separate from the issue
12 paper. So the CARC report came out originally and
13 said no evidence of carcinogenicity, um, category
14 E, and then -- and then the white paper was
15 produced for the Science Advisory Panel.

16 So it follows the CARC. It has the
17 same conclusions as CARC but it's -- it's -- I am
18 not sure if I remember correctly if there was
19 actually attribution on there as to who within EPA
20 wrote the sections of it.

21 Q Okay. Fair enough. And the CARC
22 report that you mentioned, that was retracted;
23 right?

24 A No, it was not retracted. It was the
25 final document. The agency made the statement that

1 there was additional information following the
2 finalization of the CARC report and that's why they
3 produced the white paper.

4 Q It was pulled off the internet after
5 it was released; correct?

6 A No, that is not correct. It was
7 accidentally released and, for whatever reason, on
8 the -- the EPA website, we call it a docket, it's
9 just the electronic files that are available. It
10 was released in late April or early May of 2016.
11 That was said to be an error. They pulled it back,
12 and then when they moved forward with the white
13 paper and the announcement of the Science Advisory
14 Panel, that became one of the documents in the
15 record --

16 Q Gotcha.

17 A -- for the SAP to consider.

18 Q I appreciate you helping me clear
19 that up. I had a confusion about that.

20 A Sure.

21 Q All right. So there's the OPP. And
22 then so we have the report; right? Which I'm
23 calling it -- you called it a white paper?

24 A Yeah, they describe it as a white
25 paper.

1 Q White paper. And then that was
2 submitted to the SAP; right?

3 A Yes, for peer review.

4 Q And that's a Scientific Advisory
5 Panel?

6 A That's correct.

7 Q And the Scientific Advisory Panel is
8 a group of -- of independent experts who
9 essentially peer review the OPP's work; right?

10 A That's right. They're -- they
11 require -- one of the main requirements is not
12 being an agency employee already.

13 Q Monsanto took issue with people who
14 were going to participate on the SAP; correct?

15 A That is correct.

16 Q Specifically a guy named Dr. Infante?

17 A That is correct.

18 Q Infante. I-n-f-a-n-t-e.

19 A That's correct.

20 Q Why did Monsanto object to having Dr.
21 Infante be involved with the SAP?

22 A Our concern -- we have a letter
23 actually. As an industry, CropLife submitted it.
24 The -- the letter itself speaks to some conflicts
25 of interest that Dr. Infante appeared to have.

1 That information was shared with EPA and then he
2 was no longer on the SAP. There was never a
3 statement one way or the other about how EPA
4 reached their conclusion.

5 Q So it kind of looked like the EPA had
6 Monsanto's back?

7 A I -- I never saw anything that would
8 indicate that.

9 Q I mean, we just saw that document
10 where the White House said EPA -- you know, the
11 White House has its back, so that would be
12 consistent with that reality; right?

13 MR. BRENZA: Assumes matters not in
14 evidence. Move to strike.

15 A This was during the Obama
16 administration.

17 Q (BY MR. WISNER) I thought the SAP
18 was in 2017?

19 A 2016. December of 2016. It was
20 originally announced for October of 2016.

21 Q Oh, I gotcha. Okay. So -- so this
22 wasn't a White House thing?

23 A I don't believe it ever is a White
24 House thing. It's more a question of, you know,
25 the agency is responsible for arranging for an SAP

1 and identifying members.

2 Q Okay.

3 A They submit them for public comment,
4 CropLife submitted comments.

5 Q And so to be clear, Monsanto objected
6 to a specific person participating, and that person
7 no longer participated.

8 A The letter came from CropLife, an
9 agency of which we are a -- or a trade association
10 of which we are a member. The specific reasons for
11 his non-participation, EPA we never spoke out
12 about.

13 Q Mons -- Monsanto --

14 A Well, actually, they said he was
15 unavailable. I'm sorry. That was their statement,
16 he was unavailable.

17 Q There was another, if I recall
18 correctly and you can tell me if I'm wrong, but
19 there was another person that Monsanto objected to
20 participating in the SAP; correct?

21 A This, again, was a CropLife letter to
22 EPA that noted that Kenneth Portier, another one of
23 the people on there, and I believe the letter
24 simply asked EPA to ensure he was impartial, as his
25 brother was on the IARC -- he was the invited

1 specialist for the IARC Monograph panel that looked
2 at glyphosate.

3 Q So I mean, that -- that's a bit odd;
4 right? I mean, why would you be concerned that
5 someone's brother would have a conflict? Is that a
6 -- is that a -- is that a thing that you have to
7 worry about?

8 A Again, this is a CropLife letter sent
9 on behalf of CropLife, but what -- the concern that
10 they expressed was can he be impartial. You know,
11 Dr. -- Dr. Kenneth Portier, the person in question,
12 has a long history of working on EPA panels, so it
13 was really just a matter of that letter asking is
14 he truly impartial.

15 Q Okay. And you would agree that the
16 Scientific Advisory Panel that was convened and did
17 review the OPP's report was -- was a group of good
18 scientists?

19 A So I don't have personal experience
20 with those people. Monsanto's position is you want
21 to have the best science in front of a -- a
22 impartial group of people at the Science Advisory
23 Panel so they can conduct an adequate peer review.

24 Q Does Monsanto have any evidence or
25 reason to believe that the SAP was not impartial?

1 A No, it simply -- the concern that
2 industry expressed prior to it was just to make
3 sure, please make sure you've done all -- taken all
4 efforts to make sure this is impartial.

5 Q Now, before the SAP was convened,
6 Monsanto's CEO, Hugh Grant, met with the EPA;
7 correct?

8 A That is my understanding, yes.

9 Q And he specifically asked the EPA not
10 to convene the SAP; correct?

11 A Um, my understanding is that Mr.
12 Grant shared the industry's concern that there was
13 no SAP necessary, but if it did occur, please make
14 sure it is unbiased and scientifically balanced.

15 Q Okay. I'm handing you Exhibit 87.
16 This is a copy of the Scientific Advisory Panel
17 report; correct?

18 A That is correct.

19 Q And this is a document that you
20 yourself -- and this is -- this -- just on the --
21 before I move off from the chart we're looking at,
22 and you can see up here on the screen, sir, that
23 this is the SAP that's under -- that's -- that's
24 reviewing the OPP work; right?

25 A Yes, they are reviewing OPP's work.

1 Q All right. Do you need to review
2 this quickly or can we just get right into it?

3 A If, I mean, if we -- if we get into
4 significant amounts of detail, I -- I have read
5 this previously. If there's particular sections,
6 I'd like to be able just to take a quick look at
7 them --

8 Q Let's do that.

9 A -- before we start questions. Sure.
10 Is there a --

11 Q Just -- no, we'll just -- as we go
12 through, I'll stop and let you look at it before
13 you answer; okay? Will that work?

14 A Okay. That's fair.

15 Q I mean, otherwise --

16 A Yeah, this is not --

17 Q -- we'll be here all day.

18 A Yeah.

19 Q All right. So you'd agree this is a
20 fairly substantial report?

21 A It -- it is --

22 Q 99 pages; right?

23 A Yeah, 99 pages. It's a lot of
24 reading.

25 Q Okay. And it was issued on March 16,

1 2017; right?

2 A That's correct.

3 Q And I asked you earlier, did you --
4 in your opinion, do you believe that it was
5 critical of the OPP report, and you didn't -- you
6 said you didn't think it was?

7 A Based on my reading of this, you
8 know, some of the panel members will say OPP, you
9 should do it this way; others will say you should
10 do it that way. And that's really what it's about.
11 It's about giving feedback to OPP on how did you do
12 your job.

13 Q Okay.

14 A It's a peer review.

15 Q Okay. And if you look on the second
16 page, it actually, I believe, has all the members
17 that were there.

18 Do you see that?

19 A Oh, yes, I -- I do see that, yes.

20 Q All right. And we have a bunch of --
21 well, it looks like everyone's a PhD; right?

22 A Yes, according to the information
23 here.

24 Q I just want to be clear. Were any of
25 these individuals listed here ever a consultant for

1 Monsanto?

2 A You know, I'm -- I'm not aware of
3 any. Some of them, you know, in the past may have
4 worked with the company but I am not aware of any
5 contractual arrangements.

6 Q Which ones in the past may have
7 worked with Monsanto?

8 A Oh, I'm just saying there's -- you've
9 got a lot of people here. What I'm saying is if
10 you have some information, I -- I'm just personally
11 not aware of any -- I have not reviewed any
12 contracts between --

13 Q Okay.

14 A -- these people and Monsanto.

15 Q Fair enough. So you don't know is
16 fine. I -- I just --

17 A Yeah.

18 Q Okay. That's fine. All right.
19 Okay. And just sitting here today, does Monsanto
20 have any objections about any of these people's
21 participation on this advisory panel?

22 MR. BRENZA: Vague.

23 A Could you -- could you help me
24 understand what you mean by objection? Just, I
25 mean, at this point, it's in the past, so it is

1 what it is.

2 Q (BY MR. WISNER) Is there anybody
3 here that Monsanto takes issue with being a part of
4 this?

5 MR. BRENZA: Beyond the scope.

6 A Yeah, I -- I'm not really prepared to
7 go person by person in here. I -- I was at the
8 meeting. I saw the review.

9 Q (BY MR. WISNER) Okay.

10 A Speaking in my own capacity, I saw
11 some people make good comments, I saw some people
12 make comments I didn't feel were productive.

13 Q Okay. And i didn't know this but you
14 were actually there.

15 A I was there for the week.

16 Q You heard them testify and discuss
17 different things; right?

18 A Yes, I did.

19 Q Okay. So here's the report, and it
20 reflects the -- the meeting between December 13th
21 through 16th; right?

22 A That's correct.

23 Q Okay. All right. So the first part
24 I want to focus in on is just sort of understanding
25 some -- some basic background and it will be

1 relevant to this document in a second but the first
2 thing is you understand that the EPA is supposed to
3 follow specific guidelines; right?

4 A Could you be more specific about in
5 what capacity? Like as they're doing what part of
6 their job?

7 Q Well, there's a -- there's a written
8 guideline for assessing carcinogenicity.

9 A Yes, they are. Yes.

10 Q And those are written -- it's a
11 written document that kind of says here's how
12 you're supposed to do your job?

13 A Yes.

14 Q And are you aware that -- that --
15 that those guidelines were actually, in part,
16 authored by Dr. Christopher Portier?

17 A No, I was not aware of who the
18 authors are on that.

19 Q Okay. And you understand he is -- he
20 -- he was the invited specialist at IARC during the
21 monograph; right?

22 A Yes, I do understand that.

23 Q You also understand that subsequent
24 to his participation in IARC, he has been
25 testifying on behalf of Plaintiffs, saying that, in

1 fact, Roundup can cause cancer?

2 A I am aware of that.

3 Q Okay. Okay. And if we -- if we --
4 if we open up the -- the document, in the
5 Introduction on page 11, you see that there's
6 Welcome and Opening Remarks.

7 Do you see that?

8 A Yes, I see that.

9 Q And that was by Jack Housenger;
10 right?

11 A That's correct.

12 Q And he was the director of the OPP;
13 right?

14 A That's correct.

15 Q And he's someone that Monsanto has
16 had significant personal interactions with.

17 MR. BRENZA: Vague. Beyond the
18 scope.

19 A Yeah, I'm not sure about personal
20 interactions of any sort. What I can tell you is
21 we interact with regulatory agencies and the people
22 that work there to discuss science and the
23 proceedings in front of them and how our products
24 are proceeding through a review.

25 Q (BY MR. WISNER) In fact, I mean, I

1 -- you guys have produced text messages between
2 your regulatory guys and -- and Mr. -- Dr.
3 Housenger; right?

4 A I have seen those.

5 Q Right. And so -- I mean, I've
6 actually looked at text messages. I actually have
7 this guy's cell phone number. I could text him if
8 I want to now, couldn't I?

9 MR. BRENZA: Calls for speculation.

10 A Yeah, I'd be guessing as -- I'm
11 sorry. I'd be guessing as to whether or not that's
12 still his number. I don't know.

13 Q (BY MR. WISNER) Okay. Fair enough.
14 I -- and I -- and I hope it's not. But my -- my
15 real question, though, is do -- do you think that's
16 a little bit too close of a relationship?

17 MR. BRENZA: Calls for speculation.

18 Beyond the scope.

19 A I cannot speak to how Dr. Housenger
20 feels about that. That is his decision as an EPA
21 employee. It's one way of communicating with
22 people.

23 Q (BY MR. WISNER) All right. And if
24 you turn to page 12, there is a section about
25 Public Comments.

1 Do you see that?

2 A I do see that.

3 Q And you see that there was about 28,
4 looks like, comments were offered or statements
5 were offered?

6 A Yes, that is correct.

7 Q And you would agree that a lot of
8 these different off -- these things were done by
9 various chemical companies?

10 A Industry representatives were present
11 and provided testimony, yes.

12 Q You got Dr. Farmer who showed up?

13 A Yes, she was there.

14 Q Dr. Acquavella?

15 A Yes, he was there.

16 Q Dr. Kirkland?

17 A Yes, he was there.

18 Q These are all on behalf of the
19 Monsanto Company; right?

20 A That is correct.

21 Q And there was, I guess, one, two,
22 three, four other doctors in addition to those
23 three?

24 A That is correct.

25 Q And then we have people from Nufarm

1 Americas; right?

2 A That is correct.

3 Q And it keeps going. CropLife
4 America; right?

5 A That is correct.

6 Q Dow --

7 A And in -- in addition to
8 environmental groups that were opposed to any
9 decision in favor of glyphosate.

10 Q Okay. We got the National Growers
11 Association; right?

12 A National Corn Growers?

13 Q Yeah.

14 A Yes, they were there.

15 Q They're a -- they're a -- they're
16 pro-GMO group?

17 A They are a corn grower representative
18 group. They support technology and access to
19 technology for their members.

20 Q That's pro-GMO?

21 A That's access to technology. They
22 are there to ensure the economic well-being of
23 their members.

24 Q Okay. So --

25 A That's the purpose of their trade

1 association.

2 Q A GMO is a technology?

3 A Yes, it is.

4 Q Okay.

5 A They support access to it but they
6 are -- they are not -- they support the idea that
7 their members have access to a technology that they
8 want to use. If they use not to use it, the corn
9 growers are still supportive of them.

10 Q Okay.

11 A It's not a mandatory requirement to
12 be part of the corn growers.

13 Q Okay. Anyway, you have a bunch of
14 different -- we have Syngenta.

15 Do you see that?

16 A I do see that.

17 Q DuPont?

18 A Where is -- that's after Consumers
19 Union?

20 Q Number 10.

21 A Is that after USDA.

22 Q It's number 10.

23 A Number 10, I -- oh, I see that.

24 Q You see DuPont?

25 A I see DuPont, and as well as

1 Consumers Union, USDA, Moms Across America, Beyond
2 Pesticides, yes, there's many people here.

3 Q Okay. I didn't ask about any of
4 those. I don't know why you decided to tell me
5 about them. I just asked you, DuPont is on here,
6 number 10; correct?

7 A Yes. I just think it's important to
8 understand there's a broad range of interests being
9 represented here.

10 Q As --

11 A Providing testimony.

12 Q Is --

13 A DuPont is one of them.

14 Q Okay. We have some other -- we have
15 Natural Resources Defense Council, for example,
16 right?

17 A That is correct.

18 Q And they're a -- you know, they're
19 pro-environment; right?

20 A I'm not a member of them. I can't
21 speak for what their goals are.

22 Q Okay. I myself have been a member of
23 NRDC for a long time?

24 A All right.

25 MR. BRENZA: Move to strike.

1 Q (BY MR. WISNER) We have Number 25,
2 Bayer Crop Science.

3 You see that?

4 A I do see that.

5 Q That's who you're currently employed
6 by; right?

7 A That is correct.

8 Q Okay.

9 A He appeared alongside Organic
10 Consumers Association.

11 Q I'm sorry? Organic Consumers
12 Association went with Bayer to testify?

13 A No, they were all up on the dais at
14 the same time. I'm just making sure people are
15 clear there was a range of opinions here. This
16 isn't --

17 Q Oh, I wasn't suggesting otherwise,
18 but you say --

19 A Mm-hmm.

20 Q -- they're at the dias, you mean they
21 were testifying at the same -- I don't understand.

22 A They were right next to each other as
23 -- everyone gave testimony in batches, and they
24 were together in a group.

25 Q Gotcha. Okay. All right. So

1 anyway, so we have this executive summary and --

2 A Mm-hmm.

3 Q -- you know, I understand in these
4 reports they sometimes say, you know, some panel
5 members said X, some panel members said Y, right,
6 kind of describing that various people had
7 different opinions?

8 A That's correct.

9 Q Okay. But occasionally it -- it says
10 the panel concluded; right?

11 A I -- I have seen that language
12 previously.

13 Q And that means that they all agreed?

14 A Um --

15 MR. BRENZA: Beyond the scope.

16 A Yeah, you'd -- you'd have to be
17 speaking to EPA to make sure you understood exactly
18 what they meant by that. This is their report.

19 Q (BY MR. WISNER) Okay. Turn to page
20 18. This is a section under "The laboratory animal
21 carcinogenicity studies for glyphosate"; right?

22 A That is correct.

23 Q Okay. If you just want to take a
24 look quickly through that section, I'm going to ask
25 you a few questions about it. Probably don't have

1 to read the whole thing, but if you just need a
2 quick --

3 A Yeah, just make sure we've got
4 everything here. All right.

5 Q All right. So I just want to be
6 clear. If you turn on page 18.

7 A Mm-hmm.

8 Q There's a paragraph that begins
9 "Overall."

10 Do you see that?

11 A I do see that.

12 Q That sentence reads, "Overall, the
13 Panel concluded that the EPA evaluation does not
14 appear to follow the EPA Cancer Guidelines in
15 several ways, notably for use of historical control
16 data and statistical testing requirements."

17 Do you see that?

18 A I see that statement.

19 Q Doesn't say some panel members, it
20 said "the Panel"; right?

21 A Again, that is the word on the page.
22 EPA is in control of this document. They would be
23 the authority on what exactly they mean with
24 specific phrases like that.

25 Q Do you know why the EPA wouldn't

1 follow their own guidelines?

2 A So I was in the room and I've -- I've
3 read this document and this refreshed my memory of
4 it. One of the things they were talking about is
5 the -- is the way these studies are being analyzed
6 in the original report that -- so this report's now
7 been revised based on this feedback and has
8 undergone public comment. So this is a
9 two-generation prior version of the document
10 they're talking about here.

11 One of the concerns the panel member
12 -- some of the panel members are raising is that
13 they wanted to see each individual animal study
14 handled the same way. You know, their concern was
15 that different criteria were being used to judge
16 different animal studies.

17 And so what they were asking for was,
18 you know, please come up with a very simplified
19 evaluation scheme similar to what's in the -- the
20 guidelines for carcinogen risk assessment, and just
21 follow that in a clear way for each of the studies.

22 Q Okay. So at least the SAP has
23 concluded that the EPA was not following the
24 guidelines, at least in the initial report?

25 MR. BRENZA: Asked and answered.

1 A Yeah, again, it was they were asking
2 them to go through and make sure each study was
3 being evaluated the same way according to the
4 carcinogen guideline -- the -- the carcinogen risk
5 assessment guidelines.

6 Q (BY MR. WISNER) Okay. Because I --
7 I actually read the rest of that paragraph and I
8 don't --

9 A Mm-hmm.

10 Q -- see any of what you just said in
11 there.

12 A Well, it's -- it's -- it's contained
13 in here and that's part of the problem. So --

14 Q It's talking about use of historical
15 control data and statistical testing; right?

16 A Yes, that's correct. So using -- so
17 with the historical controls, use the same
18 approach.

19 Q Yes.

20 A If we're looking at dose responses,
21 use the same approach. And then two, when they
22 talk about statistical testing, they're bringing up
23 making sure you control for false positives as a
24 result of multiple comparisons.

25 There is a great deal of discussion

1 of the statistics involved in multiple comparisons
2 and its ability to lead to false positives.

3 Q But the original report did look at
4 multiple comparisons.

5 A No, they -- so one of the things they
6 -- they talked about there with, I believe it was
7 Silverman, was a statistician. Several of the
8 statisticians weighed in on this point. That the
9 way they were doing it needed to be refined. And
10 so one of the panel members, maybe two of the panel
11 members, shared methodology with EPA staff to
12 revise their statistics to account for multiple
13 comparisons, and then that is reflected in the
14 responses to this and then the updated white paper.

15 Q Okay. Well, I'm not actually looking
16 at the updated white paper. It's not very
17 different than the original.

18 A It has --

19 MR. BRENZA: Move to strike.

20 A So, you know, we'd have to have a
21 side by side to do that sort of thing. My
22 recollection, speaking for myself, not the company,
23 is that the -- the statistics have been updated
24 according to the advice they received.

25 Q (BY MR. WISNER) Okay. Well, one of

1 the other issues that the OPP was doing when it
2 looked at the animal carcinogenicity data, is that
3 if any of the rodents had received a dose above a
4 thousand milligram/kilograms per day, those tumors
5 observed in those rodents weren't really considered
6 a real risk.

7 You recall that; right?

8 A I recall a discussion about the
9 relevance of higher doses than 1,000 milligrams per
10 kilograms per day.

11 Q And that -- that is actually a
12 violation of the EPA guidelines, isn't it?

13 A Not necessarily. So this is another
14 one that received a great deal of discussion there
15 about how do you consider very high doses that
16 exceed 1,000 milligrams per kilogram. EPA's modern
17 studies, you know, when you show up -- you show up
18 tomorrow with a new rat study, that's what they'll
19 ask for. A thousand is the cap.

20 In the past that did not exist. That
21 was not a convention in toxicology at the time and
22 so doses would exceed that. And so then they
23 wrestled with this question of how do we handle
24 studies from the past that go beyond what we ask
25 for now.

1 Q But when you look at the tumors, at
2 the actual doses that were used above 1,000, you do
3 start seeing statistically significant, relevant
4 incidences of tumors in animals; right?

5 A EPA -- so at the -- at the SAP there
6 was -- again, there was a great deal of discussion
7 of that and people were asking can we really
8 consider those as being relevant to a risk
9 assessment. Do they actually tell us anything.

10 Q I know, because if you don't look at
11 it, if you don't go behind that door, right,
12 there's no risk, but if you do look at them, you
13 agree there -- there are indications of there being
14 increased incidences of tumors in these animals;
15 right?

16 MR. BRENZA: Argumentative. Move to
17 strike.

18 A Yeah, I -- I do not agree with that
19 judgment.

20 Q (BY MR. WISNER) Okay.

21 A This is simply a question of you --
22 you have studies that were following -- that were
23 doing things one way in the past, they're using
24 very high doses. Now we don't even ask for that
25 high of a dose. How do we account for that in a

1 modern risk assessment.

2 Q (BY MR. WISNER) How is it science to
3 go retroactively and ignore tumors because, well,
4 we changed the rules this time? How is that
5 science?

6 A It's not necessarily a question of
7 ignoring tumors. That inform -- if -- if you have
8 information like that, it's -- it's always
9 considered. But the question is, can I consider
10 these relevant? Can I consider this to be an
11 actual positive finding?

12 It's -- it's a scientific debate
13 among toxicologists about how EPA should interpret
14 data from an older study versus a newer study.
15 They're not saying we ignore data. They're just
16 saying --

17 Q It's not relevant?

18 A -- they're just saying -- well, the
19 concern is that when you cross a thousand
20 milligrams per kilogram as a dose, what do we know
21 about what we're seeing here.

22 Q I mean, it sounds like, I -- I call
23 it ignore, you call it irrelevant. For the
24 purposes of assessing carcinogenicity risk, those
25 -- those are the same things --

1 MR. BRENZA: Mischaracterizes the
2 testimony. Move to strike.

3 A The -- it -- it's really not -- so
4 it's -- this is a scientific discussion. It's not
5 a question of ignore. This is a question about how
6 you consider the data.

7 Q Okay.

8 A And that's what these scientists are
9 discussing.

10 Q (BY MR. WISNER) And scientifically,
11 the EPA determined that tumors in these animals
12 above a thousand milligrams per day were not
13 biologically relevant; correct?

14 A I would -- I would not agree with
15 that characterization.

16 Q In fact, if you go through this -- go
17 through the EPA's report, discusses all these tumor
18 findings and then says, yeah, but they're not
19 treatment related. Each time, doesn't it?

20 A They talk about it not being
21 treatment related but they're not necessarily
22 referring just to 1,000 milligrams per kilogram.

23 Q Almost --

24 A The Europe -- European regulators
25 actually brought in their own assessment, looking

1 at similar results and similar conclusions. They
2 shared it with EPA. EPA was able to consider that
3 as well.

4 Q Okay. I didn't ask about Europeans
5 at all. I asked about what the EPA did. And the
6 EPA, for the large part, concluded anything over a
7 thousand milligrams was -- was irrelevant; right?

8 A And so --

9 MR. BRENZA: Asked and answered.

10 A Yeah, again, we'd -- we'd have to
11 have the most recent risk assessment in front us to
12 be able to determine how they did that accurately.

13 Q (BY MR. WISNER) When we turn to the
14 next page, page 19 -- you there?

15 A I am there.

16 Q See the -- the first full Panel --
17 the first full paragraph reads "The Panel"?

18 A I do see that.

19 Q All right. If you go down, all the
20 way down there, it says "Based on"?

21 Do you see that? Bottom right?

22 A Okay. Yeah, I do see that.

23 Q "Based on EPA Cancer Guidelines, some
24 members of the Panel concluded it is questionable
25 whether results from exposures greater than 1,000

1 milligrams per day, but less than doses
2 corresponding to 5 percent in diet, should be given
3 less weight. Many Panel -- Many members of the
4 Panel concluded not considering or discounting
5 tumor responses at doses that exceeded 1,000
6 milligrams/kilograms a day is not consistent with
7 either EPA Cancer Guidelines or standard ways in
8 which bioassay results are typically interpreted.
9 They note that the dose limit is included in the
10 guidelines as a design criterion and it is not
11 advisable to exclude observed data post hoc from
12 the analysis and interpretation of experimental
13 results."

14 Do you see that?

15 A I see that. You would have to go to
16 -- there is actually a document where EPA responds
17 to all these comments and they walk you through how
18 they changed everything. That would -- and the
19 final risk assessment, of course, that would tell
20 you how they considered this.

21 Q Yeah. And many of these independent
22 panel members, these scientists who the EPA has
23 brought in to peer review their work, they're
24 criticizing and saying you can't discount data
25 because it's above 1,000 milligrams per day --

1 MR. BRENZA: Asked and answered.

2 Q (BY MR. WISNER) -- right?

3 A Again, there -- there is an actual
4 document where EPA responds to these comments and
5 then they show you how they changed their report in
6 response to it, and then you have the final report.
7 That's what would be -- that's what EPA is working
8 towards now.

9 Q (BY MR. WISNER) Isn't it true that
10 even the most recent report, the EPA still
11 discounts any tumors above 1,000 milligrams per
12 day?

13 A We -- we'd have to have that in front
14 us to be able to make sure we're getting that
15 correct.

16 Q Okay. So you don't know?

17 A I don't have -- I don't have that
18 report memorized.

19 Q Okay. All right, Doctor. So -- so
20 we have all these different groups that are sort of
21 looking at these issues in different ways in the
22 US, and the OPP report, it's still technically not
23 final; right?

24 A It is -- it's an interim report
25 that's been out for public comment. Now we're

1 waiting for a revised.

2 Q Yeah, so we're -- still haven't got
3 the final report from the OPP; right?

4 A Yeah, the overall conclusions have
5 not changed.

6 Q All right. We do have the final SAP
7 report, though?

8 A That is -- that is the document we
9 were reviewing there.

10 Q Okay. Okay, great. So let's talk
11 about the EPA a little bit and then we can be done
12 for the -- done with -- done with my questioning.
13 Okay?

14 A All right.

15 Q Now, we discussed this earlier, but
16 there are text messages between various EPA
17 officials and Monsanto; correct?

18 A That is my understanding.

19 MR. WISNER: Okay. I got to -- I --
20 we got to go off the record.

21 THE VIDEOGRAPHER: We are going off
22 the record at 3:07 p.m.

23 (A recess was taken.)

24 THE VIDEOGRAPHER: We are back on the
25 record at 3:09 p.m.

1 Q (BY MR. WISNER) Doctor, I have
2 handed you the next exhibit. I believe it's 88.

3 A That's correct.

4 Q This is a series of text messages;
5 correct?

6 A That is correct.

7 Q And these were text messages pulled
8 from Mr. Dan Jenkins' cell phone; correct?

9 MR. BRENZA: Beyond the scope.

10 A Yeah, I -- I don't -- I'm not seeing,
11 you know, as with an email where you have an
12 identifier, I don't see -- I've seen this document
13 before but I don't where the -- the part where it
14 just identifies this as being Dan's phone, so -- or
15 Mr. Jenkins' phone.

16 MR. WISNER: Okay. Well, we'll go
17 off the record and you guys can get me a witness
18 that can verify this document.

19 MR. BEROUKHM: No, we won't. You
20 can continue.

21 MR. WISNER: I provided this document
22 four months ago and asked you to provide a witness
23 to talk about it and the witness says he doesn't
24 know what it is. So --

25 A No, I -- I've seen this document

1 before. I'm just saying I don't know where you're
2 getting the information that it's from doc -- or
3 Mr. Jenkins' phone.

4 Q (BY MR. WISNER) We've been told that
5 by your counsel. We've been told that by Mr.
6 Jenkins.

7 A Okay.

8 Q And I'm assuming you would know that
9 too.

10 A I -- I've reviewed this document. I
11 can -- I can tell you that.

12 Q Okay. Continue to review this
13 document.

14 A And so if it is from -- from Dan
15 Jenkins' phone, that's our understanding.

16 Q I need to authenticate that fact with
17 you. That's the problem.

18 A Sure.

19 Q And if you can't authenticate that --
20 MR. BRENZA: That's not -- that's not
21 one of the subjects that he's here to testify
22 about. He's not a custodian of records.

23 MR. WISNER: Okay, I gave you this
24 guy's document four months ago and asked you to
25 give me a witness to talk about it.

1 MR. BRENZA: I mean --

2 MR. WISNER: It's literally about
3 glyphosate for your regulatory official with the
4 EPA. So if you're going to tell me this guy can't
5 talk about this, this is nonsense. Can you please
6 just go confer and confirm that this is in fact
7 from Mr. Jenkins' phone? Or you're not going to do
8 that?

9 MR. BRENZA: Well, if you -- we can
10 take this up after the deposition, but I -- we're
11 not going to stop now to go do that. And the fact
12 that this may have been given to us in a -- in a
13 huge stack of documents, I mean, we've -- we've --
14 I don't think you have any credible argument that
15 Mr. Reeves has not prepared himself exceptionally
16 well for this deposition. He's prepared to answer
17 these questions to the extent he can and other than
18 that, if -- if you think something more needs to be
19 done, we can take it up afterwards.

20 Q (BY MR. WISNER) You read Dan
21 Jenkins' deposition; right?

22 A I have read his deposition.

23 Q In his deposition he testified this
24 was from his phone, didn't he?

25 A And this -- I remember him discussing

¹ that. If this is that -- those MONGLY numbers --

2 MR. WISNER: Great, that's all we
3 need.

4 MR. BRENZA: I mean, that's something
5 -- something you could have easily represented to
6 him.

7 MR. WISNER: I -- I can't
8 authenticate the document.

9 MR. BRENZA: If you have Dan Jenkins'
10 deposition and you know this is an exhibit he
11 testified about, you could say here's Dan Jenkins
12 depo document.

13 MR. WISNER: Okay. Okay, fine. Let
14 me just do that then.

15 THE WITNESS: Okay.

16 Q (BY MR. WISNER) I'm representing to
17 you this was, in fact, the document shown to -- to
18 Mr. Jenkins in his deposition and he testified that
19 this was from his phone. Do you have any reason to
20 dispute that?

21 A No, I do not.

22 Q Okay. All right. Now, there's a lot
23 of text messages in here and I -- and I don't want
24 to spend too much time going through all of it but
25 I do want to talk about a few of them; okay? And

1 the first one is -- well, let's start on page
2 ending in 247. Are you there?

3 A Yes, I am.

4 Q All right. And the way it works is
5 this says "Message, Outgoing," and that means it's
6 something being sent from the phone, and then
7 there's an "Incoming" that means the message is
8 coming in; okay?

9 A Okay.

10 Q So "Message, Outgoing, Yep" -- okay,
11 well, I actually don't want to talk about that. So
12 going down here, it says -- all right. So it says
13 right here, "Message, Outgoing," on 2015, January
14 8.

15 Do you see that?

16 A Okay, I do see that.

17 Q Goes, "Yep, but don't need to if we
18 have a good program and the time for it to work.
19 In the meantime get state administered plans that
20 preserve FTO per 4(d) and fight against any notion
21 that ge/gly caused the problem and require massive
22 buffers and warnings on labels for killing
23 butterflies."

24 Do you see that?

25 A I do see those words, yes.

1 Q Do you know what this "killing
2 butterflies" things is about?

3 A Based on the date and the fact that
4 in -- who is in this discussion, this is about a
5 petition to list the Monarch butterfly as
6 endangered in the US.

7 Q Okay. And is that because Roundup is
8 causing their decline? Or do you know what's going
9 on with that?

10 A No, there are -- the data available
11 on Monarch populations in their overwintering areas
12 in Mexico indicates a population decline. Some of
13 the researchers who work with Monarch butterflies
14 have hypothesized that but they have not been able
15 to support that fully.

16 Q Okay. Does Mon -- just does Monsanto
17 have a position about it? Or you don't know?

18 A Our -- our position on that is we are
19 actively working with our customers to establish
20 Monarch butterfly habitat and farmland across the
21 US and we've contributed over \$3 million towards
22 that effort.

23 Q Okay. I was just sort of curious.
24 I'm happy -- you know, I just didn't know.

25 A Sure.

1 Q All right. So we -- go down here, it
2 says, "Just" -- next one says, "Incoming --
3 Message, Incoming," and it says -- and it's from
4 Tracey Reynolds.

5 Do you see that?

6 A I do see that.

7 Q Okay. "Just had IARC call. Have you
8 discussed this with Bradberry" (sic).

9 Do you see that?

10 A I have seen that.

11 Q Who is Tracey Reynolds?

12 A At this point, Tracey Reynolds, she
13 was actually my boss. She was the head of
14 regulatory policy and scientific affairs.

15 Q Okay. And then do you know who
16 Bradberry is?

17 A Based on this, Brad -- Bradberry is a
18 -- Steve Bradbury, he is one of our consultants at
19 Iowa State University working on Monarch butterfly
20 issues.

21 Q Gotcha, okay. And then it goes, the
22 next one is a "Message, Incoming," it's from
23 Jennifer Listello.

24 You see that?

25 A I do see that.

1 Q Who is Jennifer Listello?

2 A Jennifer Listello is in our
3 regulatory affairs group and a -- our chemistry
4 regulatory affairs group.

5 Q So she works on, for example, Roundup
6 with the EPA?

7 A Yes, that is correct.

8 Q And she writes, "Is there anyone we
9 can get to in EPA?"

10 Do you see that?

11 A I do see that.

12 Q And then you -- looks like there's an
13 outgoing message to Jennifer Listello. "I sent him
14 an email. He's somewhat familiar with IARC, will
15 talk to him Monday. Re EPA" -- oh, "Monday. Re
16 EPA: I've called them 5 times on this issue and
17 Dykes has called them too. They're not going to be
18 proactive."

19 Do you see that?

20 A I do see that.

21 Q Okay. Then looks like another
22 message from Jennifer Listello. "Have we asked
23 them for the documents they were given for the
24 meeting?"

25 Do you see that?

1 A I do see that.

2 Q And appears that Mr. Jenkins responds
3 "Yes."

4 A Okay, I see.

5 Q Do you see that?

6 A I do see that.

7 Q Okay, good. Then there's some --
8 some personal conversations and then looks like
9 there's an outgoing message to Christina Lawrence.

10 You see that?

11 A I do see that.

12 Q What is -- who is Christina Lawrence?
13 Do you know who that is?

14 A Yes. She was on the regulatory
15 policy and scientific affairs team. Well, she was
16 the lead of our -- our international team for that
17 group.

18 Q Okay. And looks like he sends a
19 message to her. "Yep, I'm at EPA now for
20 glyphosate."

21 Do you see that?

22 A I do see that.

23 Q And this is dated March 30th, 2015?

24 A I do see that.

25 Q So this is after the public

1 announcement of the IARC classification?

2 A That is correct.

3 Q Okay. Do you know what Mr. Jenkins
4 communicated with -- to EPA at that meeting?

5 A That, I am not aware of. I believe
6 there is information on the docket at EPA that --
7 where they shared a slide deck that we presented,
8 but that -- whether or not that was this meeting, I
9 don't know.

10 Q Okay. All right. So let's turn to
11 the next page, jump ahead quite a bit. Do you know
12 who Mary Manibusan is?

13 A Yes, she is a consultant at -- oh,
14 I'm trying to remember the name of the company.
15 The -- Exponent.

16 Q Okay. And she formerly worked at the
17 EPA?

18 A That is my understanding, yes.

19 Q In the OPP; right?

20 A You know, I'm not exactly sure what
21 her role was at EPA.

22 Q Okay. And Mary Manibusan was
23 actually helping Monsanto and consulting with
24 Monsanto with regards to EPA issues?

25 A It -- it could be, from this. I

1 haven't seen the actual document. I know we work
2 with Exponent, the company she works for.

3 Q Okay. All right. So the one saying
4 "Message, Outgoing," it's on -- looks like it's
5 June 18, 2015.

6 You see that?

7 A Yes, I do see that.

8 Q And that's to Mary Manibusan.

9 You see that?

10 A I do see that.

11 Q And Mr. Jenkins says, "Hi Mary, do
12 you know folks at ATSDR in HHS?"

13 Do you see that?

14 A I do see that.

15 Q And that's that -- that agency that
16 was looking at glyphosate that we talked about
17 within the CDC?

18 A That's correct.

19 Q Okay. And then she says, "Yes.
20 Where specifically?"

21 You see that?

22 A I do see that.

23 Q And then he responds, "On Tox
24 Profiles."

25 You see that?

1 A I do see that.

2 Q And then she responds -- or then
3 looks like he says "yep" for some reason and she
4 responds, "It's been a while but I can."

5 Do you see?

6 A Yes, I do see that.

7 Q And then looks like she sends another
8 message right after that, "Sweetheart - I know lots
9 of people. You can count on me."

10 You see that?

11 A I do see that.

12 Q And then it looks like she says --
13 and then he says, a message to her, "We're trying
14 to do everything we can from having a domestic IARC
15 occur with this group. May need your help."

16 Do you see that?

17 A I do see those words on the page.

18 Q A domestic IARC, that would be a -- a
19 determination by ATSDR that Roundup is a probable
20 human carcinogen?

21 MR. BRENZA: Calls for speculation.

22 A Yeah, I -- I'd be guessing if I had
23 to put myself in -- into what is Dan trying to say
24 here, or what is Mr. Jenkins trying to say here.
25 The -- my knowledge of ATSDR, in many cases, when

1 they look at a pesticide, they are looking back to
2 EPA to understand what did the agency conclude.

3 In some cases they will rely on that
4 very heavily. In some cases I have seen where
5 they, I don't -- they did not do the -- they did
6 not reach the same conclusion as EPA and it was
7 unclear as to whether or not they had reviewed
8 EPA's risk assessment.

9 Q (BY MR. WISNER) Okay. We actually
10 have a -- a discussion, an email that kind of
11 discusses what they were talking about. I'm giving
12 you Exhibit 89.

13 A All right.

14 Q Please take a look at that and let me
15 know when you're ready to discuss.

16 A Sure.

17 Q And keep those text messages handy,
18 we are going to go back to them.

19 A Going back, okay.

20 Q Yeah.

21 A All right. I'm ready.

22 Q All right. So this is a series of
23 internal email communications within Monsanto;
24 correct?

25 A Yes, that is correct.

1 Q And these documents were created in
2 the regular course of business; right?

3 A It appears so.

4 Q Okay, great. And if we start at the
5 very back of this proceeding -- well, starting on
6 page ending in 698.

7 You see that?

8 A Yes, I do see that.

9 Q This is an email from Michael Dykes.

10 You see that?

11 A I do see that.

12 Q Monsanto employee?

13 A Yes, he is.

14 Q And he's --

15 A He was at the time.

16 Q Okay. And he -- he issued -- he's --
17 it's titled a Report on Follow Up Discussion.

18 You see that?

19 A I do see that.

20 Q And then down here it says, "I then
21 asked for an update on ATSDR. He said they had --
22 they had checked with ATSDR and they were in fact
23 doing a glyphosate review."

24 You see that?

25 A I do see that.

1 Q Okay. "I explained that this
2 confirmed what we already understood but our
3 question was about the purpose and scope of such a
4 duplicative review by ATSDR. I told him that we
5 were concerned that ATSDR may come out any day with
6 a report."

7 You see that?

8 A I do see that.

9 Q And this is back in 2015; right?

10 A Yes, it is.

11 Q Okay. So over three years ago?

12 A That is correct.

13 Q Okay. And then Dan Jenkins responds.

14 You see that?

15 A 697, let's make sure I got this --

16 Q Yeah.

17 A Yes.

18 Q And he -- he says, "Can you clarify
19 what you're referring to with -- regarding reports
20 from ATSDR? They're not scheduled to put out
21 anything (sic) for public comment until October -
22 has this been accelerated?"

23 Do you see that?

24 A That is correct.

25 Q And then Michael Dykes responds, "The

1 person I talked with at HHS said they had checked
2 with ATSDR and confirmed their review of
3 glyphosate. I explained that their review was
4 duplicative and I was now concerned about another
5 glyphosate review coming any day. He said he
6 didn't know when but didn't expect anything out of
7 ATSDR for at least two weeks."

8 Do you see that?

9 A I do see that.

10 Q Okay. And then we have this email
11 from Dan Jenkins.

12 Do you see that? The next page.

13 A Yes, I do see that.

14 Q And it's dated June 23rd, 2015.

15 Do you see that?

16 A Yes, I do.

17 Q And he said, "Spoke to EPA." Right?

18 A Yes.

19 Q "ATSDR Director and Branch Chief have
20 promised Jack Housenger (Director of the US Office
21 of Pesticide Programs) to put their report 'on
22 hold' until after EPA releases its preliminary risk
23 assessment (PRA) for glyphosate."

24 Do you see that?

25 A I do see that.

1 Q So it looks like Mr. Jenkins was
2 speaking with Dr. Housenger at the OPP; correct?

3 A Well, he -- he spoke to EPA. It's
4 unclear whether this came straight from Dr.
5 Housenger or from someone else.

6 Q Okay. And according to what Mr.
7 Jenkins is saying here, is Jack Housenger reached
8 out to the ATSDR and they said they would hold off
9 on the report until the EPA did its report; right?

10 MR. BRENZA: Calls for speculation.

11 A It -- it doesn't say exactly how this
12 occurred. It's -- it describes communications
13 between the ATS -- ATSDR Director and Branch Chief
14 and the Director of the Office of Pesticide
15 Programs but it doesn't -- it doesn't say exactly,
16 you know, who talked -- you know, who was calling
17 whom or -- or where this information specifically
18 came from.

19 Q (BY MR. WISNER) Okay. It reads on,
20 "EPA will not have the final meeting of its
21 internal cancer review technical group until after
22 the IARC Monographs are published, and thus will
23 not put out the PRA until after this (guessing this
24 would mean around mid-August)."

25 Do you see that?

1 A I do see that.

2 Q And then it says, "ATSDR has cited a
3 GAO Audit report in arguing that their process is
4 distinguishable and not duplicative."

5 Do you see that?

6 A I do see that.

7 Q "They look at different endpoints and
8 told EPA they don't 'make a call on cancer,' but I
9 think we should continue to be cautious."

10 Do you see that?

11 A I do see that.

12 Q All right. So then Bill Heydens, Dr.
13 Heydens, responds; right?

14 A I see that.

15 Q He writes, "Distinguishable and not
16 duplicative? Seriously? And I will believe the
17 not 'making a call on cancer' part when I see it.
18 Anyway, at least they know they are being watched,
19 and hopefully that keeps them from doing anything
20 too stupid."

21 Do you see that?

22 A I see those words on the page.

23 Q Okay. Was it Monsanto's practice and
24 policies to let agencies know they were being
25 watched?

1 A No, it is not Monsanto's practice or
2 policy.

3 Q Okay. So then Daniel Jenkins
4 responds; right?

5 A Yes.

6 Q He says, "Completely agree. Mary
7 Manibusan told me yesterday that EPA has had
8 several issues in the past with ATSDR coming to
9 different conclusions. She said they tried to
10 execute several memorandums of understanding but
11 were unsuccessful. She describes ATSDR as being
12 very conservative and IARC like in regard (sic), as
13 well as the fact that they are hazard based."

14 Do you see that?

15 A I do see that.

16 Q This "Makes me very nervous, but I
17 asked Jack whether or not he was worried about
18 ATSDR coming out with something different and he
19 said he wasn't and I think he was being genuine."

20 Do you see that?

21 A I do see that.

22 Q All right. So Mr. Jenkins is -- is
23 apparently having conversations about what Dr.
24 Housenger at the EPA thinks the ATSDR is going to
25 do.

1 MR. BRENZA: Calls for speculation.

2 A He says he asked Jack, Dr.

3 Housenger's first name is Jack, but beyond that, it

4 -- Mr. Jenkins is not more specific.

5 Q (BY MR. WISNER) Okay. So let's go

6 back to these text messages. All right. Okay.

7 And it looks like, if you turn to the page ending

8 in 250?

9 A Yes, I see that.

10 Q All right. And we see close to the

11 bottom -- well -- well, I'll stop right there. You

12 see actually in the middle -- middle part of this

13 we have a series of text messages and they're

14 actually, looks like they're with Jack Housenger,

15 aren't they?

16 A Okay. Okay. Let me -- let me just

17 make sure I understand how that's set up. So

18 outgoing gives you the date, the time, the

19 statement, and then it says who it went to; is that

20 correct?

21 Q That's right.

22 A Okay. So that -- this would -- this

23 is saying this message went to Jack Housenger.

24 Q Yeah. For example, it says right

25 here, on September 23rd, 2015, Mr. Jenkins texted

1 Jack Housenger, "Dr. Oz is airing a segment
2 tomorrow on glyphosate safety."

3 You see that?

4 A I do see that.

5 Q And then it looks like he texted him
6 again, "Had my guy call and leave a message" -- I'm
7 sorry, that's -- yeah. "Had my guy call and leave
8 a message for Anne Overstreet." Or he said, I "Had
9 my call -- guy call and leave a message for Anne
10 Overstreet."

11 Do you see that?

12 A I do see that.

13 Q Do you know who Ann Overstreet is?

14 A No, I do not.

15 Q Do you know if she works at --

16 A That's an unfamiliar name.

17 Q Sorry.

18 A Sorry.

19 Q Do you know if she works at ATSDR?

20 A Sorry. Yeah, that's not a familiar
21 name to me.

22 Q Okay. Then it looks like he sent
23 another message to -- to Jack Housenger, "We will
24 be posting a statement as soon as it airs."

25 Do you see that?

1 A I do see that.

2 Q And then it looks like another
3 message, "Cancer and IARC will come up."

4 Do you see that?

5 A I do see that.

6 Q And then looks like he sends a
7 message, this one looks like it's to Ty Vaughn;
8 right?

9 A Yes, that is correct.

10 Q And this appears to be the same day
11 as his texting to Mr. Housenger?

12 A Yeah, those -- these messages were
13 sent on the same day.

14 Q And Mr. Jenkins says, "Spoke to EPA;
15 is going to conclude that IARC is wrong. So is
16 EFSA. EPA should be coming out in the first or
17 second week of October."

18 Do you see that?

19 A I do see that.

20 Q I mean, is that -- is that common
21 practice for a registrant like Monsanto to know
22 about the results of an EPA report before it comes
23 out?

24 A I -- I can't speak for how frequently
25 other companies discuss risk assessments with EPA,

1 you know, the outcomes of them. At Monsanto one of
2 our roles in Washington, DC, is to go talk to the
3 agency to get information to find out when risk
4 assessments will occur, when things will publish,
5 and see if you can find out and get a sense of are
6 they going to approve a use or, you know, allow,
7 you know, a product onto the market. And so that
8 would have been doc -- Mr. Jenkins' job, is to go
9 find out information like that.

10 Q Would it be common for Mr. Jenkins to
11 be letting the director of the OPP know about a
12 television show going on the air?

13 A It -- it -- it may have been for --
14 for Mr. Jenkins. We don't have a policy at the
15 company either way.

16 Q All right. So then --

17 A It would be up to him.

18 Q -- at the bottom of this -- we're
19 getting close to being done here -- we have an
20 outgoing message, do you see that, to Ty Vaughn
21 again?

22 A Yes, I do see that.

23 Q And just to be clear, who is Ty
24 Vaughn?

25 A Ty Vaughn, at this time, is the head

1 of -- let me make sure I get this straight. He is
2 -- so he is the -- the head of our regulatory -- so
3 he's the head of the regulatory branch of a larger
4 organization. Is regulatory and government
5 affairs, so he's got the regulatory side.

6 Q Okay. So he's kind of over the -- a
7 lot of the regulatory interactions with the EPA?

8 A Yeah, so that would -- that would be,
9 for example, Dan Jenkins would have reported to Ty.

10 Q Okay. And then it says, "Spoke to
11 EPA re gly"; right?

12 A Yes.

13 Q And that he says again, "Jones is
14 being briefed next then released PRA (still
15 October)."

16 You see that?

17 A That is correct.

18 Q He says next, "They will publish full
19 IARC analysis."

20 Do you see that?

21 A I do see that.

22 Q And then he says, "They feel they
23 aligned EFSA on phone call."

24 Do you see that?

25 A I do see that.

1 Q Do you know what that means?
2 A It -- so the -- they are familiar
3 terms here. What I'm trying to understand is, you
4 know, is -- is Dan texting -- he's not necessarily
5 texting in full sentences, so it becomes a bit of a
6 problem. So PRA refers to a preliminary risk anal
7 -- a risk assessment. Then he refers to a -- in
8 that -- that, to my understanding, is the CARC
9 report. At the time, that was our understanding is
10 that would be the risk assessment. Because that's
11 the standard practice.

12 "Publish a full IARC analysis," I
13 don't know what that refers to. There's -- EPA has
14 never released something like that. They just
15 release the CARC report.

16 Q Okay. Let me stop you there.

17 A Okay.

18 Q I wasn't asking about those ones.

19 A Oh, I'm sorry.

20 Q I appreciate you telling me that. I
21 was asking about the one that I read, "They feel
22 they aligned EFSA on phone call."

23 Do you know what he's referring to
24 there?

25 A That I do not know.

1 Q Do you know if the EPA placed any
2 pressure on EFSA to reach a specific conclusion?

3 A Yeah, I am not aware of anything
4 along those lines.

5 Q Okay. Then it says, "Pushed them to
6 make sure ATSDR is assigned, they said they would."

7 Do you see that?

8 A I do see those words.

9 Q Okay. Is it your understanding that
10 the FDA -- I'm sorry, the EPA agreed to ensure that
11 the ATSDR was aligned?

12 A I have -- I have never heard any --
13 in my personal capacity, I have never heard anyone
14 at EPA saying they were going to tell ATSDR what to
15 do.

16 Q Okay. All right. I don't want to go
17 through all these, but let's just go through one
18 more document --

19 A All right.

20 Q -- and I think we can take a -- take
21 a quick break. So I'm handing you Exhibit --
22 Exhibit 90.

23 A All right.

24 Q And actually, before I hand this to
25 you, I just want to ask you what you know -- know

1 about a guy named Jess Rowland.

2 A My understanding is he was an EPA
3 employee and -- okay, making sure. And he worked
4 for the Office of Pesticide Programs and he was one
5 of the people who signed the final CARC report.

6 Q Okay. So he was one of the people
7 that was -- obviously played some sort of role in
8 generating the CARC's analysis?

9 A Yes, he was part of that process.

10 Q Okay. And that was the preliminary
11 risk assessment we were talking about in those text
12 messages?

13 A That -- that was my understanding,
14 yes.

15 Q Okay. And I'm handing you Exhibit
16 90. Take a look at that, let me know when you're
17 ready to discuss it. I only have three, I'm sorry.

18 MR. BRENZA: Okay, sure.

19 MR. WISNER: Oh, no. I actually have
20 two more.

21 MR. BRENZA: Thank you.

22 A All right.

23 Q (BY MR. WISNER) All right. We
24 really are almost done. Okay. So you have Exhibit
25 90. This is a series of email exchanges within

1 Monsanto; correct?

2 A That is correct.

3 Q And an email exchange that involves
4 Dr. Heydens?

5 A That is correct.

6 Q Jenkins and Jennifer Listello?

7 A That is correct.

8 Q Okay. And these documents, these
9 emails were exchanged in the regular course of
10 Monsanto's business; correct?

11 A That is correct.

12 Q All right. I want to draw your
13 attention to an email from Dan Jenkins dated April
14 28, 2015.

15 Do you see that?

16 A I do see that.

17 Q And he says, "Hey - cc'ing Jen. So
18 Jess called me out of the blue this morning."

19 Do you see that?

20 A I do see that.

21 Q And this is referring to Jess
22 Rowland?

23 A Yes, that is -- that is my
24 understanding.

25 Q And then it starts with a quotation

1 mark.

2 Do you see that?

3 A I do see that.

4 Q And just to be clear, this is dated
5 April 28th; right?

6 A Yes, it is. April 28th.

7 Q So this is before IARC has published
8 its -- it's monograph?

9 A Yes, they've issued a press release
10 but not the monograph.

11 Q And the monograph is like an 80- or
12 90-page document describing all the things that
13 IARC thinks about glyphosate?

14 A That's correct.

15 Q Okay. And so obviously Jess Rowland
16 here doesn't have the benefit of that final
17 publication yet; right?

18 A Yeah. So at this point he wouldn't
19 know what specific studies IARC relied on to reach
20 their conclusions.

21 Q Okay. It says, "We have enough to
22 sustain our conclusions. Don't need gene tox or
23 epi. The only thing is the Cheminova study with
24 the sarcoma in mice - we have that study now and
25 its conclusions are irrelevant (because at limit

1 dose?" -- I'll stop right there.

2 Did I read that right?

3 A Those are the words on the page.

4 Q "Because at limit dose," that's that
5 1,000 milligram issue we were discussing earlier;
6 right?

7 MR. BRENZA: Calls for speculation.

8 A Yeah, it -- it could be. You know, I
9 think here we've got Dan, despite his use of -- or
10 Mr. Jenkins, despite his use of quotes, seems to be
11 paraphrasing. This isn't written in complete
12 sentences.

13 Q (BY MR. WISNER) Okay. But limit
14 dose, that's -- that's one of the issues we were
15 discussing in the SAP report; right?

16 A Yes, a limit dose is --

17 MR. BRENZA: Calls for speculation.

18 A So I can define "limit dose" for you,
19 and that would be it. "Limit dose" is where you're
20 saying I'm going to stop dosing animals in the
21 study. It can be a -- it can be a range of values.
22 It just depends on the specifics of a given study.

23 Q (BY MR. WISNER) It's a little weird,
24 if this is true, it's a little weird for an EPA
25 scientist to be asking for a rationale for

1 disregarding a tumor finding in a rat study; right?

2 MR. BRENTA: Mischaracterizes the
3 document.

4 A Again, I -- I'm not sure this is --
5 I'm not sure Dan is accurately transcribing what he
6 heard. It could also be interpreted that Dan is
7 saying because of limit, you know, like Dan doesn't
8 understand the basis, Dan was -- his training was
9 as an attorney and as an entomologist, so he
10 wouldn't know toxicology. So he may be guessing
11 here is what I'm saying.

12 Q (BY MR. WISNER) Okay. "I am the
13 chair of the CARC and my folks are running this
14 process for glyphosate in reg review."

15 Do you see that?

16 A I do see that statement.

17 Q All right. I'm going to jump to the
18 next -- next paragraph. "Also, Jess called me for
19 a contact name at ATSDR." And that's that agency
20 we've been discussing for a while; right?

21 A That's correct.

22 Q Says, "I passed on to -- I passed on
23 Jesslyn's email. He told me no coordination is
24 going on and he wanted to establish some saying,
25 'If I can kill this, I should get a medal.'"

1 You see that?

2 A I see those words on the page.

3 Q And they're in quotation marks?

4 A I see quotation marks around those
5 words.

6 Q Did you guys ever give Jess a -- Jess
7 -- Jess Rowland a -- a medal?

8 A № --

9 MR. BRENZA: Move to strike.

10 A My understanding is that Dr. Rowlands
11 does not recall ever saying this to Dan, based on
12 his previous testimony.

13 Q (BY MR. WISNER) Okay. Well, for
14 what it's worth, this is dated April 2015; right?

15 A That is correct.

16 Q So we're coming up to four years from
17 then and ATSDR still hasn't issued its report.

18 A Yeah, all we know is that it's out
19 for peer review and they've named the peer
20 reviewers.

21 Q So even though if it's not -- it's
22 not totally dead yet, at least been in a coma for
23 four or five years.

24 MR. BRENZA: Move to strike. Beyond
25 the scope.

1 A I can't -- I can't speak to the exact
2 state. Actually Anneclair De Roos from the
3 Agricultural Health Study, and then also De Roos,
4 et al, is one of the peer reviewers.

5 Q (BY MR. WISNER) Okay. You know Dr.
6 De Roos has signed a statement saying she agrees
7 with IARC; right?

8 A I am -- I am unaware of anything
9 she's done. I'm just repeating what's on that web
10 page.

11 Q Okay. All right. Dan, "Wow! That's
12 very encouraging. Thanks for the news update."

13 Do you see that?

14 A I do see that.

15 Q All right. So I have two -- two more
16 documents, sorry, I lied to you I only have the
17 last one, but I'm very close to being done. I am
18 handing you Exhibit 91, but isn't it true that,
19 before I hand this to you, Monsanto knew that Dr.
20 Rowland at the EPA was planning to retire soon?

21 A I am unaware of our knowledge that we
22 had about Dr. Rowland's retirement plans.

23 Q I'm handing you Exhibit 91. Take a
24 look at that, let me know when you're ready to talk
25 about it?

1 A All right.

2 All right, I'm ready.

3 Q All right. So this is an email
4 exchange within Monsanto; correct?

5 A That is correct.

6 Q It's dated in September 2015?

7 A That is correct.

8 Q Goes from Mr. Jenkins to a
9 significant number of Monsanto employees?

10 A Yes, there are a number of Monsanto
11 employees in the -- who are on the receiving list
12 here.

13 Q Okay, great. And it's a -- and this
14 document was sent in the regular course of Mr.
15 Jenkins' business; right?

16 A That is my understanding.

17 Q Okay. And he writes right here, "No
18 questions but Dr. Jess Rowland at EPA is quite
19 proud of their recent endocrine conclusions and is
20 also on point regarding their IARC response."

21 You see that?

22 A I do see those words.

23 Q "Jess will be retiring from the EPA
24 in 5 to 6 months and could be useful as we move
25 forward with ongoing glyphosate defense."

1 Did I read that right?

2 A I see those words.

3 Q So Monsanto knew he was retiring?

4 A Dan Jenkins was aware that he was
5 retiring and so he was sharing that information
6 here.

7 Q And proposing that he would be very
8 useful for ongoing glyphosate defense; right?

9 MR. BRENZA: Beyond the scope. Move
10 to strike.

11 A Okay. He's -- those are the words on
12 the page. You know, from time to time we hire
13 consultants based on their expertise.

14 Q (BY MR. WISNER) But he's still at
15 the EPA at this point; right?

16 A Yes, he is.

17 Q And even though he's still at the EPA
18 and he's in charge of the CARCs assessment at the
19 EPA, you have Daniel Jenkins saying that he'll be
20 retiring soon and that he might be useful for
21 glyphosate defense; right?

22 MR. BRENZA: Beyond the scope. Calls
23 for speculation.

24 A I -- I have no information in front
25 of me to say that there was any conversation with

1 -- with Dr. Rowlands about him being a consultant
2 for us.

3 Q (BY MR. WISNER) While he was working
4 at the EPA?

5 A Yeah, I am unaware of any
6 conversations actually about him working as a
7 consultant for us.

8 Q This email suggests that there might
9 have been one; correct?

10 MR. BRENZA: Asked and answered.

11 A Yeah, again, I have no information to
12 indicate that Monsanto had a conversation with Dr.
13 Rowlands about being a consultant for us.

14 Q (BY MR. WISNER) All right. I give
15 you Exhibit 92.

16 A All right.

17 Q I actually do only have one of these.
18 I apologize. Please, sir, take a look at it, let
19 me know when you're ready to talk.

20 And I will just let you know that the
21 way these documents were produced is very odd. I
22 only care about the document ending in 345, but the
23 one on the back is really just gobbledegook. Okay?
24 It's actually an earlier email we've looked at
25 already. So.

1 A Okay.

2 Q So I'm really just looking at the
3 email --

4 A Okay.

5 Q -- on this side.

6 A I understand.

7 MR. BEROUKHM: Is this because of
8 the way it was photocopied? Or is this the way it
9 was produced?

10 MR. WISNER: The way it was produced.

11 MR. BEROUKHM: I see.

12 MR. WISNER: So I -- it is what it
13 is.

14 MR. BEROUKHM: I see.

15 MR. WISNER: The image you guys gave
16 us had -- had this on the back of it. Had two
17 pages and this is gobbledegook. I don't know why.

18 MR. BEROUKHM: Okay. Sorry. Sorry
19 to interrupt.

20 MR. WISNER: No worries.

21 Q (BY MR. WISNER) Let me know when
22 you're ready to discuss it.

23 A I am.

24 Q Okay. So this is an email exchange,
25 looks like it -- the first email exchange is an

1 email from Jack Housenger to Daniel Jenkins; right?

2 A That's correct.

3 Q And the Subject is "ATSDR"; right?

4 A That is correct.

5 Q And this is in June 2015; right?

6 A That is correct.

7 Q And this is when we saw those emails
8 and the text messages where they were concerned
9 about a domestic IARC; right?

10 A This is -- this is, I believe that
11 was in April when they were talking about --
12 talking about ATSDR.

13 Q So this is the next month?

14 A Two months later.

15 Q Okay, sorry. Two months later. And
16 the email from Dr. Housenger was sent to Daniel
17 Jenkins and then Daniel Jenkins apparently
18 forwarded it on to Dr. Heydens and Jennifer
19 Listello.

20 A That is correct.

21 Q Is -- is Jennifer Listello a -- a
22 doctor?

23 A Not to my knowledge. No.

24 Q Okay. "FYI."

25 Do you see that?

1 A I do see that.

2 Q All right. So this email that Dr. --
3 sorry, excuse me. This email that Mr. Jenkins was
4 -- was -- was writing and -- and sharing with other
5 Monsanto employees was done as part of his regular
6 work; right?

7 A That is my understanding, yes.

8 Q Okay. And then we have here, "Dan,
9 here is everyone I talked to. Henry was the one
10 who ended up saying that they would put glyphosate
11 on hold holding the OPP risk assessment release.
12 Hope this helps."

13 Do you see that?

14 A I do see that.

15 Q And then he lists all these different
16 people that he spoke to.

17 A That is correct.

18 Q So it looks like the director of the
19 OPP was trying to help Monsanto put the ATSDR risk
20 assessment on hold.

21 MR. BRENZA: Calls for speculation.

22 Beyond the scope.

23 A I -- I don't believe that would be --
24 that it's necessarily what we're seeing here is Dr.
25 Housenger trying to help Monsanto. He's providing

1 this information about a conversation he had.

2 Q (BY MR. WISNER) It says, "Hope this
3 helps."

4 You see that?

5 A Yeah. It -- "Hope" -- it -- so it's
6 not clear exactly what Dr. Housenger is -- is
7 meaning by that. Speaking my own personal
8 capacity, when I say "Hope this helps," I mean hope
9 this answers your question. Hope this helps ans --
10 that's how I personally use it.

11 Q Sure, but there's -- there's --
12 there's answering your question and then there's
13 telling somebody what they did; right? And here
14 he's describing all these different people that he
15 spoke to.

16 Do you see that?

17 A I -- I see the words on the page.
18 What I'm saying is I -- I can't interpret what Dr.
19 Housenger meant.

20 Q Well, you agree this sure looks like
21 Dr. Housenger was helping Monsanto, talking to
22 multiple people, to hopefully put a hold on their
23 assessment?

24 MR. BRENZA: Asked and answered.

25 A I would not agree with that

1 assessment.

2 MR. WISNER: Okay. Let me take a
3 short break and then I'll probably turn the witness
4 over.

5 THE VIDEOGRAPHER: We are going off
6 the record at 3:45 p.m.

7 (A recess was taken.)

8 THE VIDEOGRAPHER: We are back on the
9 record at 4:04 p.m.

10 Q (BY MR. WISNER) All right. Doctor,
11 can you pull up the text message exhibit. I just
12 want to go through a few last ones and then we'll
13 wrap this up.

14 A Yes.

15 Q So if you turn to the page ending in
16 -- all right, turn to page ending in 251.

17 A Okay.

18 Q Okay. And then you see there is a
19 discussion, it's a -- looks like it's a outgoing
20 message from Dan Jenkins on October 1st, 2015.

21 Do you see that?

22 A I do see that.

23 Q To Philip Miller.

24 Do you see that?

25 A I do see that.

1 Q And he says, "Remember that ATSDR
2 said it would render its view in October as well."

3 Do you see that?

4 A I do see that.

5 Q And then he says -- he says in the
6 next text message also to Philip Miller -- who --
7 who's Philip Miller?

8 A He is the director of regulatory and
9 -- at this time, he was the director of regulatory
10 and government affairs for Monsanto.

11 Q Okay. And it says, "Told EPA to
12 please reach out and keep them aligned."

13 Do you see that?

14 A I do see those words.

15 Q So isn't it true that in fact
16 Monsanto reached out to the EPA and asked them to
17 make sure that the AS -- ATSDR was aligned?

18 MR. BRENZA: Calls for speculation.

19 A Yeah, but I -- I can say that those
20 words that you read appear here. Because it's a
21 text message, it's hard to know, you know, if
22 you're not actually the person in the conversation,
23 what do they mean, but I -- I would agree those
24 words appear on this page.

25 Q (BY MR. WISNER) Okay. And then if

1 you turn to the next page ending, sorry, two pages
2 over, ending in 253.

3 Do you see that?

4 A Yes, I do.

5 Q All right. And you see there's a
6 text message on December 2nd, 2015?

7 A Yes, I do see that.

8 Q And it's incoming and it's from
9 Philip Miller; right?

10 A That's correct.

11 Q And that -- and Philip Miller, just
12 to be clear, that is -- that would be Jenkins's
13 boss; right?

14 A Yes.

15 Q Okay. He says, "We need to share
16 with EPA political and career staff they need to
17 get glyphosate PRA out now they are losing
18 credibility."

19 Do you see that?

20 A I do see that.

21 Q And then looks like there was
22 actually quite a few people on that text message
23 and then there's an incoming text message, also
24 again from Philip Miller.

25 You see that?

1 A I do see that.

2 Q Apparently a few seconds later.

3 Says, "CBS news asked Hugh today if glyphosate
4 causes cancer. Let them know they are failing
5 their duty to the public."

6 Do you see that?

7 A I do see those words.

8 Q "Hugh," that's Hugh Grant.

9 MR. BRENZA: Calls for speculation.

10 A Based on my memory --

11 Q (BY MR. WISNER) Yeah.

12 A -- as -- in my personal capacity, my
13 memory is, yes, that is Hugh Grant.

14 Q Okay. Then looks like there's an
15 outgoing message from -- from Mr. Jenkins.

16 Do you see that?

17 A I do see that.

18 Q "Speaking to Jack in about an hour.
19 We are in a meeting now working on drafting a
20 response. Speaking to scientist tomorrow morning."

21 Do you see that?

22 A I do see that.

23 Q Do you know if the "scientist" he's
24 referring to is Jess Rowland?

25 A No, I do not know who that refers to.

1 Q Okay.

2 A I don't -- and I also, I don't know
3 if that's EPA, if that's internal to Monsanto, I
4 don't know what's referring to.

5 Q Okay. Well, that's helpful. And I
6 guess the -- sort of the last thing, if you could
7 go to the earlier page ending in 252? You there?

8 A Yes, I am.

9 Q All right. There is an incoming
10 message you see on November 17, 2015?

11 A Yes, I do see that.

12 Q And it says, "Dan - who was the woman
13 at EPA that presented with you in Italy this past
14 summer? Is she someone who has any influence over
15 the process at EPA re gly?"

16 Do you see that?

17 A I do see that.

18 Q That was from Ty Vaughn?

19 A That's correct.

20 Q Also Jenkins's boss?

21 A He -- well, he was in the management,
22 I don't believe he was over -- well, no, I'm sorry,
23 let me think. He would have been his boss at the
24 time. He was -- Dan was within Ty's part of the
25 organization, yes.

1 Q Okay. And then looks like he
2 responds, "Mary Manibusan. She's ex EPA and no she
3 cannot influence the process. Mary is a toxicology
4 consultant that works for Exponent."

5 You see that?

6 A I do see that.

7 Q Okay, great. And then there's
8 another outgoing message from Dan.

9 You see that?

10 A I do see that.

11 Q This is apparently a -- six minutes
12 later?

13 A It -- it appears so, yes.

14 Q Okay. And he says, "According to
15 Bradbury" -- and stop again. Who is that Bradbury
16 again?

17 A He's the consultant at Iowa State
18 University.

19 Q Okay. Says, "According to Bradbury,
20 what we need to do is get some key Democrats on the
21 hill to start calling Jim. This helps in several
22 ways: Focuses on gly and gets him to move; shoots
23 across his bow generally that he's being watched
24 which is needed on several fronts and finally sets
25 the stage for possible hearings. I laid this all

1 out yesterday with Michael before our call and he
2 agreed."

3 Do you see that?

4 A I do see those words.

5 Q Do you know what -- who Michael he's
6 referring to?

7 A Let's see. So earlier we -- we had
8 the mention of Michael Dykes, and so that is my
9 under -- my understanding would be this would be
10 Michael Dykes from our Washington, DC, office where
11 Dan works.

12 Q And so it looks like they were laying
13 out a plan to work with key democrats on the hill
14 to let them know that they were being watched;
15 right?

16 MR. BRENZA: Calls for speculation.

17 A Yeah, this would be -- just because
18 it's a text message and you don't have, you know,
19 very complete sentences, this would be something
20 that Dan, I think, can shed light on better than me
21 but I -- I do see those words on the page.

22 Q (BY MR. WISNER) So again we have
23 another reference to people being watched.

24 Do you see that?

25 A I see the word "watched" on this

1 page.

2 Q And we saw a reference similar to
3 that with Dr. Heydorn; right?

4 A I'm sorry, what was the name again?

5 Q Sorry, Dr. Heydens. We saw
6 somewhere --

7 A Oh, oh.

8 Q -- an email with that, with Dr.
9 Heydens; correct?

10 A Yes, Dr. William Heydens.

11 Q Okay.

12 A I remember seeing the word "watched"
13 in one of his emails.

14 Q Sorry. Let me give that to you
15 correctly. I always -- there's another litigation
16 with a guy named Heydorn. That's -- that's where
17 it came from. And he's also a doctor.

18 A I understand.

19 Q So, sorry. So we saw a similar email
20 with the word "watched" by Dr. Bill Heydens;
21 correct?

22 A I saw the word "watched" in one of
23 Bill Heydens' emails.

24 Q Okay, great.

25 A And I think here, you know, the

1 question I just -- that I have about this, just not
2 being able to interpret it very well, is, you know,
3 are they using these things colloquially as part of
4 a text or, you know -- that's always the problem
5 with a text message.

6 MR. WISNER: Okay. Well, Doctor,
7 thank you for your time. It's been a long couple
8 of days. I appreciate your -- your time.

9 THE WITNESS: All right. Thank you.

10 MR. BRENZA: Passing the witness?

11 MR. WISNER: I pass the witness.

12 THE WITNESS: All right. Thank you.

13 MR. BRENZA: Let's go off the record
14 for a moment.

15 THE VIDEOGRAPHER: We're going off
16 the record at 4:11 p.m.

17 (A recess was taken.)

18 THE VIDEOGRAPHER: We are back on the
19 record at 4:25 p.m.

20 EXAMINATION

21 QUESTIONS BY MR. BRENZA:

22 Q Good afternoon, Dr. Reeves.

23 A Good afternoon.

24 Q It's been a long day. You feeling
25 okay?

1 A I do.

2 Q Okay. You've -- you've gone quite a
3 number of hours being questioned by Mr. Wisner, who
4 represents Plaintiffs. I'm going to give you a
5 chance to say some things that you didn't get a
6 chance to get out when you were being asked
7 questions by Mr. Wisner; okay?

8 A Okay.

9 Q So let's start with your -- some
10 stuff about your personal background. How long
11 have you -- well, who do you work for?

12 A I work for Bayer Crop Science now.
13 Prior to that it was Monsanto.

14 Q How long had you worked for Monsanto?
15 A I started in 2007, so now it's been
16 twelve years.

17 Q Where do you live?

18 A In St. Louis.

19 Q Are you married?

20 A Yes, I am.

21 Q Do you have family in the area?

22 A Yes, I do. We have two daughters and
23 I also have my parents are here and then some
24 aunts, uncles, and cousins.

25 Q Where did you grow up?

1 A In St. Louis as well.

2 Q Where did you go to high school?

3 A Kirkwood High School.

4 Q Do you use Roundup personally?

5 MR. WISNER: Objection. Relevance.

6 A Yes, I do.

7 Q (BY MR. BRENZA) And you use it at
8 your -- your home in St. Louis?

9 A Yes, I do.

10 Q How do you use it there?

11 MR. WISNER: I -- I -- just -- just
12 so I won't keep interrupting him, just going to
13 continuing objection to any discussion of his use
14 or family members' use of Roundup. So go ahead.

15 A So could you repeat the question for
16 me, please?

17 Q (BY MR. BRENZA) How do you use
18 Roundup at your home?

19 A I have -- I have two main ways I use
20 it. One is in general maintenance, but then also
21 I've used it to establish gardens. We have a
22 pollinator garden that I put in. We also have a
23 bird bath garden. And then there's also a native
24 plant area, that I used Roundup to establish those
25 by getting rid of the grass.

1 Q Do you mix your own Roundup or do you
2 use the rated spray for adding?

3 A I mix my own from concentrate.

4 Q How do you -- how do you mix it when
5 you mix it?

6 A This is -- so the instructions on the
7 container say six ounces of the concentrate per
8 gallon of water, and so then what I do, there's a
9 little measuring cup that comes with it, I pour the
10 Roundup concentrate into that at the six ounce mark
11 and then I pour that into -- it's a -- a plastic
12 pump sprayer that I already have a gallon of water
13 in.

14 Q And how long have you been mixing and
15 using Roundup at your home?

16 A About twelve years.

17 Q During that twelve years, about how
18 many times per year have you mixed and sprayed
19 Roundup?

20 A Typically, it's about five or six per
21 season.

22 Q And in all that time, all those
23 times, have you ever spilled any Roundup on
24 yourself?

25 A No, I have not.

1 Q Has your sprayer ever caused a -- a
2 leak that got Roundup on you while you were
3 spraying?

4 A No, it has not.

5 Q Have you had problems with Roundup
6 drifting while you were spraying?

7 A No, I have not.

8 Q How would you know if you did?

9 A If -- if it did, you would see dead
10 vegetation or at least damaged vegetation.

11 Q Do you have any concerns about your
12 children or your pets or your neighbors as a result
13 of using Roundup in your home?

14 A No, I do not.

15 Q Okay. Let me -- let's -- we'll come
16 back to some other issues about Roundup and its
17 safety in a little while but I want to get into a
18 little of your personal background.

19 A Okay.

20 Q Let's start with your education.

21 Where did you go to college?

22 A At the University of Missouri.

23 Q What was your degree in at the
24 University of Missouri?

25 A It was a Bachelor's of Science in

1 biology.

2 Q Did you get a -- a subsequent degree?

3 A Yes, I did.

4 Q What was the subsequent degree?

5 A That was a PhD in toxicology from
6 Texas A&M University.

7 Q Did you get the -- your PhD in
8 toxicology in 2000?

9 A I did.

10 Q Let's -- let's discuss your -- your
11 employment.

12 A All right.

13 Q What was the first job you ever had?

14 A So following college, I worked for
15 the Missouri Department of Conservation. I was a
16 -- a research technician for them.

17 Q What did you do as a research
18 technician for the Missouri Department of
19 Conservation?

20 A All right. At -- at that time, we
21 had just had the flood. There was very large
22 floods along the Missouri River in 1993 and it --
23 you know, essentially we had very large pieces of
24 land next to the Missouri River with a lot of sand
25 on them. They had been farms and they were no

1 longer usable as farms.

2 And so the question was, the state
3 wanted to answer would any of these properties have
4 value as wildlife or as flood control, as wetlands.
5 And so our job was to go out and do scientific
6 studies on those -- on those various properties to
7 understand which ones would have the most value.

8 Q Were you able do that?

9 A Yes, we were.

10 Q As a result of your work, was -- were
11 some of those parcels acquired and conserved by the
12 State of Missouri?

13 A They --

14 MR. WISNER: Object to all this line
15 of questioning.

16 A They were, that is correct.

17 Q (BY MR. BRENZA) What was the next
18 job you had?

19 A Following that, I worked for the
20 University of Missouri, and that was as an
21 environmental health technician.

22 Q And was that in -- from 1995 to 1996?

23 A That's correct.

24 Q What did you do as an environmental
25 health technician at the University of Missouri?

1 A I -- I had two parts to that role.
2 One was doing fire and safety inspections in
3 laboratories, and then the other one was hazardous
4 materials management. And so that was any kind of
5 hazardous material that laboratories or farms would
6 have and we would help them make sure it was being
7 handled appropriately.

8 Q What was the next job you had?

9 A Following that I was a research -- a
10 graduate research associate at Texas A&M University
11 as part of going to graduate school there.

12 Q So that was from 1996 to about 2000?

13 A That's correct.

14 Q What did you do as a graduate
15 research assistant at Texas A&M University?

16 A So mainly what you're doing in those
17 roles is conducting research, you know, that earns
18 you your PhD, and so I had two aspects of my
19 research. We were trying to understand could there
20 be refinements to risk assessments for -- for
21 contaminated sites, specifically sites contaminated
22 with petroleum products. Would there be any way to
23 understand which sites needed clean up the most.

24 You know, right now, and at that
25 time, it was analytical data. Say you have this

1 many contaminants of this type, the one with the
2 most has the most priority.

3 We were trying to understand is there
4 a better way to score that, you know, are these
5 materials binding to soil. You know, these are
6 present as a mixture. Is there something about
7 those mixtures that we could understand that would
8 help say this one is more important than that one.

9 Q So you mentioned mixtures. Was part
10 of your job there to evaluate the behavior of
11 mixtures in a toxicological way?

12 A Yes, it was.

13 Q Did you reach conclusions about the
14 hydrocarbon mixtures that you were working with,
15 about how they behaved as mixtures?

16 A Yes, we did. So the conclusion was
17 that the -- what we were doing was separating them
18 out, you know, so there were components of these
19 mixtures, certain chemicals that are alike, they're
20 part of the same class.

21 We would separate those and then do
22 studies with them to understand, do the activities
23 of the individual mixture components predict
24 overall mixture toxicity. And our conclusion was
25 yes, they did.

1 Q Did you reach conclusions generally
2 about the toxicological properties of mixed
3 compounds as a result of your work?

4 A Yes, my -- my hope was that I'd be
5 able to find that there was some sort of
6 interaction that we didn't know about that needed
7 to be accounted for, but I did not. And one of the
8 things I learned as part of that is such
9 interactions are rare.

10 Q And when you say "such interactions
11 are rare," what does that tell you about how
12 mixtures or formulations behave relative to their
13 components?

14 A So based on our understanding of that
15 and other information from the scientific
16 literature, it -- it tells us that, you know,
17 generally speaking, when I have two substances or
18 more substances where I know about how they behave
19 in the body, that is going to be predictive of how
20 the mixture itself behaves overall in the body.

21 Q What was the next position you worked
22 in?

23 A After that I was a postdoctoral
24 researcher at the University of California at
25 Davis.

1 Q And what did you do there?

2 A At -- at UC Davis I was a -- I was
3 working with the entomology department and the
4 toxicology department. The idea was we wanted to
5 be able to determine the amino acid sequence of
6 very small amounts of protein.

7 We have -- we had the, at that time,
8 we had the ability to isolate small proteins, you
9 know, ones that are being used in signaling, that
10 are only present for a short period of time in the
11 cell, and the idea was if you could isolate those
12 and then sequence them, you could understand more
13 about how they functioned, how they were encoded in
14 DNA.

15 Q What was the -- so after you finished
16 your postdoc research efforts, what was the next
17 job you had?

18 A Then I -- after that I worked for the
19 California EPA, and this was for the State Water
20 Resources Control Board. I was an environmental
21 scientist but my focus was on fresh water
22 standards.

23 Q What -- what office of the California
24 EPA did you work at?

25 A So that was the State Water Resources

1 Control Board. This is the over -- this is the
2 office within California EPA that's responsible for
3 protecting water quality across the state.

4 Q And was there a physical location
5 where you worked?

6 A Yes. That was in Sacramento.
7 Downtown Sacramento.

8 Q Did you live near -- near where you
9 were working?

10 A I did. I lived in Woodland -- well,
11 at first I lived in Davis. And then we moved -- my
12 wife and I moved to Woodland in 2002.

13 Q And are Woodland and Davis, they --
14 they are both close to San Francisco, west of San
15 Francisco? Or east? East of San Francisco?

16 A East, yeah, east of San Francisco.

17 Q Yeah. West is in the ocean.

18 A It's a little tough out there. And
19 they are --

20 MR. WISNER: It's in the bay.

21 A They -- yeah, they are. They're
22 about two miles east of San Francisco. Or I'm
23 sorry, two hours.

24 Q (BY MR. BRENZA) So you were working
25 in, at the California EPA on fresh water standards.

1 How -- how did that -- what exactly did you do with
2 respect to protecting the clean water of
3 California?

4 A We had two functions in our group and
5 -- and I worked on both. One was developing new
6 water quality standards, you know, whether there --
7 there was one that the state was proposing to come
8 up with itself. So this would be, you know, a -- a
9 limit on some pollutant in water when I -- I worked
10 on a heavy metal called selenium, was one of them.
11 The other part of it -- so that was, let's -- you
12 know, we were adopting a new water quality standard
13 or -- or number for a contaminant.

14 The other half of it was reviewing
15 actions by the Regional Water Quality Control
16 Boards. They are the part of the -- of Cal EPA
17 that issues permits, say to a -- a wastewater
18 discharge. Like a sewage treatment plant. And if
19 the entities they had issued the permit to
20 disagreed with the permit, they could appeal to the
21 state and then I would provide a technical review
22 of the complaint and the response to it.

23 Q About how long did you work
24 protecting California's clean water?

25 A It was about --

1 MR. WISNER: Objection. Assumes
2 facts not in evidence.

3 A It was about two years and eight
4 months.

5 Q (BY MR. BRENZA) In that time did you
6 become familiar with something called Prop 65?

7 A I did.

8 Q What is Proposition 65?

9 A So the Proposition 65 is a Safe
10 Drinking Water and Toxic Enforcement Act in
11 California and it is -- it requires businesses to
12 warn, or entities to warn, that when they are
13 causing consumer exposures or when their product is
14 leading to consumer exposures, that are above a
15 certain risk level.

16 Q What was the context in which you
17 became familiar with Prop 65 while you were working
18 at the California EPA in the -- in the Water
19 Protection Board?

20 A When -- when Proposition 65 went into
21 effect in 1986, one of the first questions -- so it
22 prohibits the discharge of certain chemicals to
23 sources of drinking water, and the -- at some level
24 it's very obvious. You know, when we see the
25 Sacramento River, that's a source of drinking

1 water.

2 The question is how far upstream do I
3 go into various tributaries, does that still apply?
4 And so the -- the State Water Board had to clarify
5 that and make a determination, and they determined
6 that anything tributary to one of those water -- to
7 a source of drinking water like the Sacramento
8 River, is a source of drinking water.

9 And then the -- the challenge became
10 there were some situations where that -- it -- it,
11 um -- it created a lot of questions, and so one of
12 the roles I had there was helping to figure out,
13 you know, how do we adequately protect water
14 quality and make sure that the protections are
15 correct for that water body.

16 Q Okay. What was the next position you
17 took after completing your time at the California
18 Water Board?

19 A After that I was -- I took a role
20 with Tetra Tech. It's an environmental consulting
21 firm. And that was -- that was back in St. Louis,
22 which is where I was from originally.

23 Q So you moved -- you moved back to St.
24 Louis at that time?

25 A That's correct.

1 Q And that was 2004?

2 A That's correct.

3 Q And Tetra Tech, what -- it's a -- you
4 said it's an environmental consulting firm?

5 A That's correct.

6 Q What was your position there?

7 A I was a human health and
8 environmental risk assessor.

9 Q What kind of work did you do at Tetra
10 Tech?

11 A We -- we -- so as an environmental
12 risk assessment company, environmental consulting
13 company, we had clients who, you know, had property
14 with leaky underground storage tanks. You think
15 about a gas station or, you know, other facilities
16 that are storing things underground and those will
17 sometimes leak. Certainly in the past they did and
18 so you would have, say, gasoline in the soil.

19 And it was a matter of figuring out,
20 you know, what do we need to do to clean this up to
21 protect human health, you know, what are the --
22 what are the regulatory standards that the state or
23 the federal government has, and how would we
24 accomplish the cleanup to make sure the site is
25 safe again.

1 The other half of it was working on
2 drinking water systems for the US Air Force, and so
3 we were advising them on, you know, how to make
4 decisions about upgrading their water
5 infrastructure to make sure it provided safe
6 drinking water for Air Force employees and airmen.

7 Q Thank you. So am I correct that
8 after you completed your time at Tetra Tech, you --
9 you took a job at Monsanto?

10 A That is correct.

11 Q And what was the first position you
12 had at Monsanto?

13 A I was a biotechnology regulatory
14 affairs manager.

15 Q How did you decide to start working
16 at Monsanto?

17 A Well, they, at that time, you know,
18 the -- much of what they were focused on was,
19 certainly on the biotechnology side, was very
20 interesting to me. They had several projects, one
21 of which I was very interested in was
22 drought-tolerant corn. And I -- they had an
23 opening within the biotechnology regulatory affairs
24 group and because of my background in regulatory
25 work, I decided to apply.

1 Q Did you realize your -- your hope of
2 working on drought-tolerant corn?

3 A I did. That was actually the project
4 I worked on there.

5 Q What -- what exactly did you do with
6 respect to -- well, let's -- let me back up a
7 little bit. What is drought-tolerant corn?

8 A This -- this is a variety of corn
9 that we developed. The idea is that it's more
10 resilient to stress. And so, you know, if you turn
11 the water off on any corn plant and turning --
12 including drought-tolerant corn, you can kill it.

13 The idea was that there are
14 conditions where, you know, things aren't optimal
15 for the plant, you know, it's not the best that
16 year, you're not getting enough rain, this plant
17 would be able to still perform better than it would
18 have otherwise.

19 Q What's the -- what's the benefit of
20 -- of brought tolerant corn?

21 A It's improved yields.

22 Q How does it affect water use in -- in
23 growing crops?

24 A We have some preliminary data
25 indicating that it -- it does -- you can actually

1 irrigate it slightly less and still get performance
2 out of it. But really the benefit comes for the
3 grower, where they're able to, you know, maintain a
4 level of productivity even if the rains don't come
5 that year.

6 Q Are there parts of the world,
7 specific parts of the world, where drought-tolerant
8 corn is particularly useful?

9 MR. WISNER: Object.

10 A So yes, in this part of the world, in
11 the US, it's -- it's typically the central states,
12 Nebraska, Oklahoma, Texas, Kansas, but then also in
13 Africa we have been -- we are -- have a project
14 there, Water Efficient Maize for Africa where we
15 have donated this technology.

16 Q (BY MR. BRENZA) So how does the
17 Water Efficient Maize for Africa program work?

18 A The idea is that Monsanto, in partner
19 with agricultural organizations in Africa, this is
20 Kenya, Uganda, Mozambique, and Tanzania, that these
21 -- the agricultural organizations in those
22 countries, we're partnering with them. The Bill
23 and Melinda Gates Foundation has also joined in,
24 and we're donating this drought-tolerance trait.
25 We're also donating drought-tolerant corn hybrids,

1 as part of a breeding program.

2 Q And when you say "we're donating,"
3 you're talking -- it's Monsanto is donating its
4 technology to that program.

5 MR. WISNER: Objection.

6 A That's -- that's right, it's
7 Monsanto, and now Bayer.

8 Q (BY MR. BRENZA) Okay. And how is
9 that work going?

10 A From what I understand, it's going
11 well. We've also introduced an insect-protected
12 variety there so that they're able to protect the
13 yields of their corn using biotechnology rather
14 than insecticides. Or at least less insecticide
15 than they typically would have used.

16 Q Did you work on anything else while
17 you were in the biotechnology regulatory -- while
18 you were the bio -- biotechnology regulatory
19 affairs manager?

20 A Yes, I did. I worked on
21 insect-protected soybean.

22 Q What's that?

23 A This is a product where, you know, we
24 have a soybean -- you think about growing
25 conditions. This is for South America. Growing

1 conditions there, there are a lot of insects, they
2 damage the crop. If they get inside the pod, a
3 conventional insecticide just won't work, you know,
4 they've got a house they're essentially hiding in.

5 Q Because the insecticide can't get
6 inside the pod?

7 A It cannot.

8 Q Okay.

9 A And so the idea here is that, you
10 know, if you actually make this soybean plant
11 insect-protected, protected from insects, from the
12 inside using biotechnology, the -- the crop is
13 protected and it's less insecticide use.

14 And so what we've seen -- I was
15 working on a second generation product. The first
16 generation one that we've already introduced in --
17 in Brazil and Argentina, the growers are reporting
18 they're using about half the insecticides they had
19 previously.

20 So in a normal year prior to this
21 product, six applications of insecticide a year.
22 Now we're down -- they're saying they're down to
23 three.

24 MR. WISNER: Plaintiffs object to any
25 testimony or discussions -- so I don't have to keep

1 interrupting -- related to genetically modified
2 crops that Monsanto creates that don't relate to
3 Roundup.

4 Q (BY MR. BRENZA) What's the benefit
5 of reducing the need for -- or the number of sprays
6 and insecticide on a crop?

7 A You know, at -- at the simplest
8 level, it's, you know, you're not going to have to
9 drive equipment through your field multiple times a
10 year. You're going to have savings on fuel use.
11 Lower greenhouse gas emissions as a result.

12 Also, when you think about, you know,
13 insecticide application, the farmers just are not
14 having to go out and do that. And so they're able
15 to conserve resources.

16 Q How -- what was your next position at
17 Monsanto?

18 A I -- so I was in the biotechnology
19 regulatory affairs group for -- it was seven years
20 from 2007 to 2014. After that I joined our
21 regulatory policy and the scientific affairs team.

22 Q And what were your duties there?

23 A I was the crop protection safety and
24 outreach lead.

25 Q What -- what were your duties as crop

1 protection safety and outreach lead?

2 A My -- my duties in that role were to
3 go out -- it was a lot of going out and talking to,
4 you know, anyone really, it would be farmers,
5 university researchers, professors, scientists, the
6 general public, high school teachers, high school
7 classes, dietitians, really anyone with an
8 interest.

9 And it would be to talk to them
10 about, you know, what kind -- what -- is there a
11 particular pesticide they're interested in, maybe
12 it's glyphosate. And then be able to answer their
13 questions about it, talk about how EPA regulates
14 pesticide safety, talk about, you know, the
15 protections that are in place, the sorts of data we
16 generate.

17 Q Can you give an example to the jury
18 of one of the projects you accomplished while you
19 were working at -- as the crop protection safety
20 and outreach lead?

21 A Sure. So one --

22 MR. WISNER: Objection.

23 A One of the groups I worked with
24 fairly heavily early on were bee keeping groups,
25 and as we talked to them, one of our understandings

1 became that, you know, they were -- they had
2 financial problems. Part of that is the result of
3 honey prices. You know, this is one of the main
4 things that they are selling from their crop of
5 bees is honey.

16 And they were -- they were wanting
17 the US Food and Drug Administration to create a
18 honey-identity standard to make sure that honey
19 being sold in the US is actually honey, and then
20 that would -- that would actually help them with
21 prices. It would make their businesses more
22 financially viable.

23 MR. BEROUKHIM: Lin, do you want to
24 move those? Is that -- is it being recorded? The
25 -- oh, it's not, okay.

1 A And the, um -- and so they requested
2 this from the US Food and Drug Administration, as
3 Monsanto, then I -- I was pointing out to our -- to
4 our management we should really chime in on this,
5 this is actually a big deal, they have something in
6 common with us, here on this issue about making
7 sure there are uniform standards for protecting the
8 food supply.

9 At the federal level that was
10 something we had a lot of interest in, and so I
11 said let's -- let's submit a letter to FDA in
12 support of this proposal. We did. We were
13 actually the only agri business company to do so.

14 MR. WISNER: I just renew my
15 objection in case it didn't apply to the second
16 answer.

17 Q (BY MR. BRENZA) Was there another
18 part of your work as the crop protection safety and
19 outreach lead?

20 A Yes. The other -- the other thing I
21 was working on there were developing materials that
22 discussed the benefits and safety of our products.

23 Q I'm going to hand you what I'm going
24 to mark as Exhibit 93. Is Exhibit 93 a document, a
25 business record that you prepared when you were

1 working as the crop protection safety and outreach
2 lead?

3 A Yes, it is.

4 Q Is it based on facts and research
5 that you did to prepare it?

6 A Yes, it is.

7 Q And did you prepare it about the time
8 that you acquired those facts and research?

9 A I did.

10 Q Did you prepare it as part of your
11 job?

12 A Yes, I did.

13 Q Was it part of the -- did you prepare
14 it in the ordinary course of -- of business at
15 Monsanto?

16 A I did.

17 Q And was this document marked Exhibit
18 93 used by Monsanto?

19 A Yes.

20 Q How was it used by Monsanto in its
21 business?

22 A We have this posted on our website.

23 We also have this -- we bring copies of this along
24 in booklet form and we share it with audiences.

25 When I go out and talk to groups, I'll bring along,

1 you know, at least one copy to show them and direct
2 them to it. Sometimes I bring along multiple
3 copies to hand out. When we have a trade show or
4 scientific meeting where we have a booth in the
5 exhibition hall, we'll have copies of this
6 available.

7 Q Was -- well, we'll come back -- we'll
8 come back to Exhibit 93 in a minute. Let me -- let
9 me finish your employment history.

10 A Sure.

11 Q What was the next position you held
12 at Monsanto?

13 A Starting in November of 2018, I
14 joined our agricultural affairs and sustainability
15 team and in that -- in that organization I am the
16 global health and safety issues management lead.
17 And so it's -- it's similar to the work I was doing
18 before but it has a -- responsibilities across our
19 portfolio of products rather than just crop
20 protection alone.

21 Q Okay. So let's -- let's discuss a
22 little bit about glyphosate itself.

23 A Sure.

24 Q Is glyphosate an herbicide?

25 A Yes, it is.

1 Q What is an herbicide?

2 A Those are -- herbicides are molecules
3 that you can use or a chemical you can use to kill
4 a weed.

5 Q What's the a -- what's the history in
6 -- of the -- of realizing the weed control
7 potential of glyphosate?

8 A This is a molecule that Monsanto
9 initially discovered its weed control properties.
10 Other companies had developed ways to synthesize
11 glyphosate over the years as part of their own work
12 but they did not realize it could work as a
13 herbicide.

14 Monsanto, as part of research into
15 herbicidal compounds, was synthesizing molecules,
16 looking at different ideas we had internally about
17 would -- trying to answer the question of would
18 this chemical structure work as a herbicide. And
19 after a few rounds of work, glyphosate was
20 identified and it was tested under greenhouse
21 conditions and found to actually be effective.

22 Q Who discovered the herbicidal
23 properties of glyphosate?

24 A It was Dr. John Franz.

25 Q When did he make that discovery?

1 A That was in -- he was doing the
2 synthesis work and I believe the -- the discovery
3 of its -- of its ability to act as a herbicide was
4 1970.

5 Q Was there anything unusual about the
6 herbicidal properties of glyphosate?

7 A Yes. Glyphosate was act --
8 glyphosate acts on a broad spectrum of weeds, so
9 that means it kills grasses as well as broadleafs,
10 which are the plants like clover. It also acts
11 systemically. So when it's absorbed by the plant,
12 it goes down to the root and it can kill a weed at
13 the root so it won't grow back.

14 And this -- this combination is --
15 I'm not sure there was another product on the
16 market like that at the time, and I don't believe
17 there is now.

18 Q Was testing done at the time to
19 evaluate the safety of glyphosate?

20 A Yes, safety testing was conducted
21 early on in the process.

22 Q What was -- well, let me back up.
23 Let me -- well, let me ask you this. What happens
24 to glyphosate once it's sprayed and does its job
25 killing weeds?

1 A There -- there are two things that
2 can happen to it. One, it'll be degraded by
3 bacteria or fungus in the soil. The other thing is
4 that it -- it can bind to soil, so it will actually
5 just physically, you know, form a very strong
6 attraction to a soil particle or even just bond
7 with it.

8 Q And why is that good?

9 A And that -- that means it's not going
10 to be, you know, running off or leaching into
11 groundwater. And then the fact that it -- that it
12 actually is broken down by soil bacteria or fungus
13 means it's not going to accumulate in the food
14 chain. You're not going to see it, you know, over
15 time building up in people or the environment.

16 Q What are the ultimate breakdown
17 products of glyphosate when -- when it's
18 biodegrades?

19 A Initially the main metabolite is a
20 chemical called AMPA, aminomethylphosphonic acid,
21 and it means just part of the glyphosate molecule
22 has been broken off and consumed by bacterium and
23 the rest remaining is called AMPA. That itself can
24 degrade into ammonia, nitrate, phosphate, and
25 carbon dioxide.

1 Q And are all those things, ammonia,
2 nitrate, phosphate, carbon dioxide, those are
3 naturally occurring substances at that point?

4 A They are, that's correct.

5 Q What's the -- what was -- what was
6 understood about the safety profile of glyphosate
7 relative to other herbicides that existed at the
8 time?

9 A That -- that was the other unique
10 feature. So we talked about the systemic nature,
11 the -- the broad spectrum of activity. The other
12 part that makes it unique is its safety profile.
13 It -- it -- it has -- it has a very favorable
14 safety profile and that's what enables, if this --
15 it's -- that's what enables glyphosate to have many
16 uses.

17 MR. WISNER: Plaintiffs object to any
18 testimony about glyphosate safety relative to other
19 products.

20 Q (BY MR. BRENZA) What -- what was
21 favorable about glyphosate safety profile?

22 A We had the -- the data work
23 demonstrating to us there was low toxicity, both to
24 humans and animals. It was not accumulating in the
25 environment, it was breaking down, and that it was

1 excreted rapidly from the body.

2 Q Was the discovery of glyphosate and
3 the safety testing that accompanied it, did that
4 result in glyphosate being registered for use in --
5 in various countries?

6 A That's correct.

7 Q Was it registered for use in the
8 United States?

9 A Yes, in the United States in 1975,
10 with the first sales occurring in 1976.

11 Q Are you aware today how many
12 countries have registered glyphosate for use?

13 A It's over --

14 MR. WISNER: Objection.

15 A It's over a hundred.

16 Q (BY MR. BRENZA) How does the use of
17 glyphosate worldwide compare to other pesticides
18 that are used?

19 A It is the most commonly used
20 herbicide around the world.

21 Q Did Dr. Franz receive any awards for
22 his discovery of glyphosate?

23 A Yes. Dr. Franz received, the main
24 one internally to the company was the Queeny Award.
25 This was an -- an award for outstanding technical

1 achievement that's named after the founder of
2 Monsanto, John Francis Queeny.

3 External to the company he received
4 the National Medal of Technology, which is a
5 recognition of technological achievement in the US
6 at the -- at the federal level.

7 And then also --

8 Q Let me stop you. That's a --

9 A I'm sorry.

10 Q That's one that comes from the -- the
11 -- the US Government then?

12 A That's correct.

13 Q Okay. Go ahead.

14 A And then the other one at the -- at a
15 -- another award at the federal level came in 1996
16 and during the Clinton administration, it was the
17 White House Sustainable Technology Development
18 Award, and that was recognizing Monsanto as a whole
19 with the original Roundup herbicide, you know,
20 featuring prominently in that award.

21 Q As -- are you aware any of accolades
22 that have been given to glyphosate by the USDA?

23 A Yes. There -- USDA scientists
24 published a peer reviewed publication in 2008 that
25 described glyphosate as a once-in-a-century

1 herbicide, and that was because of what we talked
2 about earlier, the -- the systemic nature, the
3 broad spectrum activity against weeds, and then
4 also the safety profile, and just the way it
5 revolutionized agriculture.

6 MR. WISNER: Objection.

7 Q (BY MR. BRENZA) Now, we -- we talked
8 earlier about the pamphlet you prepared on the
9 benefits and safety of glyphosate. I want to talk
10 a little bit about the benefits.

11 A Sure.

12 Q What -- what's one of the major
13 benefits that glyphosate allows in terms of
14 farming?

15 MR. WISNER: Objection to any
16 testimony about the benefits of this. The basis of
17 that test -- objection is that no one here has
18 argued or even alleged that glyphosate should been
19 banned. This is about warning about cancer, and so
20 the benefits are completely irrelevant.

21 A That the main benefit in US
22 agriculture and in other countries around the world
23 is that glyphosate enables either no till
24 agriculture systems or reduced tillage agriculture
25 systems and that -- and this is the ability to

1 control weeds without having to turn the soil over
2 using a plow.

3 Q (BY MR. BRENZA) Okay. So let me --
4 let me back up because the jury may not be familiar
5 with tillage or no till agriculture.

6 A Sure.

7 Q What -- what exactly is tilling?

8 A Tilling is -- it was a -- it's a
9 mechanical method for controlling weeds. So the
10 idea is you have a plow is -- running through the
11 soil in a field. It turns the soil over and so the
12 weeds have a harder time germinating that way,
13 they've been turned over.

14 Q Upside down.

15 A Yeah.

16 Q So their roots are in the air at this
17 point?

18 A Yeah. And it -- it kills the weeds.
19 It's an effective form of weed control, but it has
20 some challenges. You can have, when it rains,
21 after you've tilled your field, it can -- you can
22 have runoff. So the soil is eroding and your --
23 your field is essentially washing away. The soil
24 is drying out, and that may not be helpful. If it
25 becomes too dry for you to be able to -- to grow a

1 crop, you're losing soil moisture.

2 The other thing is it -- when you
3 turn that soil over, the vegetation there in the
4 soil, the organic matter decomposes. It's been
5 exposed to the air now and starts to decompose and
6 it produces carbon dioxide, a greenhouse gas, and
7 is released into the air.

8 Q Does it require fossil fuels to till
9 a field?

10 A Yes, that -- it does that as well.

11 So you're also having to run a tractor or some kind
12 of machinery through the field to pull the plow and
13 turn the soil over.

14 Q So this may be obvious but what's the
15 benefit of no till agriculture?

16 A With no till agriculture we're able
17 to avoid that. You know, at least in -- in many
18 years. It may not be every year. You know, there
19 may be places where tillage is still required but
20 with no till or conservation tillage, you're able
21 to prevent erosion, prevent those greenhouse gas
22 emissions and conserve soil and also reduce the
23 amount of fuel use required to maintain that field.

24 Q How does --

25 MR. WISNER: I don't want to

1 interrupt too much but at some point we need to
2 take a short break so I can hand over to Michael
3 Baum.

4 MR. BRENZA: You decide.

5 MR. WISNER: Well, I don't want to --
6 you're in a flow. I just -- whenever you're done
7 with your no till thing, let me know.

8 MR. BRENZA: Okay.

9 Q (BY MR. BRENZA) How does glyphosate
10 enable no till agriculture and all the benefits
11 that you just described?

12 A What it -- what glyphosate does for
13 no till agriculture is allows you to kill those
14 weeds without having to turn the soil over. So
15 glyphosate, you apply it over the top of the field
16 prior to planting and it, as I mentioned, it's --
17 it's a -- has a broad spectrum so it's killing a
18 range of weeds in those fields, grasses, broadleafs
19 like clover, and then it's also acting systemically
20 so those weeds won't grow back into the crop.

21 Q Why is it necessary to -- to kill the
22 weeds in an agricultural field?

23 A Weeds -- weeds have been a problem,
24 you know, as long as there's been agriculture.
25 Weeds are -- the reason they're called weeds is

1 because it's a plant living somewhere that I don't
2 want it to live.

3 And so you've got -- you're trying to
4 grow a crop, there are weeds in the field, they --
5 they compete with that crop. They can shade it,
6 they can take away resources like water or
7 fertilizer -- they can -- weeds can also host
8 diseases and they can host insect pests as well.

9 By controlling weeds, you can make
10 sure your crop is able to get the water and
11 nutrients it needs to live but also prevent
12 diseases and insects from becoming an additional
13 problem.

14 Q And then how does glyphosate
15 facilitate that process?

16 A Glyphosate allows a -- a method to
17 control those weeds, either, you know, before the
18 growing season, after the growing season. In the
19 case of glyphosate-tolerant crops, it allows an
20 application over the top of the crop so they
21 control weeds as the -- during the growing season.

22 MR. BRENZA: We'll go off the record
23 for a moment.

24 THE WITNESS: All right.

25 THE VIDEOGRAPHER: We are going off

1 the record at 5:03 p.m.

2 (A recess was taken.)

3 THE VIDEOGRAPHER: We are back on the
4 record at 5:17 p.m.

5 (Mr. Brent Wisner is no longer
6 present.)

7 Q (BY MR. BRENZA) So, Doctor, I want
8 to pick up where we left off. We were going to
9 talk about the benefits of glyphosate and Roundup
10 for landscaping use at home.

11 A Yes.

12 Q Okay.

13 MR. BAUM: Just so we have our
14 continuing objection regarding the benefits issues.

15 Q (BY MR. BRENZA) What's the benefits
16 of Roundup for home use?

17 A In home settings one of the things it
18 can do, glyphosate-based herbicides are effective
19 at controlling poison ivy. And so when you think
20 about, you know, having a poison ivy plant in your
21 yard, I have actually had this situation quite a
22 lot, you know, or poison oak is another one, you
23 just don't want to come into contact with these
24 plants, you know, you don't want to get -- grab
25 them with your hands or -- or try to get them out,

1 you know, in a way that's going to cause you to
2 come into contact with them.

3 So the way I use glyphosate-based
4 herbicides and other people do is controlling
5 poison ivy in a way that keeps you from having to
6 come into contact with it.

7 Q What other uses of Roundup and
8 glyphosate are there for home landscaping use?

9 A It's also effective for brush control
10 around houses. So when you -- when you think
11 about, you know, environments where, you know, you
12 have brush that you need to control because if it
13 dries out, you could have a fire risk, that's one
14 of the things glyphosate is used for in home
15 settings is to control brush around the home.

16 Q Okay. What about for rights-of-way
17 and roadsides?

18 A There -- there are many uses there as
19 well. The -- you know, at the simplest level you
20 just -- you think about visibility, you know, being
21 able to control vegetation along the side of a road
22 so that drivers can see farther around a turn or
23 just make sure there isn't something there they're
24 going to drive into.

25 Drainage, you know, if you have a lot

1 of vegetation next to a roadway, it can stop
2 drainage from occurring, creating slippery
3 conditions, whether it's just wet or if it's icy.
4 You think about with railroads, crossings, you
5 know, being able to control the vegetation so you
6 can see the train and the train can see you.

7 And -- and rights-of-way for
8 utilities as well is a way of keeping the
9 vegetation under control. Under say a power line,
10 can prevent fires from occurring.

11 Q Now, are there other weed control
12 chemicals that are available on the market?

13 A There are. They -- they span a range
14 of properties, you know. In -- whether they're for
15 agriculture or home use, you know, you can -- there
16 -- there are many other herbicides around.

17 Q How do the safety profiles of those
18 other herbicides compare with glyphosate?

19 A They all -- you know, EPA's job
20 during a registration is to make sure that all
21 herbicides and all pesticides in general can be
22 used safely. That the uses that they are
23 approving, you know, are not going to cause, you
24 know, harm to human health or harm to the
25 environment, you know. They -- they have standards

1 that they're working towards during those
2 assessments to make sure the proposed uses of every
3 product can -- you know, that every product can be
4 used safely and all those approved uses are safe.
5 The -- the challenge just comes in, you know, when
6 you use them, what sorts of steps do you have to
7 take? What sorts of precautions, you know.

8 We think about a herbicide like
9 paraquat. It has a fairly high toxicity level to
10 both humans and animals in the environment and
11 pets. That's not a home use product. That's
12 restricted use. It's meant for professionals,
13 typically for agricultural situations.

14 Atrazine is another one. It -- it's
15 not so much toxicity there but it's the ability for
16 it to leach to groundwater. You know, it can move
17 through the soil and be -- make it to groundwater
18 and then it's -- can be taken up by someone's well.
19 So you have to be careful about where you apply it.
20 Also restricted use.

21 Also, you know, we think -- you know,
22 you think about the spectrum of herbicides
23 available, you know, there -- there are organic
24 herbicides, you know --

25 Q So what -- what's -- let's -- let me

1 just stop you there.

2 A Sure.

3 Q What other organic herbicides are
4 there?

5 A This is, so when you think about
6 organic, these are things that, to be approved,
7 they have to be from a natural source. And EPA
8 does have to register them just like any other
9 herbicide. So they are a pesticide that's been
10 registered by EPA but they're approved for organic
11 agriculture, or organic -- they -- they are -- they
12 just have that approval because they're from a
13 natural source.

14 There's one called Propion -- or, I'm
15 sorry. Pelargonic acid. P-e-l-a-r-g-o-n-i-c. And
16 it's pelargonic acid, and it -- it's from a natural
17 source. It's a fatty acid. It's actually a type
18 of soap. And it's used to kill vegetation in
19 organic settings and it -- it kills the above
20 ground portions. It's non-selective, so it does
21 have that ability to kill a wide range of weeds but
22 it doesn't get the root.

23 The other challenge it has is that it
24 can be somewhat volatile. And so you think about
25 these two things. It's -- it's got vegetation

1 below ground can come back from the root --
2 vegetation can come back from the roots, so we're
3 going to have to apply it multiple times. There's
4 also a volatility issue that, you know, you have to
5 read the label and be careful and think about a
6 little bit more and make sure you're not mixing it
7 in an enclosed environment because you can have
8 respiratory issues from it.

9 And so it's, really, when you look at
10 all that, you know, all these products are approved
11 by EPA, they're registered, they've been through
12 safety testing, it's a matter of, you know, each
13 specific use, are they safe for that use. And
14 when, you know, glyphosate is part of that
15 spectrum, it's also gone through this same review
16 process to make sure each approved use is safe for
17 both humans and the environment.

18 Q Okay. Are there other methods of
19 dealing with weeds other than herbicides?

20 A Yes. I mentioned tillage earlier,
21 just turning it over. You can hand weed, you know,
22 probably the oldest form of weed control, grabbing
23 some sort of tool to hoe a weed out of the ground.
24 You know, in some settings they use what's called
25 springtime weeders, so this is essentially like

1 pulling a -- a very narrow rake, bunches of little
2 narrow rakes behind a tractor to pull weeds out of
3 the ground. There are also flame weeders.

4 Q What's a flame weeder?

5 A Those are, the idea there, as it
6 sounds, you're using fire to burn weeds out of a
7 field. The -- you have a tractor with propane
8 tanks on it and they light a series of little
9 propane burners underneath and as it drives through
10 the field, it -- it burns the weeds or maybe the
11 weed seedlings before you plant the crop.

12 Q What's the downsides of -- of flame
13 weeding?

14 A There, you know, I think the
15 challenge more -- there are reports of people in --
16 in home settings trying this and starting fires,
17 injuring themselves, property damage. In
18 agriculture, you know, it's difficult to use that
19 in crop. People do it -- it's possible to do it
20 but it is -- it is not the easiest thing in the
21 world.

22 But really from my perspective,
23 speaking in my own personal capacity, the issue
24 with flame weeding would be you're burning a
25 tremendous amount of hydrocarbons and creating a

1 lot of greenhouse gasses.

2 Q The propane in the tank?

3 A That's correct.

4 Q And what does the flame weeding to
5 other things in the soil?

6 A The -- when you think about, you
7 know, you just think about what's in the soil in an
8 agricultural field, you know, it's not just, you
9 know, it's not just corn plants and soil. We've
10 got earthworms out there, we have beneficial
11 insects, we have bacteria and fungus, all these
12 organisms living out there that actually do provide
13 benefits to the crop and, you know, depending on
14 how you use that flame weeder, you can kill -- you
15 know, you're going to be burning everything in the
16 top layer of soil.

17 And so there's -- there's been some
18 discussion of that as well of, you know, is this
19 going to have an impact that -- on your -- on your
20 soil's health.

21 Q And that's not a problem that you
22 have when you use Roundup to control weeds; right?

23 A That's correct. With -- with Roundup
24 and other glyphosate-based herbicides, that is part
25 of the environmental safety assessment that

1 regulatory agencies go through.

2 Q All right. I'm going to hand you
3 what I'm going to mark as Exhibit 94. This is a
4 notice for your deposition that began yesterday?

5 A Yes.

6 Q And continuing today?

7 A Thank you. Just want to take a
8 minute to make sure I remember from yesterday.

9 Q I don't really have that many
10 questions about it.

11 A All right.

12 Q I just wanted you to verify that this
13 is the notice that you reviewed and prepared to,
14 prepared your -- to answer with respect to the
15 subject matter that are identified in the exhibit.

16 A That is correct.

17 Q Okay. That's actually the only
18 question I have about that.

19 A Okay.

20 Q All right. So if -- do you remember
21 that you were asked a number of questions about the
22 mouse and rat studies that were originally -- well,
23 not originally used but were eventually used by
24 Monsanto to register glyphosate with the EPA?

25 A I do.

1 Q And there was a 1983 mouse study by
2 Knezevich and Hogan?

3 A I do remember that.

4 Q And as a result of that mouse study,
5 did the -- did the EPA reach a conclusion about --
6 a preliminary conclusion about the carcinogenicity
7 of glyphosate?

8 A They -- they did have some
9 preliminary conclusions. They were not made final
10 by the agency.

11 Q Do you remember that there was a
12 document you were shown where Monsanto had hired
13 somebody called Dr. -- named Dr. Kushner to review
14 the mouse biopsies?

15 A I do recall that.

16 Q Did Monsanto tell Dr. Kushner what he
17 should find with respect to his review of those
18 mouse biopsies?

19 A No, Monsanto did not do that.

20 Q How do you know that?

21 A The -- so Monsanto, when we work with
22 external experts, you know, the -- you know, when
23 you're talking about the science experts, the idea
24 is that you want to find someone who knows their
25 field, who understands the material that you're

1 asking them to investigate and advise us on, but we
2 also make sure, you know, we're not -- we're not
3 going out there and telling them, you know -- we
4 don't engage an expert and say this is what we want
5 you to find, please do the following. It's please
6 look into this and tell us what you find.

7 Q Now, why -- it may be obvious but why
8 wouldn't you tell an expert what to find?

9 A So if -- if you're doing that, you
10 know, they are not really acting as an expert, but
11 more importantly, when you're doing something as
12 serious as dealing with the regulatory agency, you
13 know, putting information in front of them for them
14 to make a conclusion, if you give them, you know,
15 information that's false, that's not going to --
16 they're going to spend their -- they're going to
17 waste their time reviewing that and then they're
18 going to come back to you and say not only did you
19 waste our time, you gave us false information.

20 This isn't -- that's not a productive
21 interaction with the regulatory agency. You want
22 to make sure you're giving them as much factual
23 information as possible so that you're able to
24 obtain the registration or the approval.

25 Q I'm going to hand you what I've

1 marked as Exhibit 95. Exhibit 95 is a document
2 dated October 30, 1991, and it's a Memorandum, the
3 Subject of which is the "Second Peer Review of
4 Glyphosate."

5 Do you see that?

6 A I do see that. Could I have a minute
7 just to make sure I recall the entire --

8 Q Yeah, sure. Absolutely.

9 A I've seen this before. I just want
10 to make sure. All right. Thank you.

11 Q Do you -- have you seen Exhibit 95
12 before?

13 A Yes, I have.

14 Q Is Exhibit 95 the conclusion of the
15 EPA about the proper classification of glyphosate
16 based on mouse and rat studies?

17 A Yes. Following the -- the two rat
18 studies and the mouse study we discussed
19 previously.

20 Q So let's -- let's talk about those
21 studies for a moment. The -- the first rat study
22 was found to have inadequate dosing of rats; right?

23 A That's correct. The -- the agency at
24 the time expressed concern that the doses were too
25 low to really inform full assessment, and since

1 that time other regulatory agencies around the
2 world have -- have concluded the same thing about
3 it. That they're -- we have better data to rely on
4 than this.

5 Q Did Monsanto commission a replacement
6 or repeat rat study to dose the rats with more
7 glyphosate?

8 A Yes, we did.

9 Q And at the same time they also
10 performed the mouse study that we heard so much
11 about yesterday?

12 A Yes, the mouse study was underway
13 first, and the rat study began later on. So the
14 mouse data were available first.

15 Q Now, when the mouse study -- the
16 mouse study received a number of different reviews
17 at the EPA; right?

18 A That's correct.

19 Q And there was some disagreement along
20 the way about what the mouse study -- that first
21 mouse study really showed?

22 A That's correct.

23 Q But in the end, the -- a number of
24 experts reviewed those, reviewed that mouse study
25 and concluded that it -- it provided evidence that

1 glyphosate was not a carcinogenic?

2 MR. BAUM: Objection. Are -- you're
3 leading your witness here, and so you need to
4 ask --

5 MR. BRENZA: Sure.

6 MR. BAUM: -- non-leading questions.

7 Q (BY MR. BRENZA) What did the -- what
8 did the EPA ultimately conclude about that first
9 mouse study?

10 MR. BAUM: Just objection to the
11 degree that this is hearsay.

12 A So based on -- on the documents that
13 I've seen, they concluded that they wanted, you
14 know, at -- as we discussed yesterday, they wanted
15 a repeat of the mouse study. Through conversations
16 with them we said we're having -- we have a rat
17 study coming. Let's see what that study shows.
18 And then at that time decide do we need to do
19 another mouse study.

20 Q (BY MR. BRENZA) Okay. And is that
21 recorded on page 4 of Exhibit 95? Do you -- well,
22 let me -- let me ask it this way. Do you see the
23 second full paragraph on page 4 of Exhibit 95 --

24 A Yes, I do.

25 Q -- beginning with "HED"?

1 A I do see that.

2 Q It says, "HED deferred a decision on
3 the repeat of an additional mouse oncogenicity
4 study until the 1990 rat feeding study had been
5 evaluated by the Peer Review Committee."

6 A That is correct. That's what it
7 says.

8 Q Did -- did the EP -- so we heard the
9 questions yesterday about the EPA wanting a mouse
10 and a rat study and -- and Mr. Wisner suggested
11 that Monsanto refused to do one of the studies the
12 EPA wanted.

13 Is that a fair understanding of what
14 happened here?

15 A No. What -- what the EPA is
16 describing here is that the health effects division
17 is HED. They deferred their decision about whether
18 we needed another repeat mouse study until they
19 could see the results of this repeated rat study.

20 Q So are you familiar with the results
21 of the repeated rat study?

22 A Yes, I am.

23 Q And what did the repeated rat study
24 show about the safety of glyphosate?

25 A EPA concluded that -- that this

1 repeated rat study, along with the existing mouse
2 study, supported a conclusion that glyphosate could
3 be classified in group E.

4 Q What's -- and Group -- what is Group
5 E? Well, let me -- let me just direct your
6 attention to the -- the final page of Exhibit 95
7 says Classification.

8 Do you see that?

9 A I do see that.

10 Q And there it says, "Considering
11 criteria confined EPA guidelines for classifying a
12 carcinogen, the committee concluded that glyphosate
13 should be classified as a Group E (evidence of
14 non-carcinogenicity for humans), based on lack of
15 convincing carcinogenicity evidence in adequate
16 studies in two animal species."

17 You see that?

18 A I do see that. That's what they
19 concluded here.

20 Q And so a Group E means what?

21 A Group E, their description is
22 "evidence of non-carcinogenicity for humans," that
23 -- and that was their -- their definition here in
24 1991 following that review.

25 Q What were the two species in which

1 non-carcinogenicity had been proven by studies?

2 A Rat --

3 MR. BAUM: Objection.

4 Mischaracterizes the document.

5 A In rats and mice. Those were the two
6 species.

7 Q (BY MR. BRENZA) Are you aware of any
8 rat or mice studies the EPA wanted Monsanto to
9 perform that it didn't perform?

10 A No, I am not.

11 Q Was that even a feasible thing to
12 have happen?

13 A To conduct a rat or a mouse study?

14 Q To refuse to conduct a rat or mouse
15 study that the EPA asks you to perform?

16 A Once -- once they issue -- we talked
17 yesterday about a data call in. And so that's the
18 way -- that's how EPA can order a registrant to
19 turn in data.

20 You can -- you can have discussions
21 about EPA, with EPA about data requirements and
22 whether things are needed, but, you know, if -- if
23 they decide you're going to do something, you don't
24 have a -- you don't have a choice in that. In
25 order to maintain your product registration, you

1 have to give them the data they're asking for.

2 Q We heard some questions of you
3 yesterday about whether Monsanto tests formulations
4 of a combination of glyphosate and surfactants to
5 -- to form Roundup. Remember that?

6 A That's correct.

7 Q Are there tests that the company
8 performs on its formulations, its Roundup
9 formulations?

10 A Yes, we do. We look at dermal
11 penetration. We discussed those earlier. We're
12 looking at the formulated product, how much
13 glyphosate crosses the skin and enters the body.
14 And what we see there is very low penetration,
15 regardless of -- of what surfactant is there and --
16 and regardless of whether a surfactant is there.
17 It's less than 1 percent of -- of what's on the
18 skin.

19 The other thing we do is, these are
20 called genotoxicity assays. So these are -- are
21 studies, we earlier referred to them as cell
22 studies. These are -- these studies allow us to
23 understand whether or not the formulated product
24 damages DNA, you know, genotype, gene for genes,
25 whether or not the formulated product damages DNA

1 in a way that would be indicative of a chemical
2 that can cause cancer.

3 And when we look at those studies,
4 you know, these are being conducted according to
5 international protocols, these are protocols that
6 governments around the world have agreed this is
7 how we should do this sort of a test to get
8 reliable results.

9 We do it according to those
10 protocols. Also under good laboratory practices to
11 ensure the data are traceable. That they've been
12 well documented and that you can recreate the study
13 and that, in particular, the agency can come and
14 audit those findings. They can come order you to
15 turn over the data so it can be looked at. Those
16 studies also tell us glyphosate-based herbicides
17 are not genotoxic.

18 And then finally, we also do some --
19 a series of about six toxicological screening
20 studies that look at more short-term toxicity into
21 some -- short-term into medium-term toxicity
22 studies, just to make sure we understand that the
23 formulated product is behaving the same way as the
24 individual components.

25 Q Are -- are some of the genotoxicity

1 tests performed on live animals or are they all in
2 Petri dishes?

3 A There -- there is a combination
4 there. Some are in live animals, and so we're --
5 we're looking at the ability of a glyphosate-based
6 herbicide to cause genetic damage in their -- in
7 their blood cells as they form. It's also looking
8 at human, they're leukocytes. It's part of your
9 circulatory system.

10 The -- and then we also look at them
11 in -- we have a series of other cells but we also
12 look at them in a -- in a mutation -- a system
13 designed to detect mutations and it's in -- it's in
14 bacteria and it's a widely-accepted, short-term
15 genotoxicity assay.

16 So it's really all three. You're
17 looking at whole animal, you're looking at -- at
18 human and other cells, and then a -- a very
19 well-established bacterial system that many people
20 rely on.

21 Q Do you have safety testing on
22 surfactants?

23 A Yes, we do. And so that, just like
24 with the, you know, with the active ingredient,
25 we're looking at these things under short-term

1 medium-term toxicity, we are looking at their
2 ability to be absorbed, typically through an oral
3 exposure, you know, just when the animal eats it,
4 and looking as well at genotoxicity, the ability to
5 damage DNA in a way that would tell us they could
6 cause cancer.

7 Q Have the surfactants that Monsanto
8 uses in Roundup all been registered with the EPA
9 and gone through the same safety testing that you
10 just described?

11 A Yes, they -- so the way EPA addresses
12 them, these are part of a formulated product and
13 they are not responsible for the weed killing
14 activity. So --

15 Q You're talking about "them," you're
16 talking about the surfactants?

17 A The surfactants, that's correct. So
18 the surfactants, because they are not causing the
19 weed killing activity of a glyphosate-based
20 herbicide, they're referred to as an inert. It
21 simply refers to the fact that they aren't the one
22 -- they aren't the part of this product that kills
23 the weed, that has the intended effect.

24 Glyphosate is the, active the
25 surfactants are called the inerts. The inerts go

1 through screening to make sure that they can be
2 used safely. EPA handles them by breaking them
3 into groupings. So surfactants that have similar
4 chemical properties are all grouped together, and
5 there are several -- they call them clusters and
6 there -- there's numerous clusters.

7 Q Okay. So all of the surfactants are
8 -- that Monsanto uses undergo the same extent of
9 safety testing as -- as glyphosate does as well?

10 A They -- they do many of the -- of the
11 same studies. It's not identical. They -- they do
12 a -- so EPA's -- part of their assessment is to
13 make sure they can answer all these questions but
14 they may use different data to do it.

15 Q Okay. Now, you -- there was a series
16 of questions where you were asked if Monsanto had
17 ever done a long-term carcinogenicity study on --
18 on Roundup.

19 A I do recall that.

20 Q What are the problems with performing
21 a long-term carcinogenicity study on a formulated
22 product like Roundup?

23 A There -- there are a few reasons,
24 several reasons actually, why we haven't done that
25 kind of a test with the full formulated product to

1 go from, you know, a two year long study in rats or
2 18 month study in mice.

3 You know, first of all, when we look
4 across the data we have available, you know, when
5 we look at the epidemiology data, what we're seeing
6 is a -- a consistent message from those studies
7 that, you know, whether you're talking about the --
8 the cohort studies, the Agricultural Health Study
9 reports, there is no relationship between
10 glyphosate and cancer.

11 When we look at the -- the
12 case-control studies, some of the ones we discussed
13 yesterday, De Roos, McDuffie, studies like that,
14 what we see is that when you adjust for other
15 exposures in these people's lives, the relationship
16 between glyphosate use and cancer diminishes and
17 becomes non-statistically significant. So the
18 epidemiology data overall are telling us there
19 really isn't a relationship here.

20 When we look at the information we
21 have about glyphosate and the surfactant, the
22 surfactants by themselves, we're also seeing
23 information, all the information we have from
24 these, you know, these studies conducted according
25 to the international protocols under good

1 laboratory practices are telling us there is no
2 relationship between glyphosate and -- and these
3 surfactants and the ability to cause cancer in an
4 experimental system.

5 So we know from human data under --
6 gathered under real world conditions, we know from
7 experimental system data, whether that's animals or
8 some of the cell studies we mentioned, we're not
9 seeing anything there that's telling us there is a
10 reason to do that sort of testing.

11 And then the other issues you think
12 about is the feasibility. You know, so we have
13 this problem --

14 Q So let me --

15 A I'm sorry.

16 MR. BRENZA: Let's -- let's just go
17 off the record for a second because we're getting
18 some sirens.

19 THE VIDEOGRAPHER: We are going off
20 the record at 5:44 p.m.

21 (A recess was taken.)

22 THE VIDEOGRAPHER: We are back on the
23 record at 5:46 p.m.

24 Q (BY MR. BRENZA) Now, I interrupted
25 you. You were about to explain the feasibility

1 problems that might exist if -- if you tried to
2 perform a long-term carcinogenicity study on
3 rodents.

4 A Yes, our concern there --

5 Q On -- on formulated product.

6 A With formulated product, yes. The,
7 you know, the concern we have about feasibility is
8 whether or not you can obtain, you know, useful
9 data. Can you get data from a study like that that
10 can answer the question in -- in a way that, you
11 know, is -- is meaningful.

12 When you think about feeding an
13 animal a surfactant, these are essentially soaps.
14 If I give them too large of a dose, they're going
15 to get sick. Soaps, surfactants, when you -- when
16 you feed them to animals, they cause irritation in
17 their stomachs. They're either sick or they won't
18 eat. Sick animals, you do not conduct studies on
19 sick animals for two years and get meaningful data
20 at the other end. So we need to be very careful
21 about that.

22 The challenge comes when, if I have a
23 formulated product, I need to keep the ratio of
24 glyphosate to surfactant the same as it would be,
25 you know, in the -- in the product. And in order

1 to have enough glyphosate in there for -- so one of
2 their issues we mentioned earlier, the first rat
3 study, they said the glyphosate doses were too low,
4 we can't -- this isn't meaningful. So we need to
5 be able to reach a certain level of glyphosate.

6 In order to reach those levels of
7 glyphosate to have confidence that if we are going
8 to see something we would have, the surfactant at
9 that point is so high, you've made the animals --
10 you've -- you've essentially irritated their
11 stomachs, their digestive system so much, they're
12 not going to eat, they're going to be sick animals.

13 And so that, you know, at that point
14 you realize there isn't much feasibility there.

15 We're going to have to think about other ways to
16 answer that kind of question. And we already have
17 that information that we need.

18 We, you know, as I mentioned, the
19 epidemiology data are telling us we don't have a
20 relationship between glyphosate-based herbicide use
21 and cancer, the animal data are telling us we're
22 not seeing anything here that would indicate the
23 ability to cause cancer, and then the cell studies,
24 these mechanistic studies we talked about, also
25 show us, either with -- whether it's with the

1 formulated product or the individual components
2 alone, these products don't cause some -- don't
3 result in some change, you know, either in whole
4 animals or in cellular systems in, you know, cells
5 growing in a laboratory, that would indicate the
6 potential to cause cancer.

7 Q Has -- has Monsanto considered the
8 possibility that there is some synergistic effect
9 between glyphosate and the surfactant in a
10 formulated product?

11 A Yes, and part of my role, as I
12 discussed in scientific affairs, was compiling that
13 -- that information from experts within the company
14 and, you know, adding my thoughts to it so that we
15 could have our position on that, you know, what do
16 we -- what do we think about the potential for
17 interactions to occur.

18 Q What's the -- what is the answer to
19 that gly -- that Monsanto has reached?

20 A That we do not believe there is a
21 potential for an interaction.

22 Q How does that relate to the work you
23 did with hydrocarbon mixtures?

24 A It -- it's a similar idea, you know,
25 and really what it comes down to is, you know, when

1 the exposure is, you know, below a level that has
2 some kind of adverse outcome, interactions are
3 extremely unlikely.

4 You know, we -- we know they're rare
5 to begin with, but when you, you know, when you
6 think about the -- what EPA has done to make sure
7 that human exposures stay low -- you know, that's
8 part of the review process, to make sure they stay
9 below any kind of effect level -- you don't have
10 any reason to believe that there could be an
11 interaction between -- between the two chemicals.

12 Q All right. Now, you -- you were
13 asked a number of questions about the Agricultural
14 Health Study. Do you remember that?

15 A I do.

16 Q Are there two publications that
17 report the results of the Agricultural Health
18 Study?

19 A There -- there are two publications
20 that focus on the use of glyphosate-based products
21 and cancer from the Agricultural Health Study.

22 Q Okay. And is the first one of those
23 the De Roos 2005 paper?

24 A That is correct.

25 Q I'm going to hand you what's marked

1 as Exhibit 96. This is the De Roos 2005 paper.

2 Do you see that, sir?

3 A I do see that.

4 Q All right. I'm going to also hand
5 you the Andreotti 2018 paper.

6 A All right, thank you.

7 Q Is that another one of the AHS-based
8 papers that relate to glyphosate?

9 A Yes, it is.

10 MR. BEROUKHM: You want to identify
11 the exhibit numbers for the record? Did you?

12 MR. BRENZA: Did I not? I thought I
13 -- I thought I did when I marked it.

14 MR. BEROUKHM: I didn't see it.

15 MR. BRENZA: What is the exhibit
16 number on this one?

17 MR. BEROUKHM: Yeah, I didn't see
18 it.

19 MR. BRENZA: Maybe I -- maybe I --

20 THE WITNESS: Okay. So --

21 MR. ALTIERI: De Roos is 96 --

22 THE WITNESS: Yeah, 96.

23 MR. ALTIERI: -- and Andreotti is 97.

24 THE WITNESS: Okay. And I think --
25 oh, there we go.

1 MR. BEROUKHM: Thank you.

2 Q (BY MR. BRENZA) So let's -- let's
3 talk a little bit about the Agricultural Health
4 Study. What -- what is it?

5 A This is -- I mentioned earlier the
6 term "cohort study," and this is a type of study in
7 epidemiology where you're following a population of
8 people. So before they have a disease of interest
9 or some outcome of interest, you identify a
10 population, you collect information on them, you
11 know, whatever exposures you might be interested in
12 -- it could be any -- it could be, you know, living
13 in a green house. It could be using glyphosate.
14 It's just what are the things that you want to ask
15 about that you think may have a role in disease.

16 The -- so they -- they collect that
17 information, they follow these people over time,
18 and then they look at, you know, what happens to
19 these people's health over time. And then you can
20 analyze the data to draw conclusions about is there
21 a relationship or not.

22 Q Okay. And with the Agricultural
23 Health Study, they followed professional
24 applicators of pesticides?

25 A They did. These are licensed

1 pesticide applicators. And there was -- they --
2 according to this one from De Roos, they had 57,311
3 licensed pesticide applicators.

4 Q Is there any other study of which you
5 are aware comes anywhere -- anywhere close to
6 having 57,000 participants?

7 A The -- the -- I -- I am not aware of
8 any case-control or cohort study with that many
9 participants in it.

10 Q What's the advantage of having 57,000
11 -- more than 57,000 licensed pesticide applicators
12 as your data set?

13 A The -- so first of all, just the
14 number of people gives you the ability to have a
15 much better understanding of -- of what's going on.
16 The more people you have, typically the better.

17 The licensed pesticide applicator
18 part of it ensures that you have people who -- who
19 really understand what they've been using, you
20 know, they're going to know what this product is
21 both by the active ingredient, you know, like
22 glyphosate, and by the brand name Roundup. And so
23 that they are able -- they're able to provide you a
24 more accurate understanding of -- of what they've
25 been using.

1 Q It also means you're looking at a
2 population that's going to be exposed to
3 pesticides?

4 A That's right. These are people who
5 are using pesticides, you know, at least several
6 times a year, you're going to be able to at least
7 make some kind of, you know, assumptions about
8 their use and be able to potentially measure that
9 use as well.

10 Q Does the -- does the De Roos 2005
11 paper reporting on the Agricultural Health Study
12 report a figure for whether glyphosate increased
13 the risk of cancer?

14 A So is there a particular table? Is
15 it --

16 Q Well, let's start with Table 2.

17 A Table 2, all right.

18 Q Table 2 is titled Association of
19 glyphosate exposure (ever/never used) with common
20 cancers among AHS applicators.

21 Do you see that?

22 A I do see that.

23 Q And you see -- you understand this
24 case is primarily involved with something called
25 non-Hodgkin's lymphoma?

1 A I do see that.

2 Q And non-Hodgkin's lymphoma is often
3 abbreviated as NHL?

4 A That is my understanding, yes.

5 Q Is there an entry in Table 2 for NHL?

6 A Yes, there is.

7 Q Does the relative risk reported for
8 people who were exposed to glyphosate for NHL, does
9 that show that there's no -- there's no
10 statistically significant increase in their risk?

11 A That's correct. What they're showing
12 is when you adjust the effect for age -- so they do
13 two adjustments here to make sure they're
14 eliminating things that could confound the results.
15 One they adjust for -- for age, the other they are
16 adjusting for age as well as demographic and
17 lifestyle factors and other pesticides. And so
18 they have a -- they have a list at the bottom of
19 the -- of the other factors there.

20 But in -- in both columns, adjusted
21 just for -- simply for age, we have a -- and I
22 believe it's a -- a rate ratio is what they're
23 using here, it's RR. But it's essentially what
24 they've measured is the -- if I divide people by
25 using glyphosate and not using glyphosate, what's

1 the frequency of disease -- of these specific
2 diseases in those two groups.

3 Q And what do they -- what do they
4 conclude?

5 A And so what -- and so what they
6 concluded is that for adjusting only for age, the
7 value is 1.2, meaning you're -- you know, 1 means
8 there's no difference. They had 1.2 in the value
9 range from 0.7 to 1.9, meaning that they're -- this
10 is the confidence interval and it's telling us this
11 is not a significant result. This is, you know,
12 this --

13 Q Could be due to chance?

14 A Could be due to chance. And then
15 with the adjusted fully for age, it's 1.1 and the
16 range is 0.7 to 1.9. And so again, we're seeing
17 something that, you know, it's -- it's -- covers 1
18 on either side and so we're seeing, you know,
19 essentially this is chance. This not statistically
20 significant.

21 Q Turn to the next page of De Roos 2005
22 that we marked as Exhibit 96.

23 A All right.

24 Q And do you see in Table -- on, not
25 pages, Table 3?

1 A Yes.

2 Q And do you see Table 3 also lists a
3 number of different kinds of cancers that were
4 followed in the Agricultural Health Study?

5 A I do see that.

6 Q And most of the way down that table
7 there's an entry for NHL?

8 A Yes, I do see that.

9 Q And do you see that there's three
10 different exposure levels given for each type of
11 cancer?

12 A Yes, I do see that.

13 Q And that's true for NHL as well;
14 right?

15 A Yes, that's right. They have the
16 Cumulative exposure days and Intensity-weighted
17 exposure, yes.

18 Q So in the first column you mentioned
19 Cumulative exposure days.

20 A Mm-hmm.

21 Q Is there a column -- is there a
22 category for 1 to 20 exposure days?

23 A Yes, and that, they set that value at
24 -- at 1. So what they're doing is trying to
25 understand the more you use it, does your risk

1 increase.

2 Q Okay.

3 A And so you set groups using it from 1
4 to 20 days, that's what you're going to -- that's
5 essentially a control group you're going to compare
6 back to, and then you see if, with increasing use,
7 do we see a -- an increase in the incidence of this
8 cancer.

9 Q So the next level is 21 days to 56
10 days of use over -- over a lifetime?

11 A That's correct.

12 Q What's the risk of somebody -- of --
13 of getting NHL if you used Roundup 21 to 56 days?

14 A It -- it's lower, it's 0.7, but the
15 range is 0.4 to 1.4. So again, it's covering 1, so
16 this is -- this could be due to chance alone. It's
17 not statistically significant.

18 Q You see the third category is 50 day
19 -- 57 days to 2,678 days of -- of application of
20 Roundup?

21 A I do see that.

22 Q What's the risk of getting NHL
23 reported in -- in the De Roos 2005 paper for
24 someone who uses Roundup 57 days to 200 and --
25 2,678 days?

1 A Again, it's -- it's slightly
2 decreased, it's 0.9, but the range is 0.5 to 1.6,
3 indicating this could be chance. It's not
4 statistically significant.

5 Q Do you see the next column that you
6 mentioned the Intensity-weighted exposure days?

7 A I do see that.

8 Q And do you have an understanding that
9 that's some effort to take into account how
10 intensely exposed the applicators were when they
11 were applying Roundup?

12 A That's right. So this is, rather
13 than just looking at the number of days you used
14 it, it's what were you, you know -- there's a
15 difference in exposure from, you know, if I go out
16 in my yard and I spray a couple dandelions versus I
17 have 10,000 acres that I'm going to plant with
18 corn.

19 And so that's what they're trying to
20 do is account there -- I -- we would both be one
21 day, but this allows you to account for how much
22 are they actually using it in that day.

23 Q And without breaking it down all the
24 way, do -- is there a reported relative risk for --
25 what -- what happens to the relative risk the more

1 intensely the Roundup is used?

2 A It -- it's similar to what we saw
3 with cumulative exposure days. You know, they're
4 -- they're below 1 but they're all bracketing 1, so
5 they're not -- they're not statistically
6 significant.

7 Q Okay. But the tendency, the central
8 tendencies for the more exposed days is actually
9 less than for people who are exposed to fewer days
10 of glyphosate or fewer -- or less intensity of
11 glyphosate?

12 A That is correct, the numbers
13 decrease.

14 Q Is -- now, we talked about how a big
15 study, everything else being equal, is better;
16 right?

17 A Yes.

18 Q And a prospective study, everything
19 else being equal, is better than a retrospective or
20 case-controlled study?

21 A It, in some cases, it can be. You
22 know, one of the -- yeah, there's -- there's
23 advantages and disadvantages to all kinds of
24 epidemiology studies. One of the things that a
25 cohort study like the Agricultural Health Study

1 does well is control for, you know, having to think
2 back about what were my exposures. So if you -- if
3 you think about, you know, having to remember back
4 20 years, what was I doing, you know.

5 This, you're gathering that data up
6 front and then progressing into the future;
7 whereas, you know, if I collect that data from
8 someone, whether it's them directly or maybe if
9 they passed away, I'm collecting it from a spouse
10 or child or another relative, it's harder to know
11 if that information is accurate.

12 Q And that's what -- that -- that
13 second way is what you have to do when you're doing
14 a case-control study?

15 A That's right, case-controls you're
16 having to interview people after they're already
17 sick to find out what were they -- what exposures
18 did they have.

19 Q And then everything else being equal,
20 a longer study is better than a shorter study;
21 right?

22 A Yes. I -- I would agree that the
23 more time you have, particularly, you know, with a
24 cohort study like this, the more time you have, the
25 more informed you're going to be about the results.

1 Q Exhibit 97 is the Andreotti study.

2 Do you see that?

3 A I do see that.

4 Q And that was published in 2018?

5 A That's correct.

6 Q Was the -- do you know how long the
7 Agricultural Health Study has been going on?

8 A It began in 1993, so through 2019,
9 that's 26 years. And at the date of this
10 publication, it would have been 25 years.

11 Q Was -- were the results reported in
12 the Andreotti 2018 study significant to Monsanto in
13 terms of understanding whether glyphosate posed any
14 risk of causing cancer?

15 A They were. What this did is it
16 updated the data from De Roos, 2005 study, and
17 provided us more time. You know, one of the
18 criticisms of -- of De Roos was that, oh, you
19 haven't followed people long enough, you know,
20 there could be -- you know, if you wait longer,
21 there may be more people finding out they have
22 cancer.

23 And so then this adds another twelve
24 years to the information that De Roos had already.
25 And now we have, you know, a very long period

1 following these people from the beginning of the
2 study in 1993, and it -- it just -- it gives you
3 more confidence in the results.

4 Q What was the understanding of the
5 Andreotti study with respect to the risks of
6 non-Hodgkin's lymphoma associated with Roundup?

7 A Again, it -- it showed no
8 relationship. There was, you know, essentially
9 people who were using glyphosate-based herbicides
10 did not show an increased risk of non-Hodgkin's
11 lymphoma.

12 Q Would you -- leave that one out but
13 would you find what's -- what was previously marked
14 as Exhibit 20 in your stack?

15 A Okay. Holy moly.

16 MR. BEROUKHIM: Wait -- hold on, wait
17 a second. I don't think they're marked.

18 MR. BRENZA: This is July 22, 1997.

19 THE WITNESS: Oh, geez. That's the
20 problem I was worried about. I don't -- I don't
21 know that I have a Exhibit 20 -- oh, here we -- I'm
22 sorry, it was out of order.

23 MR. BEROUKHIM: One second.

24 A It's the -- the memo from John
25 Acquavella.

1 (Off the record discussion.)

2 MR. BAUM: This is what, 20?

3 A Yeah, that's right, that's Exhibit
4 20.

5 Q (BY MR. BRENZA) Now, during your
6 questioning by Mr. Wisner you were asked a number
7 of questions about Exhibit 20.

8 Do you remember that?

9 A I do recall.

10 Q And one of the questions you were
11 asked about is whether John Acquavella voiced
12 concerns that the AHS study would be inaccurate or
13 unreliable?

14 A That's correct.

15 Q If you look at the -- the page with
16 -- ending in 873, you see that that's where John
17 Acquavella puts out some thoughts about the
18 exposure assessment that the AHS would use?

19 A That's correct.

20 Q And do you see that he notes that he
21 has some concerns about whether the AHS will
22 accurately identify previous exposures and -- well,
23 let's just stop there. Previous exposures?

24 A Yes, I -- I do see that.

25 Q Did the people who conducted the

1 Agricultural Health Study respond to criticisms
2 like those made by Dr. Acquavella to improve their
3 study protocol?

4 A Yes, they did.

5 Q What did they do in response to
6 criticisms from -- from Dr. Acquavella or others
7 like him?

8 A The -- so one of the things we --
9 that they talk about here is the study
10 questionnaires, you know, will we -- can you get
11 accurate information from people. You know, if I
12 ask you a question today and then I come back in a
13 year, do I get the same answer?

14 They looked at that and the
15 Agricultural Health Study researchers published on
16 that and showed, yes, we have high confidence in
17 our -- in our survey to provide us useful
18 information.

19 Q So they validated their surveys and
20 -- and showed that -- the concern that Dr.
21 Acquavella had voiced was -- had been remedied?

22 A That's correct, they published that.
23 The other thing they did is look at -- we -- we
24 have a study where -- that they incorporated and
25 that's where the intensity-weighted lifetime days

1 comes in.

2 Q So I'm going to hand you that study.

3 Is that a study that Dr. Acquavella actually
4 performed?

5 A Yes, he is the main author on that --

6 Q So I'm going to hand you --

7 A -- publication.

8 Q -- what's been marked as Exhibit 98.

9 This is a article with John Acquavella as the lead
10 author entitled Glyphosate Biomonitoring for
11 Farmers and Their Families: Results from the Farm
12 Family Exposure Study.

13 Do you see that?

14 A Yes, I do.

15 Q Is this -- is this Exhibit -- did I
16 mark it 98?

17 A 98.

18 Q Is this Exhibit 98 commonly referred
19 to as the Farm Family Health Study?

20 A Farm Family Exposure Study is what we
21 called it.

22 Q Farm Family Exposure Study. Is
23 Exhibit 98 one of the things that Monsanto did to
24 help improve the Agricultural Health Study?

25 A Yes, it is.

1 Q And what did Exhibit -- what did Dr.
2 Acquavella conclude about the exposures of people
3 who apply glyphosate?

4 A What -- what Dr. Acquavella and his
5 -- and his co-authors here, this is, you know, John
6 Acquavella -- Dr. Acquavella at Monsanto and he
7 also has researchers from University of Minnesota
8 and Emory University in Atlanta, as well as
9 Exponent, which is a consulting company. Dr.
10 Acquavella and his co-authors found that exposure
11 to glyphosate was actually very low among farmers
12 and their families.

13 Q If you would turn to the page
14 numbered 324, and you see there is a -- a paragraph
15 in the -- in the column of text on the right-hand
16 side of that page beginning with the words "The
17 maximum"?

18 A I do see that.

19 Q It says, "The maximum systemic dose
20 for farmer applicators was estimated to be 0.004
21 milligrams per kilogram and the distribution of
22 values was highly skewed. The GM" -- and I'll
23 represent to you he defines that as the geometric
24 mean.

25 A Yes, that's correct.

1 Q -- "systemic dose was 0.0001
2 milligrams per kilo -- per kilogram."

3 A That's correct.

4 Q And he compares that with the -- do
5 you see where he compares that with the lowest, no
6 effect level from glyphosate toxicology studies --
7 studies of 175 milligrams per kilogram per day?

8 A I do see that.

9 Q And he also compares it with the
10 reference dose which is 2 milligrams per kilogram
11 per day?

12 A That's correct.

13 Q So -- so looking at the -- the mean
14 dose that he -- that Dr. Acquavella and his
15 colleagues sought in farmers, how does that compare
16 to the doses that are considered to be safe or were
17 considered to be safe at that time?

18 A They -- they are actually a -- a
19 small fraction of what those -- of -- of the doses
20 we're talking about.

21 Q And when you say "small," we're
22 talking about --

23 A Yeah.

24 Q -- on the order of 20,000 times less?
25 2,000 -- I may be doing the math wrong.

1 A Yeah, in -- in my -- in my head, I'm
2 -- I'm -- when I compare 0.004, you know, so this
3 is the maximum dose that these farmers were
4 receiving, they, um, that is about a 1/50,000th of
5 the exposure limit for the US at that time.

6 Q And that's the maximum dose he found?

7 A That is the -- the maximum systemic
8 dose. So that's the maximum of what they think is
9 inside these farmers based on their monitoring
10 data.

11 Q The mean dose was -- was hundreds of
12 times less than that?

13 A Yes. The mean dose is -- yes, it is
14 -- it is well below that. It is at least a -- it's
15 a factor of -- it's over a factor of 10 lower.

16 Q Okay. Factor of 10.

17 A So it would be at, you know, below
18 500 -- 500,000th of the exposure limit in the US at
19 the time.

20 Q The results reported in the Farm
21 Family Exposure Study, are you aware of whether
22 they inform the researchers of the Agricultural
23 Health Study?

24 A They did. I may have mentioned
25 earlier they -- so one of the things in the

1 Andreotti study, the 2018 update of the
2 Agricultural Health Study, is they looked at these
3 intensity-weighted lifetime days I described. So,
4 you know, making sure you can distinguish between
5 me killing dandelions in my yard or my driveway and
6 someone who is out spraying a corn field for a, you
7 know, good part of the day. It's not just, you
8 know -- you would count that sometimes as one day,
9 but intensity allows you to really understand the
10 difference between me and a farmer.

11 And that's what this Farm Family
12 Exposure Study allowed was to give some
13 understanding so you could separate out people and
14 make sure you really were classifying them based on
15 their exposure.

16 Q Okay. Now, you heard a little bit
17 about -- or we talked a little bit about when Mr.
18 Wisner was asking you questions about the IARC
19 finding about glyphosate.

20 A That's correct.

21 Q Were -- was part of your job at
22 Monsanto to develop an understanding of what IARC
23 had done and why it had done it?

24 A That is correct.

25 Q And was another part of your job to

1 understand what kind of response Monsanto could
2 make to IARC?

3 A That's correct.

4 Q Was another part of your job to
5 evaluate how other regulatory bodies around the
6 world viewed what IARC had done?

7 A It was. That was part of my job.

8 Q All right. I'm going to hand you
9 what I've marked as Exhibit 99.

10 A All right.

11 Q Is Exhibit 99 a business record you
12 prepared based on facts you had researched and
13 developed concerning IARC and the regulatory
14 evaluations of what IARC had done?

15 A It is.

16 Q Did --

17 MR. BAUM: I want to stop you here
18 for a second. I don't see the Bates number on
19 this.

20 MR. BRENZA: There is a Bates number
21 but it's not on the document. It's -- I'll read it
22 into the record, you can write it on.

23 MR. BAUM: Fine.

24 MR. BRENZA: It's produced natively.
25 It's MONGLY14425319.

1 Q (BY MR. BRENZA) Did you create
2 Exhibit 99 on or about the time that you acquired
3 the facts and knowledge of what IARC had done and
4 the world regulatory responses to it that you
5 created around the same time?

6 A I did.

7 Q Was it a part of your regular
8 business responsibilities at the time?

9 A Yes, it was.

10 Q And did the company rely on it in its
11 regular course of business?

12 A Yes, the company did.

13 Q Looking at page -- the first page of
14 the document you -- we've marked as Exhibit 99, do
15 you see that you've recorded information about the
16 IARC's rationale for its decision-making?

17 A I do see that.

18 Q And you see that there are a number
19 of different categories that you've evaluated?

20 A Yes, I do see that.

21 Q One of them is the epidemiological
22 data.

23 Do you see that?

24 A Yes I do.

25 Q And you said that the IARC had

1 concluded there was "limited evidence of glyphosate
2 causing non-Hodgkin's lymphoma in humans"; right?

3 A Yes, that's correct.

4 Q What -- what's the meaning of
5 "limited" in that sentence?

6 A So IARC has various classifications
7 of evidence, one of them is -- is this term
8 "limited," and my understanding of that is that
9 they are -- they are seeing an association but
10 chance, bias, and confounding cannot be ruled out.

11 Q Did IARC rely on animal studies?

12 A Yes, it did.

13 Q How many studies did IARC rely on?

14 A Four.

15 Q How many -- and we're talking about
16 mouse and rat studies; right?

17 A Mouse and rat.

18 Q How many mouse and rat studies were
19 available at the time IARC made its decision in --
20 in 2015?

21 A There were fourteen.

22 Q Do you have an understanding of why
23 IARC decided to only look at four out of the
24 fourteen existing mouse and rat studies?

25 A IARC obtained their -- well, they

1 obtained three of the studies from EPA itself. So
2 they submitted a Freedom of Information Act request
3 and were able to obtain three studies. The other
4 one they obtained through an internet website for
5 another World Health Organization agency.

6 Q And so that's how they got the four
7 they had?

8 A Yes.

9 Q Do you have an understanding why they
10 ignored the other ten?

11 A Well, so the -- the other ten, I
12 don't know why the EPA was not able to provide the
13 other ten through that Freedom of Information Act
14 request, but Monsanto scientists -- Monsanto
15 scientists at the time, in collaboration with
16 university researchers and another industry
17 scientist, Christian Strupp, compiled data from
18 these fourteen studies and published it in the
19 scientific literature through a peer reviewed
20 document.

21 Q Okay. So we'll come back to why IARC
22 didn't pay attention to ten of the fourteen studies
23 but I want to just make sure we mark as an exhibit
24 -- I'm trying to figure out where I can put the
25 sticker on it without obscuring something.

1 Going to hand you what I've marked as
2 Exhibit 100.

3 A All right.

4 Q Exhibit 100 is a -- a paper authored
5 -- with the lead author of Helmut Greim dated 2015
6 entitled Evaluation of carcinogenic potential of
7 the herbicide glyphosate, drawing on tumor
8 incidence data from fourteen chronic/
9 carcinogenicity rodent studies.

10 Do you see that?

11 A I do see that.

12 Q Is -- is Exhibit 100 the effort that
13 Monsanto made to put it to the public domain and
14 publish all the mouse and rat studies that had been
15 done on glyphosate?

16 A It is -- it is the effort that
17 Monsanto made as well as the glyphosate task force
18 -- task force which is all the companies in the --
19 who have registered glyphosate-based herbicides or
20 glyphosate itself.

21 Q Okay. So, and you mentioned that in
22 a number of questions that you were asked by Mr.
23 Wisner. Glyphosate task force is a -- it's a --
24 it's a group of companies that --

25 A Mm-hmm.

1 Q -- and they share their -- they share
2 data; right?

3 A That's the idea is they are able to
4 share data, and this would be an example of -- of
5 what they have done.

6 Q And in some cases some of these mouse
7 studies were not done by Monsanto but they were
8 done by other companies that have an interest in
9 glyphosate?

10 A Yes, and then they were -- these are
11 then submitted -- these studies are the ones that
12 are being used, you know, around the world to
13 submit to government agencies for review.

14 Q And you'll see on the front page of
15 the Greim article there is a heading called -- a
16 heading for rouse -- Rat carcinogenicity and a
17 heading for Mouse carcinogenicity.

18 Do you see that?

19 A That's correct.

20 Q And the studies are numbered 1
21 through 14?

22 A That's correct.

23 Q Are those the fourteen studies that
24 IARC had -- should have had access to when it was
25 evaluating the carcinogenic potential of

1 glyphosate?

2 A Yes.

3 Q In your analysis of the IARC
4 decision, did you reach an understanding why they
5 didn't consider the ten other studies involving
6 mouse -- mice and rats?

7 A So their -- their statement is that
8 they -- IARC statement that they only consider
9 publicly available data and, therefore, they --
10 these are statements they have made outside of the
11 monograph.

12 So they have said, as part of the
13 rules, that we only consider publicly available
14 data, and then in the monograph itself they said
15 they did not consider these studies because they
16 did not have sufficient information on some of the
17 studies.

18 Q Did Monsanto, in addition to
19 publishing or -- or facilitating the publishing of
20 the Greim article, did Monsanto do -- take other
21 steps to try to get these mouse and rat studies to
22 IARC so they could be evaluated?

23 A We did.

24 Q And this was before they reached
25 their decision?

1 A Yes, this was before they met. They
2 have -- IARC has data deadlines for each of their
3 meetings and so we had to provide this publication
4 to them prior to that data deadline. And Dr. Donna
5 Farmer was responsible for -- for sharing this with
6 them. She initially --

7 Q And --

8 A Oh, I'm sorry.

9 Q -- when you say "this," you're
10 referring to mouse and rat studies?

11 A Sorry. Yes, sharing the -- the Greim
12 publication with all of the mouse and rat studies
13 with IARC. She attempted to email this document to
14 them but did not receive a response. She then, in
15 an attempt to make sure they saw it, she used
16 what's called an electrile -- electronic file
17 transfer service and -- and the idea is you have to
18 click on a web link and that opens up the document
19 for you and the center gets a receipt so we would
20 know they had opened it.

21 We did not get a receipt saying they
22 had opened it so we did not know that they had, and
23 at that point Dr. Farmer, my understanding is she
24 saved it onto a thumb drive and then sent it to
25 IARC's offices via Fed Ex. And it was signature

1 required. So when they signed for the delivery, we
2 knew they had it.

3 Q So Monsanto knows they had these
4 studies available to them if they wanted to
5 consider them?

6 A That's correct, and that was in
7 advance of the data cutoff.

8 Q Now, of the four studies that IARC
9 decided to consider, did you evaluate how other
10 bodies, regulatory bodies had seen those same exact
11 studies?

12 A I have. That is correct.

13 Q And is that recorded on page 3 of the
14 business record we have marked as Exhibit 99?

15 A That's correct.

16 Q Do -- does page 3 show that over --
17 over a number of decades, that the same rat and
18 mouse studies that IARC considered were considered
19 by a number of other regulatory bodies in other
20 countries?

21 A It does show that.

22 Q I -- I just counted them up and it
23 looks like it's, including IARC, it's a total of 23
24 different times that regulatory bodies or IARC
25 evaluated the same four mouse and rat studies?

1 A Yeah, so there, yeah, there -- there
2 are, I believe, 24 agencies on here. Some have
3 evaluated all of them; some have evaluated a subset
4 that you'll see in here as well. Brazil, it's a
5 pending review.

6 But really what you see overall is
7 that IARC is the only agent -- is the only review
8 where a yes appears in any column. All the other
9 columns, any time a review has been done the answer
10 is no, indicating that the viewer did not find any
11 evidence that the study indicated that glyphosate
12 was causing cancer.

13 Q Okay. So with respect to all four of
14 the studies, IARC is the only entity that evaluated
15 those studies and concluded that they did show that
16 glyphosate caused cancer?

17 A That is correct.

18 Q Every other body found that they
19 didn't?

20 A That's correct.

21 Q Is there a difference in the type of
22 data that IARC considered and the type of data that
23 regulatory bodies considered apart from the four
24 mouse and rat studies we just discussed?

25 A Yes, the, you know -- there -- there

1 were other differences, so if we look at, and we
2 call it mechanistic data, earlier we used the term
3 "cell data."

4 They -- you know, you have data in
5 the open literature, you know, that's been
6 conducted, say as part of a research laboratory at
7 a university. You also have data that's been
8 generated by a company like Monsanto or other
9 companies where we're -- we're looking at this
10 question of can glyphosate or glyphosate-based
11 herbicides damage genetic material in a way that
12 could indicate cancer.

13 Q Are the studies that are done for
14 regulatory bodies required to abide by
15 international protocols?

16 A They are.

17 Q What's -- what are those protocols?

18 A So these -- this is the Organization
19 of Economic Cooperation and Development and I
20 alluded to this earlier where these are
21 internationally accepted guidelines where, you
22 know, many countries around the world have agreed
23 this is how we want the study done so we can
24 interpret the data so we can make sure everyone is
25 using the same rule book so we can interpret the

1 data when we have them.

2 Q Are there other standards that are
3 required for regulatory submissions?

4 A Yes, alls -- the other thing is along
5 with that is good laboratory practices, you know, I
6 mentioned earlier we have to be able to track the
7 data, audit the data, know where the data are being
8 kept, but then also you want to make sure that the
9 results of these studies, these cellular studies,
10 the mechanistic studies are telling us about, the
11 potential to damage, DNA, are relevant to a human
12 health risk assessment. That's really what, you
13 know, when you're looking at a human health risk
14 assessment, agencies require that they be
15 informative of that. Be informative so they can be
16 used in that risk assessment.

17 Q How does that compare with the
18 literature that IARC relied on?

19 A They included some data from the open
20 literature, you know, these are from research
21 laboratories outside of industry at universities,
22 they included some of that, that were relevant.
23 But they also included many that were not relevant.

24 And this is one of the biggest
25 challenges with IARC is that they were including

1 studies on things like eels and fish that really
2 don't tell us anything about, you know, tadpoles,
3 that don't tell us things about -- they don't
4 provide information about human health risks.

5 They maybe can be used in an
6 environmental risk assessment but they aren't going
7 to tell us about human health, and so IARC was
8 considering a lot of studies that regulatory
9 agencies around the world would never use in order
10 to understand human health risks.

11 Q So we will come back to that in a
12 minute but I want to ask you a couple of questions
13 about an exhibit that was created by Mr. Wisner.
14 Would you pick out -- would you pull out Exhibits
15 73 and 74, please?

16 A Okay, I located 74. Can you help me
17 identify which one 73 --

18 Q 73 may be -- it's right here.

19 A Oh, okay, it's -- it's the drawing.

20 Q Which you really should have these as
21 part of your set as well, but that's -- we'll
22 combine them at the end. So it's these two.

23 A All right. I see those.

24 Q And do you see that --

25 MR. BEROUKHM: There is -- there is

1 no duplicate of 73, is there --

2 THE WITNESS: Oh.

3 MR. BRENZA: There's only one 73.

4 THE WITNESS: Okay.

5 MR. BRENZA: We made a photocopy of
6 it.

7 THE WITNESS: Okay.

8 Q (BY MR. BRENZA) So I made a
9 photocopy of Exhibit 73, which I'm actually going
10 to give another number to --

11 A Okay.

12 Q -- because I'm going to do something
13 to it. So my copy is going to be Exhibit 101.

14 A Okay.

15 Q And do you remember that Mr. Wisner
16 showed you Exhibit 74 and --

17 A Yes.

18 Q -- and got you to say that part of
19 the -- well, he thought you said that part of the
20 EPA agreed with IARC instead of the other parts of
21 the EPA. Remember that?

22 A I did not say that.

23 Q He was talking about the Office for
24 Research and Development, ORD?

25 A -- I recall that part of the

1 conversation.

2 Q And he -- he claimed that you said
3 that the ORD agreed with IARC and that the Office
4 of Pesticide Programs did not agree with IARC.

5 A I -- I recall that part of the
6 conversation.

7 Q Is that what you meant to say?

8 A No, that is not.

9 Q What was your understanding of the
10 viewpoint of ORD with respect to the finding of
11 glyphosate's potential to cause cancer and its
12 agreement or disagreement with IARC and the OPP?

13 A The -- so what I -- I was trying to
14 point out earlier when that was added, that
15 statement was added to Exhibit 73, is that there's
16 two things to keep in mind. One, you know, this is
17 identified as a Summary of ORD comments. This is
18 not an official -- you know, when you look at
19 official agency documents, they are signed by the
20 scientists who worked on it, there is some
21 indication of what, you know, process did this come
22 out of.

23 This does not have that information,
24 so it -- it's not an official determination of the
25 Office of Research and Development about their

1 official views on a topic. This is some --

2 Q And you're talking about Exhibit 74
3 now?

4 A Yes, Exhibit 74. So that's what I
5 was trying to point out there is that this is --
6 you know, these are people sharing their opinion
7 but it is not an agency determination that, you
8 know, ORD officially agrees with IARC. This is
9 scientists at ORD made this statement.

10 And -- and we don't know who the
11 actual author of this is as well. The --

12 Q And "this" being Exhibit 74?

13 A Of -- of -- yes, I'm sorry, of
14 Exhibit 74. We don't know -- there is no
15 information telling us who the exact authors are of
16 this. The other point is that they say this
17 document, Exhibit 74, says ORD's epidemiologists
18 agree with IARC that there is limited evidence, and
19 this is -- of carcinogenicity in humans, so this is
20 about the epidemiology data.

21 And then they go on to talk about
22 IARC's definition of "limited evidence," and as I
23 -- as we talked about earlier and as I mentioned
24 just now, you know, with limited evidence, IARC is
25 saying we can't rule out bias, chance or

1 confounding from what we have observed.

2 So really what they're saying is, you
3 know, whatever we saw, we can't rule out anything
4 else that's happened to be able to say we have
5 confidence in it.

6 Q Okay.

7 A They're saying we don't really have
8 anything.

9 Q So it's -- the ORD, to the extent
10 it's agreeing with IARC on anything, it's agreeing
11 that it can't conclude that glyphosate is
12 carcinogenic based on the epidemiological data?

13 A That's correct.

14 Q Did the ORD disagree with the OPP's
15 conclusion that glyphosate is not a probable human
16 carcinogen?

17 A So this document again is not -- we
18 don't know who, this document being Exhibit 74, we
19 don't know who the actual authors are, it's not an
20 official agency determination. What we do have is
21 an official agency determination that's -- that's
22 undergoing peer -- well, undergoing comment and
23 review right now, that EPA views, the authorities
24 and EPA and Office of Pesticide Programs, the ones
25 with responsibility for making such a

1 determination, is that glyphosate, there is a --
2 essentially they're saying that glyphosate is
3 non-carcinogenic to humans, that it is unlikely to
4 pose a carcinogenic risk to humans.

5 That's -- that's what -- that's how
6 the agency speaks. Office of Research/Development,
7 while they may have some role internally advising
8 the Office of Pesticide Programs and sharing their
9 thoughts, they do not speak for the agency on these
10 topics.

11 Q Okay. So if we -- if the question
12 that Mr. Wisner is trying to answer with Exhibit --
13 what we've marked as Exhibit 101 what he had marked
14 as 73 --

15 A 3.

16 Q -- is whether they -- whether these
17 entities had reached a conclusion that IARC was
18 right about glyphosate, then that's not supported
19 for the ORD; correct?

20 A That is correct.

21 Q And so we would just cross that
22 out --

23 A I agree.

24 Q -- because that's not what you said
25 to Mr. Wisner, he -- it's just something he wrote

1 on the exhibit?

2 A That's correct.

3 Q Now, with respect to the other
4 entities that Mr. Wisner questioned you about on
5 Exhibit 73 --

6 A Mm-hmm.

7 Q -- one of them was OEHHA; right?

8 A I do see that.

9 Q And you're -- you have some knowledge
10 of OEHHA from your time working with the California
11 EPA; right?

12 A That's correct.

13 Q Does OEHHA make an independent
14 scientific evaluation before it decides to adopt
15 IARC's recommendations?

16 A No, it does not.

17 Q So to the extent that Mr. Wisner was
18 trying to imply that OEHHA had seconded or
19 reinforced IARC, that wouldn't be true either;
20 right?

21 A That's correct. They are simply
22 repeating what IARC has said.

23 Q So to make this accurate based on
24 what your testimony is, we would cross out the part
25 of this exhibit that relates to OEHHA?

1 A That's correct. OEHHA has actually
2 reviewed the -- some of those long-term animal
3 studies for glyphosate and they concluded the
4 opposite of IARC as well.

5 Q Okay. Now, and that was before IARC
6 reached their -- their conclusions?

7 A Yes, it was, several years.

8 Q He also suggested that OSHA somehow
9 had agreed with and reinforced the IARC conclusions
10 about glyphosate; right?

11 A I recall that.

12 Q Is that true?

13 A OSHA requires that when IARC makes a
14 determination, you note that on a Material Safety
15 Data Sheet, on -- it's the information about a
16 molecule. So with glyphosate, we were required by
17 OSHA's regulations to add that as a notation, but
18 we're also able to note as well that the -- there
19 is no evidence in animals that glyphosate is a
20 carcinogen.

21 So we're able to add that qualifier
22 as well, but this is not an OSHA determination.
23 It's merely OSHA regulations require IARC to be
24 repeated on this Safety Data Sheet.

25 Q Okay. So to the extent that Mr.

1 Wisner is trying to suggest that OSHA had done any
2 analysis that reinforced the IARC decision, that
3 wouldn't be right either?

4 A That's correct.

5 Q And the ATSDR, they just haven't
6 reported yet?

7 A They have not. According to their
8 website, as I mentioned earlier, it's still
9 undergoing peer review.

10 Q Are you aware of anything that
11 Monsanto has done to slow or impede that report
12 from issuing?

13 A No, I am not.

14 Q All right. I'm going to leave
15 Exhibit 101 out. And --

16 A All right.

17 Q Now let's go back to Exhibit 99.

18 A Okay.

19 Q And you mentioned that IARC had
20 relied on eels and tadpoles and -- and fish for
21 certain of its conclusions; right?

22 A That's correct.

23 Q And you said that those animals don't
24 strongly inform effects on human health?

25 A That's correct. That's the view of

1 regulatory agencies is that you -- you don't use
2 data from -- that aren't from a mammal, mouse --
3 mice or rats or something like that, to tell you
4 about human outcomes.

5 Q And was that the -- the so-called
6 mechanistic data that IARC relied on?

7 A That's correct.

8 Q That came from eels, tadpoles, and
9 fish?

10 A That's correct.

11 Q When -- when something like --
12 someone like the EPA evaluates mechanistic data or
13 genotoxicity or oxidative stress, what kind of
14 animal models do they require?

15 A Typically these are -- to understand
16 these mechanistic studies, the ability to cause
17 genetic damage, it's mice are the primary animal
18 and sometimes rats as well.

19 Q Okay. And that's not what IARC chose
20 to rely on.

21 A They -- they did not -- that was not
22 primary --

23 Q For that kind of data.

24 A Yeah, they -- they had some of it
25 available but it was not -- that was not primary

1 information they relied on.

2 Q Okay. So now I want to go through
3 your analysis of the world regulatory bodies.

4 A Okay.

5 Q Also included in -- in the business
6 record marked as Exhibit 99. Did you make an
7 effort at the time you prepared Exhibit 99 to
8 understand the regulatory conclusions of various
9 entities that had evaluated glyphosate after the
10 IARC decision?

11 A Yes, I did.

12 Q Is -- are those listed in Exhibit 99?

13 A Yes, they are.

14 Q Let's turn to the first one you
15 reported on, the European Food Safety Authority.

16 Do you see that?

17 A Yes, I do.

18 Q What's the European Food Safety
19 Authority?

20 A This is the regulatory body within
21 Europe that has responsibility for making final
22 determinations about the safety of pesticides
23 across the European Union.

24 Q What analysis did the European Food
25 Safety Authority make of glyphosate after the IARC

1 decision?

2 A They -- they concluded that
3 glyphosate is unlikely to pose a carcinogenic risk
4 to humans.

5 Q Let's turn to the next page. Do you
6 see you've reported on the Canadian Pest Management
7 Regulatory Agency?

8 A I do see that.

9 Q Is that the, roughly, the Canadian
10 equivalent of the EPA?

11 A In many ways, yes.

12 Q And did you make an effort to
13 understand what the Canadian Pest Management
14 Regulatory Agency thought about the potential of
15 glyphosate to cause cancer even after IARC had
16 reached its conclusions?

17 A I did.

18 Q What did the Canadian Pest Management
19 Regulatory Agency conclude?

20 A They -- they also concluded that
21 glyphosate is unlikely to pose a human cancer risk.

22 Q Turn to the next page. Do you see
23 that you've reported on the Japan Food Safety
24 Commission?

25 A I do see that.

1 Q Did you make an effort to understand
2 where the Japan Food Safety Commission had come out
3 on the safety of glyphosate even after the IARC
4 decision?

5 A I did.

6 Q What did the Japan Food Safety
7 Commission conclude?

8 A They looked across a range of
9 endpoints and so they -- so their key statement was
10 "No neurotoxicity," no toxicity to the nervous
11 system, "carcinogenicity," it won't cause cancer,
12 "reproductive effects, teratogenicity," that's
13 developmental toxicity, "or genotoxicity was
14 observed." So this is consistent with what we were
15 seeing out of Europe and -- and Canada.

16 Q Okay. Let's go to the next one. Did
17 you -- is there something called the JMPR?

18 A Yes. This is part of the World
19 Health Organization. So it's the Food and
20 Agriculture Organization of the United Nations and
21 the World Health Organization, and they -- they put
22 these two groups together to assess the risks of
23 pesticide residues on food.

24 Q Did the -- is the JMPR part of the
25 World Health Organization?

1 A That's correct.

2 Q And that's the same organization that
3 IARC's part of?

4 A That's correct.

5 Q Did the JMPR agree with IARC?

6 A No, they did not.

7 Q What did the JMPR conclude?

8 A "Glyphosate is unlikely to pose a
9 carcinogenic risk to humans from exposure through
10 the diet."

11 Q Turn to the next one. European
12 Chemicals Agency.

13 Do you see that?

14 A I do see that.

15 Q What's the European Chemicals Agency?

16 A So it -- that stands -- so they're
17 abbreviated ECHA, is the way people refer to them.
18 E-C-H-A. And they -- their job is to standardize
19 hazard warnings across Europe so that all members
20 of the European Union are looking at chemical
21 hazards the same way. They have a labeling and
22 warning system that they rely on, and that's what
23 ECHA's job is, develop the warning and enforce it.

24 Q And had -- had ECHA reviewed the
25 safety of glyphosate after the IARC decision?

1 A ECHA did review that. This is a
2 panel of -- of independent scientists they bring
3 together for this review.

4 Q Did ECHA agree with the -- with IARC
5 about the carcinogenic potential of glyphosate?

6 A They did not. They -- ECHA's
7 conclusion was there was "No hazard classification"
8 that -- I'm sorry. "No hazard classification for
9 carcinogenicity is warranted for glyphosate
10 according to the" -- it's "CLP criteria," but that
11 stands for -- it's essentially their -- their rules
12 about how do we label products.

13 Q All right. Turn to the next one.

14 Q New Zealand. Did New Zealand's Environmental
15 Protection Authority evaluate the safety after the
16 IARC decision concerning glyphosate?

17 A New Zealand did.

18 Q And New Zealand didn't agree with
19 IARC either, did they?

20 A They did not. They concluded
21 glyphosate is unlikely to be genotoxic or
22 carcinogenic.

23 Q Turn to the very last page. I want
24 to skip over one for a second. We'll come back to
25 it. The Australian Pesticides and Veterinary

1 Medicines Authority.

2 Do you see that?

3 A I do see that.

4 Q Is that the entity in Australia that
5 evaluates risks from things like glyphosate?

6 A Yes, they are. They are the agency
7 that regulates pesticides, including glyphosate.

8 Q Did you make an effort to understand
9 how the Australian regulatory body had considered
10 the safety of -- of glyphosate?

11 A I did, and -- and what they were --
12 what they were doing is they were asked to please
13 take a look at glyphosate again following IARC and
14 determine do we need to -- do we need to go through
15 this whole analysis again or do the data we have
16 support the conclusions that we -- that we've
17 already adopted.

18 Q And were they able to answer that
19 question?

20 A They were.

21 Q And did they answer it in a way that
22 agreed with IARC?

23 A No, they did not. They said exposure
24 -- so the -- Australia concluded "Exposure to
25 glyphosate does not pose a carcinogenic risk to

1 humans."

2 Q Okay. So we've looked at all these
3 regulatory bodies that had not agreed with IARC.

4 A That's correct.

5 Q Let's -- let's go to the one second
6 to the last page. Do you see that that's the
7 United States Environmental Protection Agency?

8 A I do see that.

9 Q And the EPA is the entity that's
10 responsible for evaluating the safety of compounds
11 like glyphosate and Roundup?

12 A That's correct.

13 Q Did the EPA evaluate the safety of
14 glyphosate after the IARC decision?

15 A It did.

16 Q And we talked about that. Is that
17 the OPP evaluation?

18 A That's correct.

19 Q And what did the -- did the EPA agree
20 or disagree with IARC?

21 A They disagreed.

22 Q What did they conclude?

23 A Gly -- so the United States EPA
24 classified glyphosate as "not likely to be
25 carcinogenic to humans."

1 MR. BAUM: So I just want to pose an
2 objection, then you can go on. I'm going to object
3 to the use of this memo to the degree it's being
4 used as a back door expert report to convey
5 opinions with regard to hearsay documents and
6 hearsay conclusions and regulatory findings.

7 Q (BY MR. BRENZA) Did the -- did any
8 regulatory body that evaluated glyphosate, took the
9 time to evaluate the scientific studies that were
10 available to IARC, did any regulatory body that did
11 that agree with IARC?

12 MR. BAUM: Same objection.

13 A So all of these -- all these
14 regulatory agencies around the world that have --
15 that considered the -- the data that IARC had in
16 front of it as well as all of the additional
17 information, whether that's from industry or in the
18 publicly available literature, none of them have
19 agreed with IARC.

20 MR. BRENZA: Can we take a little
21 break?

22 THE WITNESS: All right.

23 THE VIDEOGRAPHER: We are going off
24 the record at 6:49 p.m.

25 (A recess was taken.)

1 THE VIDEOGRAPHER: We are back on the
2 record at 7:12 p.m.

3 THE MR. BRENZA: Dr. Reeves, thank
4 you so much for your testimony. I'm going to pass
5 you to opposing counsel.

6 THE WITNESS: Thank you.

7 THE VIDEOGRAPHER: We are going off
8 the record at 7:12 p.m.

9 (A recess was taken.)

10 THE VIDEOGRAPHER: We are back on the
11 record at 7:16 p.m.

12 EXAMINATION

13 QUESTIONS BY MR. BAUM:

14 Q Mr. Reeves, I'm Michael Baum. I
15 represent Plaintiffs in this action as well as Mr.
16 Wisner and he had to leave to go make a flight in
17 order to attend a hearing tomorrow morning in San
18 Francisco.

19 A All right. I understand.

20 Q So I had to step in and ask you a few
21 questions related to the examination that
22 Monsanto's counsel asked of you.

23 A I understand.

24 Q You spent some time discussing some
25 of the benefits that Roundup or glyphosate-based

1 products have.

2 Do you recall that?

3 A I do recall.

4 Q Would any of those benefits disappear
5 if Monsanto warned about potential carcinogenicity
6 of Roundup?

7 A I am not aware of any nor am I aware
8 of any reason we would need to warn.

9 Q But they wouldn't disappear just
10 because Monsanto warned about carcinogenicity,
11 would it? Would they?

12 A I am not aware of -- I am not aware
13 of anything that would indicate those benefits
14 would disappear, but I am also not aware of any
15 need to warn.

16 Q Do you know why Bayer is phasing out
17 the name of Monsanto?

18 A My understanding is because they --
19 that Bayer bought Monsanto and so we're just
20 becoming part of Bayer and having that same name.

21 Q It's not because of the stigma
22 attached to the name Monsanto based on some its
23 history?

24 A That is not my understanding, no.

25 Q No one's spoken to you about that?

1 A No.

2 Q You've not read anything about that?

3 A So in my -- in my -- speaking as in
4 my personal capacity, I have seen speculation in
5 news media but I, in speaking for the company, I
6 have not heard any discussion of that internally.

7 Q Have you heard discussion of it
8 internally within Monsanto?

9 A No, I have not.

10 Q No one's worried about it?

11 A About changing the name; is that
12 correct?

13 Q Right. And the reasons why.

14 A No. Unh-uh.

15 Q Okay. What was glyphosate originally
16 patented for?

17 A So the -- there -- there were some
18 studies that various companies had done looking for
19 uses of glyphosate but the original patent for
20 glyphosate was as the herbicide, and that was March
21 26, 1974.

22 Q It wasn't originally just used and
23 patented for cleaning out industrial boilers and
24 pipes?

25 A That is not correct. So --

1 Q What was it -- what was its use for
2 boilers and pipes?

3 A It did not have a use for that.

4 There was a class of chemicals that were related to
5 glyphosate. They were part of this broader class
6 of phosphonic acids. So glyphosate is a
7 aminomethyl -- an aminomethylphosphonic acid, or
8 and -- sorry, it's a glycine der -- it's a
9 phosphonic acid derivative of glycine. It's been a
10 long day, I apologize.

11 So this broader class of chemicals
12 called phosphonic acids were being looked at by
13 Stauffer Chemical as a way to descale pipes.

14 Glyphosate is named as a hypothetical member of
15 this class in that patent but is not actually
16 identified as one of the subjects of that patent.

17 Q So it wasn't actually used as a pipe
18 or boiler cleaner?

19 A It was not.

20 Q Hmm. I've read in places that it
21 was.

22 A I have -- I have seen that as well.
23 But, yeah, we -- we had to look into the benefits
24 and safety book talks about the patent that
25 Stauffer Chemical has and the history of it.

1 Q You mentioned also that the
2 glyphosate is biodegradable; is that right?

3 A I did not say biodegradable.

4 Q Oh.

5 A It will be degraded by bacteria and
6 fungus in the soil, so it can -- when you -- and --
7 and the way you know, this is when you do a
8 degradation study, you have sterile soil and the
9 glyphosate's in there in the sterile soil, you
10 don't really see much degradation, but when you
11 have soil where there's bacteria and fungi in that
12 soil, glyphosate degrades.

13 Q That's not the same thing as
14 biodegradable?

15 A So, speaking for the company, I don't
16 have an understanding of what the -- the specific
17 legal meanings of biodegradeable are, but based on
18 my understanding, speaking for the company, of
19 those studies where we looked at degradation of
20 glyphosate, you see the degradation occur when
21 there are bacteria and fungi in the soil.

22 Q So is it Monsanto's position that
23 glyphosate is biodegradable under those conditions?

24 A At -- at the current time we do not
25 make that statement.

1 Q Okay. Do you eat organic food?

2 A I don't seek it out but I don't avoid

3 it either.

4 Q Do you recommend it to your family?

5 A No, I do not.

6 Q Are you aware that most non-organic

7 food has glyphosate in it?

8 A I am not aware that that is a correct

9 statement.

10 Q Have you seen studies reporting that?

11 A I -- I have seen reports of

12 glyphosate residues in food but I have not seen

13 reports that most food has glyphosate in it.

14 Q Have you seen reports that beer has

15 glyphosate in it?

16 A Yes, actually, I was responsible for

17 the analysis of some of those studies.

18 Q What about wheat, Wheaties or

19 Cheerios?

20 A I have seen reports of those. I was

21 responsible for the analysis of those studies. And

22 what we found across the board for all those

23 studies was that you'd have to be eating in the

24 hundreds to thousands of times your normal daily

25 intake to be able to reach the -- the reference

1 dose in the US, the allowable exposure level, which
2 is 1 percent of a no effect level.

3 Q Even in Cheerios and Wheaties?

4 A That's correct. I did that analysis
5 as well.

6 Q But there was detectable levels of
7 glyphosate in the Wheaties and Cheerios; correct?

8 A In -- in the samples that were
9 reported, they -- they reported positive
10 detections.

11 Q Did you disagree with the levels
12 found in the reported studies?

13 A We did not have enough information.
14 We review those. One of the things we look at is
15 the analytical data to understand is this a valid
16 method. We did not have enough information
17 typically in those news reports or in the
18 supporting materials to understand truly what was
19 going on there.

20 Q Do you have an idea why glyphosate is
21 showing up in Wheaties and Cheerios and Quaker
22 Oats?

23 A Glyphosate has approved uses in the
24 -- in the US on wheat for weed control in crop, and
25 then in oats there is a -- there is no approved

1 use, you know, in that time frame, that preharvest
2 interval, but wheat there is. So with oats, you
3 know, we believe that's just general usage.

4 Q You don't think it's a result of
5 desiccation?

6 A No, that is not a legal use in the
7 US.

8 Q Are you concerned that the glyphosate
9 is showing up in -- in food products?

10 A No, I am not. All the levels we've
11 seen are well below levels that have already been
12 reviewed and determined to be safe for human health
13 by EPA.

14 Q Have you done any research on whether
15 or not glyphosate substitutes into glycine -- in
16 place of glycine in protein formation?

17 A Yes, we have.

18 Q And what did you find?

19 A We found out it will not.

20 Q And how did you determine that?

21 A Well, one of the things that'll
22 happen, so when you think about amino acids and the
23 way they make up a protein, so this is essentially
24 like Legos or -- or beads as they fit together,
25 there has to be a certain chemical functional unit

on one end that grabs the next amino acid. So I have an amino acid here and another amino acid.

What happens is, with glyphosate, one end is still, looks like an amino acid --

5 Q Looks like glycine?

6 A Yeah, but then the other end is this
7 phosphonic acid. It won't -- it just can't. It's
8 essentially like this, and so the protein would
9 then stop and then it would degrade. So it
10 wouldn't be able to insert itself into protein
11 structure.

12 Q So if it got inserted, it would
13 create sort of a malformed protein that would
14 degrade?

15 A It would -- it would -- it wouldn't
16 be --

17 MR. BRENZA: Beyond the scope.

18 A It would not be malformed. It just
19 wouldn't continue forming at all, and then it would
20 be degraded by the body.

21 Q (BY MR. BAUM) You went over with Mr.
22 Brenza some of the Monsanto's safety studies on
23 glyphosate and the surfactant and formulations. Do
24 you recall discussing those?

25 A I do recall that.

1 Q And just to be clear, Monsanto has
2 not performed a long-term rodent carcinogenicity
3 study of glyphosate-based formulations; is that
4 correct?

5 A That's correct, for the reasons I
6 discussed with Mr. Brenza.

7 Q So notwithstanding any of the
8 epidemiology studies or the genotox studies, any of
9 the mechanistic results, and notwithstanding the
10 IARC findings, it is Monsanto's position that it is
11 not necessary to conduct a long-term carcinogen --
12 rodent carcinogenicity study testing
13 glyphosate-based formulations?

14 A So there -- there are two things
15 there. One, IARC has gone on the record saying
16 their conclusions relate specifically to glyphosate
17 alone and are not meant to say anything about the
18 formulated product. They've -- they've answered
19 that in a question and answer on the website.

20 Additionally, you know, when we look
21 across all that data, the epidemiology data, the
22 animal data, the mechanistic or the cell data, when
23 you look across -- when you look into each group or
24 across all of them together, and that's industry
25 studies and the published literature, what you see,

1 there is nothing in that body of evidence that
2 would tell us that a long-term study on the
3 formulated product is going to answer a question
4 for us in a meaningful way.

5 Q So none of that information is worthy
6 of conducting a long-term carcinogenic -- rodent
7 carcinogenicity study on glyphosate formulations?

8 A We -- we do not -- we believe that
9 all that information taken together tells us that
10 we know glyphosate-based formulation -- or
11 glyphosate-based herbicides, glyphosate itself, the
12 surfactants, do not cause cancer. And then I also
13 discussed with Mr. Brenza about the feasibility of
14 -- of a study, and we believe it is not feasible as
15 well.

16 Q You mentioned that there had been
17 some work done to fix some of the problems that
18 Acquavella observed and that were reported in
19 Exhibit 20, his 1997 concerns regarding the
20 unreliability of the AHS.

21 Do you recall that?

22 A I do recall that.

23 Q And there was something that was done
24 with respect to making the questionnaire data
25 better; is that correct?

1 A It was -- it wasn't about the -- the
2 questionnaire itself. It was the protocol for
3 administering it. They wanted to understand how
4 reliable it was across time.

5 Q They couldn't go back and change the
6 answers to the questionnaires they already had,
7 could they?

8 A No, not to my knowledge.

9 Q So whatever the answers were to those
10 early questionnaires didn't get changed?

11 A No, what they -- what they did is
12 they went back and looked -- the question they had
13 -- the Agricultural Health re -- Study researchers
14 had the question in front of them of how do you
15 know, as you go through time, people give reliable
16 information at two different time points. Can you
17 get the same answer if you ask people one day and
18 then some time later.

19 And they had the opportunity to go
20 back and do that and then they published that --
21 that -- those results showing that they could rely
22 on answers across time in multiple surveys.

23 Q Now, they weren't actually able to
24 fix the exposure misclassification that might occur
25 because back in 1993 there wasn't that much use and

1 then you had the genetically modified crops coming
2 in with it that resulted in an explosion of
3 glyphosate and Roundup use. So they couldn't fix
4 that, could they?

5 A Well, what they did is in the newest
6 study they've looked at that question, you know,
7 and they -- they wanted to see, all right, if we
8 look at the data, you know, with people who have
9 questionnaires all the way through, answering, you
10 know, we have every questionnaire from them, what
11 results do we get? We have another group of people
12 who did not complete both questionnaires, and so
13 they wanted to see is there a difference between
14 these two? You know, we've had to calculate
15 exposures for that second group.

16 And they -- they calculate the
17 outcomes both with and without that second group,
18 the answer doesn't change.

19 Q That was --

20 A And so they concluded that the --

21 Q Go ahead.

22 A -- their -- their use of this method
23 in that second group does not affect the overall
24 results.

25 Q That's an extrapolation?

1 A They call it, um -- I'm trying to
2 remember. The specific term for it is in the
3 publication. I can find that.

4 Q It's a mathematical adjustment?

5 A Yeah, essentially what they're doing
6 is -- is taking it -- you know, it's the way a lot
7 of surveys do where you're trying to match --
8 imputation is the term. And so what they're doing
9 is saying I know all this information about the
10 group that answered every one of my questions, and
11 then what I do is I take that and I match it to
12 this other group where I don't have every answer.

13 Q You're aware that there was a large
14 body of participants that were lost to follow up?

15 A Yeah, I do understand that, and then
16 that's what I was talking about in the -- in the
17 Andreotti study where they looked at the results
18 both with and without those people included to see
19 if the imputation changed anything. They also
20 published their imputation method in the peer
21 reviewed literature.

22 Q So you're aware that it's -- was it
23 somewhere around 37 percent of the participants
24 dropped out?

25 A That's my recollection.

1 Q And you've considered that
2 extrapolating their responses as a valid method?

3 A The -- the, again, the authors of
4 that study published that method. They went
5 through peer review. They also analyzed the
6 results both with and without the imputation used,
7 and they obtained the same result. That's in
8 Andreotti, et al.

9 Q And you think that that's -- the
10 imputation for 37 percent of the respondents
11 actually just essentially making up responses for
12 them is okay?

13 A I don't believe that's made up for
14 them. It's actually a scientifically -- that is a
15 method they have published in the scientific
16 literature. And what they've done is measured
17 against -- they've done the calculation both ways,
18 with and without those people, and shown it did not
19 impact their outcome.

20 Q They don't actually have answers for
21 those -- that 37 percent that was lost to
22 follow-up, do they?

23 A What they did is they have -- they
24 have the group of people where they have answers,
25 is like I was explaining before. They match them

1 with the people where they didn't have answers
2 based on various demographic factors and their
3 farming practices and location. And then you're
4 able to do this imputation.

5 And when they do the analy -- they
6 publish that imputation method, and when they do
7 that im -- that -- the calculation of risk for
8 non-Hodgkin's lymphoma and glyphosate-based
9 herbicide use with and without those people, the
10 answer doesn't change. And the authors concluded
11 there was no impact.

12 Q So I'm going to have to move to
13 strike all that because I just asked a -- a more
14 simple question. I understand all that, but the
15 question I asked is, they didn't actually have
16 answers for those 37 percent of -- that dropped
17 out, did they?

18 A The way they obtained those answers
19 as I described, because they --

20 Q No. They don't have answers, do
21 they?

22 A $s_C = -$

23 Q They have no actual answers from
24 those people, do they?

25 A They have significant amount of data

1 about those people to understand how they fit into
2 this overall demographic of the study so that
3 they're able to match them with people like them to
4 be able to impute. When you do the calculation
5 with and without that imputation, nothing changes.

6 Q Do they have answers for those people
7 that dropped out?

8 A Again, what they do is they match
9 those people because they don't have the answers --

10 Q That's not an answer to my question.
11 Just yes or no?

12 A I'm sorry, may I finish?

13 Q It's yes or -- I already heard that
14 answer. I have that answer. I understand it.
15 What I want to get an answer to is, do they
16 actually have answers from those people, those 37
17 percent that dropped out?

18 A The data that they have is on a
19 portion --

20 Q The answer to that question is no,
21 isn't it?

22 A I'm sorry, may I finish my answer?

23 Q No. You've already -- you keep
24 answering with an explanation of -- of an
25 imputation and that's to replace the fact that

1 there are no actual data from those people.
2 Correct? They have no answers to their
3 questionnaires following their dropping out of the
4 study. Correct?

5 A So I -- I heard two questions there.
6 Could you please repeat your question?

7 Q There -- there is -- there is
8 actually no answers for the 37 percent of the
9 people who dropped out. Correct?

10 A I would disagree with that.

11 Q They answered?

12 A They have answers for them.

13 Q Those people answered?

14 A They have imputation data that tells
15 the researchers about that and they have determined
16 that that imputation method is valid, and also they
17 determined it did not impact the results of that
18 study.

19 Q Okay. So those people did not
20 actually answer questionnaires; correct?

21 A They have -- they have answers for
22 some of the people in that study. Others did they
23 did not have an answer on that questionnaire. They
24 were able to do the analysis with and without those
25 people and determine it did not change the outcome.

1 Q Okay. So I'm just -- I -- I want to
2 conclude my examination as quickly as possible and
3 I just need you to answer that question. Because
4 you know the answer to that, and it's pretty
5 simple.

6 When those people dropped out of --
7 the 37 percent that were lost to follow-up, the
8 Andreotti team could not get answers to
9 questionnaires from them, could they?

10 A They could not.

11 Q Thank you.

12 A Because they were using imputation to
13 calculate it.

14 Q You mentioned that the IARC Monograph
15 and the IARC teams, the working groups, isn't
16 analyze Greim or use Greim?

17 A That's correct.

18 Q Are you aware that starting at page
19 34 of the monograph, they did actually discuss and
20 -- and analyze Greim?

21 A Do you have a document for me to
22 review?

23 MR. BAUM: I -- I looked around. I
24 was trying to find a copy of the monograph.

25 MR. BRENZA: It wasn't marked.

1 MR. BAUM: Yeah, and it wasn't marked
2 in either of the depos, which made it kind of
3 complicated.

4 Q (BY MR. BAUM) So I'm just going to
5 read you a section from the monograph here and --
6 you've -- you've read the monograph, haven't you?

7 A I have read the monograph, yes.

8 Q And are you familiar with section
9 starting at page 34, 3.1.3, Review Articles, says,
10 "Greim, et al., have published a review article
11 containing information on five long-term bioassay
12 feeding studies in mice"?

13 Do you recall that section?

14 A I -- i do recall reading something
15 like that.

16 Q So they did actually read and discuss
17 the Greim article; correct?

18 A They -- so they -- they address it in
19 the monograph, but what's strange to me about that
20 is that they make a claim that they didn't have
21 enough information to evaluate the data, but they
22 had four studies that were in Greim that would have
23 shown them these data are done according to OECD
24 protocols, international protocols, also according
25 to GLPs, they would know that these are matched up

1 data sets.

2 They also had an author of the Greim
3 paper there as an observer and they had the
4 opportunity then to ask him, we have a data gap, we
5 have a perceived data gap. Could we have
6 additional information? They did not avail
7 themselves of any of those opportunities.

8 Q I just want to be clear. IARC did
9 have the Greim paper and they did discuss it in
10 their monograph; correct?

11 A They discussed it but they failed to
12 consider the information and they failed to reach
13 out to the observer, Christian Strupp, who was an
14 author and would have had the information that they
15 claim not to have.

16 Q Okay. So you mentioned that the
17 ATSDR had not released its analysis yet?

18 A That is correct. It is still listed
19 as undergoing peer review.

20 Q And you said you were not aware of
21 Monsanto slowing or impeding its being generated?

22 A That's correct.

23 Q Are you familiar with the -- the
24 emails and texts of Dan Jenkins saying they ought
25 to get a medal for interfering with the ATSDR study

1 being published?

2 A Yes, we discussed those earlier with
3 Mr. Wisner.

4 Q So you -- are you pretending that
5 didn't happen?

6 A What I'm -- my -- my rec -- so as I
7 read those, you know, Dan is attributing
8 statements, you know, he's -- he's got quotes in
9 there. As you read it, it's -- it's clear this
10 isn't a quotation of -- of actual language and our
11 understanding is that when Dr. Rowland addressed
12 this, he said he had no recollection of making any
13 of those statements to doc -- to Mr. Jenkins.

14 Q He didn't recall anything in his
15 depo. Did you look at his deposition?

16 A I've read portions of it.

17 Q Did you find it credible?

18 A I did.

19 Q You did?

20 A I did.

21 Q You -- you went over Exhibit 74,
22 which was the Summary of ORD comments on OPP's
23 glyphosate cancer assessment.

24 Do you recall that?

25 A Yes, I do recall that.

1 Q Can you pull that up?

2 A Yes.

3 Q And you focused in on the -- their
4 defining the limited evidence by IARC.

5 Do you remember that?

6 A Yes, I do.

7 Q Relative to epidemiology?

8 A I do recall that.

9 Q Was that the only arm of scientific
10 inquiry that ORD relied upon or these scientists
11 relied upon for issuing their opinions?

12 A That was -- that was part of the
13 information they considered.

14 Q But they also considered the
15 toxicology and mechanistic studies as well;
16 correct?

17 A They -- so what they were doing was
18 looking at the -- the CARC report that -- that was
19 being prepared for public release and so they
20 looked across the CARC report.

21 Q And they found a number of
22 discrepancies or things they disagreed with;
23 correct?

24 A They -- they shared some comments,
25 you know, and again the challenge here is they're

1 saying ORD, there's no -- the ORD reviewers, they
2 don't identify who those people are in this
3 document so it's hard to understand is this 20, is
4 it 2? We don't know that.

5 Q So just to be clear, they didn't rely
6 just on the limited epidemiology per the IARC
7 definition of "limited"; correct? They -- they
8 relied on some of the toxicology mechanistic
9 results as well?

10 A Yes. They actually relied on -- on
11 all fourteen of those studies, ten of which IARC
12 did not consider, as well as the mechanistic data
13 that IARC did not consider.

14 Q So it would have just like --

15 A (Inaudible) pesticide programs.

16 Q -- if the jury were to get the idea
17 that you -- you -- that the ORD had only looked at
18 epidemiology based on your testimony, that would be
19 incorrect?

20 A So again with this document, I think
21 the important part is to be able, you know, I think
22 only ORD can really speak to who are these people.
23 There's no information about who they were and what
24 they were doing.

25 Q So on the second page there, in the

1 second paragraph, you see where it says "OPP (and
2 EFSA) focused on pairwise comparisons" --

3 A I do see that.

4 Q -- "which were generally not
5 significant), while IARC also uses trend tests,
6 which yielded several significant results."

7 Do you see that?

8 A I do see that.

9 Q And "In a few cases, OPP reported
10 trend test results that differed from those of IARC
11 but did not report which test they used. EPA's
12 Cancer Guidelines state that 'Trend tests and
13 pairwise comparison tests are the recommended tests
14 for determining whether chance, rather than a
15 treatment-related effect, is a plausible
16 explanation for an apparent increase in tumor
17 incidence. Significance in either kind of test is
18 sufficient to reject the hypothesis that chance
19 accounts for the result.'"

20 Do you see that?

21 A I do see those words.

22 Q So the ORD was pointing out here that
23 -- or these scientists for ORD were pointing out
24 that it was a mistake actually by OPP and EFSA and
25 the EPA to disregard the trend test, isn't it?

1 A So there -- there's nothing here
2 saying EFSA was doing it incorrectly. This is a --
3 the statement is regarding EPA's Cancer Guidelines.
4 So EFSA has the way they look at studies. EPA has
5 their rules for how they look at studies. This is
6 something actually -- so this is the CARC report.
7 This is before the actual white paper comes out
8 that replaces, you know, essentially updates the
9 information that was contained in the CARC report.

10 In that, in that white paper, they
11 have statistical analyses. Those were reviewed at
12 the SAP, the Science Advisory Panel. This -- this
13 comment was repeated. They have since revised
14 their statistical analysis to include other
15 characterizations to try to make it more consistent
16 with the Cancer Guidelines.

17 And so now we have updated statistics
18 and EPA has again concluded that there is no
19 evidence of carcinogenicity from these animal
20 studies.

21 Q Well, isn't this pointing out that
22 there, amongst -- this, amongst other methodology
23 supplied by the EPA, were departures from the EPA
24 guidelines for analyzing animal studies?

25 A They were -- they were -- so as I

1 read this comment, what they're saying is we have
2 -- the Cancer Guidelines state and they have
3 information about how to do statistical analyses of
4 these studies, the white paper that EPA is now
5 using reflects that. And so this is essentially a
6 comment on a report that is no longer the primary
7 line of evidence for EPA.

8 Q Well, one -- one of the things I'm
9 trying to get at I think is that it seems like if
10 you have the opportunity or Monsanto has the
11 opportunity to read an analysis in a way that shows
12 there's no risk, they'll find that, and if there is
13 a way of reading where there is a risk, they'll
14 ignore it. Is that their protocol?

15 A That is not our protocol.

16 Q Doesn't it seem like that's what
17 they're doing, though?

18 A No, it does not.

19 Q So IARC did not just rely on
20 epidemiology; right?

21 A That is correct.

22 Q And they didn't rely just on
23 toxicology; right?

24 A They relied on animal studies and
25 epidemiology to reach their conclusion.

1 Q And the animal studies and
2 mechanistic studies corroborated the -- some of the
3 epidemiology -- epidemiological findings of a
4 connection between Roundup or glyphosate and
5 non-Hodgkin's lymphoma; correct?

6 A That is not correct. They relied
7 solely on the four animal studies and then the
8 limited evidence from the epidemiology studies to
9 make their conclusion.

10 Q They didn't rely on mechanistic
11 studies?

12 A It did not play a role in that
13 classification. They note it at the end that they
14 have it as well but they say limited in humans from
15 the epidemiology data, then they present the animal
16 conclusions, and they say there you go, 2A.

17 Q Well, actually, I was looking at, I
18 think the conclusions. So it says here in the
19 rationale on page 78, "In making this overall
20 evaluation, the working group noted that the
21 mechanistic and other relevant data support the
22 classification of glyphosate in group 2A."

23 Do you recall that?

24 A I do recall seeing that. They're not
25 saying that is the reason they're making that

1 classification. They're just noting that there is
2 -- they have mechanistic data and they believe it
3 supports that classification. But when you look at
4 the actual basis of the classification, it is the
5 limited evidence in humans as well as the animal
6 studies that they use to -- as the basis for that
7 classification.

8 Q And so you're disregarding this
9 statement here that says "There is strong evidence
10 that exposure to glyphosate or glyphosate-based
11 formulations is genotoxic based on studies in
12 humans in vitro and studies in experimental --
13 animals -- animals. One study in several
14 communities, as an individual is exposed to
15 glyphosate-based formulations, also found
16 chromosomal damage in blood cells. In this study
17 markers of chromosomal damage, micronucleus
18 formation, were significantly greater after
19 exposure than before exposure in the same
20 individuals. There is strong evidence that
21 glyphosate, glyphosate-based formulations, and AMPA
22 can act to induce oxidative stress based on studies
23 in experimental animals and in studies humans --
24 studies -- in studies and humans in vitro. This
25 mechanism has been challenged experimentally by

1 administering antioxidants which abrogated the
2 effects of glyphosate on oxidative stress."

3 So this summary right here
4 identifying, specifies -- specifying the rationale
5 summarizes mechanistic and toxicological results
6 that are supportive of the 2A classification;
7 correct?

8 A The IARC identifies those as being
9 additional information that supports their
10 classification but they do not say their
11 classification is based on that.

12 Q You're just ignoring that?

13 A I am not ignoring that. What I am
14 telling you is that when you look above, they talk
15 about how they made that classification and they
16 talk about the evidence in -- in the epidemiology
17 studies and the evidence in animals as being the
18 basis for their 2A classification.

19 Q So "In making this overall
20 evaluation, the working group noted that the
21 mechanistic and other relevant data support the
22 classification of glyphosate in group 2A." That's
23 -- pretty clearly states that there is support in
24 the mechanistic data and toxicological data for the
25 2A finding; correct?

1 A What -- what they're saying is that
2 they -- the mechanistic data, as they interpret it,
3 supported their conclusion of a 2A classification
4 using human epidemiology data and animal data. I'm
5 not trying to say that it wasn't -- all I'm saying
6 is they made the classification and then they noted
7 the mechanistic data were supportive of their
8 decision.

9 Q That data --

10 A That's how they wrote it.

11 Q Okay. That data, the -- that I read
12 in from that last portion of the IARC, you've read
13 that; correct?

14 A Well, I'd have to know the specific
15 citations that they're relying on.

16 Q It's -- okay, well, you've read
17 this --

18 A Are there studies --

19 Q -- section of the IARC Monograph;
20 correct?

21 A Yes, but again, if we're going to
22 discuss the specific studies, I'd have to know what
23 those citations are and be able to have those
24 citations.

25 Q So what I -- you have read the IARC

1 Monograph?

2 A I have done that, yes.

3 Q Okay. And what they are referring to
4 in the strong evidence and sufficient evidence in
5 the mechanistic and toxicological study is evidence
6 of a possible carcinogenicity related to
7 glyphosate-based formulations, isn't it?

8 A No. The IARC, again, is very
9 specific. They say this is solely about glyphosate
10 itself. That is in their Q and A.

11 Q No, I'm --

12 A The monograph itself is on
13 glyphosate.

14 Q On what I just read you said that it
15 -- that "There is strong evidence that exposure to
16 glyphosate or glyphosate-based formulations is
17 genotoxic based on studies in humans in vitro and
18 studies in experimental animals. One study in
19 several communities and individuals exposed to
20 glyphosate-based formulations also found
21 chromosomal damage."

22 They are actually addressing
23 glyphosate-based formulations in the mechanistic
24 data and in the epidemiology, aren't they -- are
25 they not?

1 A They are bringing this information up
2 but when IARC spoke on their own website about is
3 this about the formulation or is this about
4 glyphosate itself, they said this is about
5 glyphosate itself. It's on their website. We
6 don't have the document here, but it can be looked
7 up.

8 Q So you're choosing to focus on that
9 line and with that explanation and ignore what's
10 here in the -- the monograph?

11 A I am choosing to focus on IARC's own
12 words. Where they were asked does this -- is this
13 about the formulations or glyphosate itself, they
14 said it's about glyphosate. That was their
15 statement.

16 Q This is evidence, some evidence,
17 whether you like it or not, that there is an
18 association between glyphosate and glyphosate-based
19 formulations and non-Hodgkin's lymphoma, is it not?

20 A No, it is not evidence of that.

21 Q You're aware that one of our
22 arguments in litigation is that Monsanto is
23 choosing to disregard evidence in favor of ignoring
24 it so they wouldn't have to put a warning on their
25 products. You are aware of that?

1 A I'm generally aware of that, and we
2 disagree.

3 Q All right. So last thing I wanted to
4 go over with you is Exhibit 93, the Benefits and
5 Safety of Glyphosate?

6 A Yes.

7 Q And refer you to page 23. And the
8 subsection 3, Safety of Glyphosate?

9 A I see that.

10 Q And the first sentence there says,
11 "Over more than four decades, glyphosate has
12 undergone extensive testing and assessment to
13 evaluate its safety for a wide range of herbicidal
14 uses."

15 Do you see that?

16 A I do see that.

17 Q That incorporates the IBT studies,
18 doesn't it?

19 A The, um -- so it -- it would be all
20 the studies that have ever been conducted.

21 Q So you're relying here on studies
22 that you know to have been deemed to be fraudulent;
23 correct?

24 A But we do not know those to be deemed
25 fraudulent. We -- we -- our understanding is that

1 EPA was not able to identify the raw data
2 supporting the conclusions, and in those case we
3 repeated those studies, but they were not the only
4 studies available at the time examining the safety
5 of glyphosate.

6 Q Well, in order to say four decades,
7 you have to reach back to the IBT studies; right?

8 A No, that's not true. We --

9 Q Where -- where is the four decades --

10 A That is -- that is a time period
11 we're not --

12 Q -- don't have the --

13 THE REPORTER: Gentlemen.

14 THE WITNESS: I'm sorry. I'm sorry.

15 MR. BRENZA: Let -- the witness
16 should be allowed to finish his answer.

17 MR. BAUM: Go back to the question I
18 asked about -- that incorporates four decades.
19 That -- the four decades incorporates the IBT
20 studies.

21 THE REPORTER: "Well, in order to say
22 four decades, you have to reach back to the IBT
23 studies; right?"

24 A That is incorrect.

25 Q (BY MR. BAUM) That's --

1 A I am not finished, please.

2 Q That's answered my question.

3 MR. BEROUKHM: Don't -- don't cut
4 him off.

5 A Yeah, I -- I would like to be able to
6 finish my response, please.

7 Q (BY MR. BAUM) Finish your question.

8 A Thank you.

9 Q Hm-hm.

10 A So at that time, we have already gone
11 over this document, there were studies, long-term
12 studies, not necessarily the -- the oncogenicity
13 study at the time, but we had other studies that
14 addressed the safety of glyphosate at that time
15 that had nothing to do with IBT.

16 Q Okay.

17 A That is an EPA record.

18 Q All right. But -- I think that's all
19 for that I think.

20 MR. BAUM: I think that's all the
21 questions I have.

22 THE WITNESS: All right. Thank you
23 very much.

24 MR. BAUM: Thank you.

25 MR. BRENZA: Can we just take one

1 minute and then we may be done too.

2 THE VIDEOGRAPHER: We are going off
3 the record at 7:55 p.m.

4 (A recess was taken.)

5 THE VIDEOGRAPHER: We are back on the
6 record at 7:58 p.m.

7 RE-EXAMINATION

8 QUESTIONS BY MR. BRENTA:

9 Q Dr. Reeves, you were -- you were
10 asked a -- a series of questions about the
11 Agricultural Health Study and how the authors of
12 that study dealt with individuals that didn't
13 complete the second survey.

14 Remember that?

15 A I do remember that.

16 Q And Mr. Baum said that they had
17 dropped out of the study and that they were no
18 longer in the study; right?

19 A They were -- so they had survey data
20 on the first round. They were missing survey data
21 on that second.

22 Q Okay. So with respect to the 37
23 percent that you were being asked about, they did
24 fill out a survey?

25 A They filled out the first survey, and

1 then we had health data on them throughout.

2 MR. BRENZA: Okay, that's all I
3 wanted to be sure about. Thank you.

4 THE WITNESS: Thank you.

5 MR. BRENZA: Anything further?

6 MR. BAUM: Well, the -- I left out a
7 question. Do you mind if I go back to it? Or --

8 MR. BRENZA: Yeah, it's fine, if you
9 want to.

10 MR. BAUM: It's all right.

11 THE VIDEOGRAPHER: We are going off
12 the record at 7:59 p.m.

13 (Wherein, the taking of the instant
14 deposition ceased at 7:59 p.m.)

15 (Deposition to be read and signed by
16 the witness.)

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1 CERTIFICATE OF REPORTER

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3 I, TARA SCHWAKE, a Registered
4 Professional Reporter and Notary Public within and
5 for the State of Missouri, do hereby certify that
6 the witness whose testimony appears in the
7 foregoing deposition was duly sworn by me; that the
8 testimony of said witness was taken by me to the
9 best of my ability and thereafter reduced to
10 typewriting under my direction; that I am neither
11 counsel for, related to, nor employed by any of the
12 parties to the action in which this deposition was
13 taken, and further that I am not a relative or
14 employee of any attorney or counsel employed by the
15 parties thereto, nor financially or otherwise
16 interested in the outcome of the action.

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20 Notary Public in and for
21 The State of Missouri

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ERRATA SHEET

2 Witness Name: WILLIAM REEVES

Case Name: IN RE: ROUNDUP PRODUCTS LIABILITY

3 LITIGATION THIS DOCUMENT RELATES TO: ALL
ACTIONS

4 Date Taken: JANUARY 24, 2019

5 Page # _____ Line # _____

Should read: _____

6 Reason for change: _____

7

8 Page # _____ Line # _____

9 Should read: _____

10 Reason for change: _____

11

12 Page # _____ Line # _____

13 Should read: _____

14 Reason for change: _____

15

16 Page # _____ Line # _____

17 Should read: _____

18 Reason for change: _____

19

20 Page # _____ Line # _____

21 Should read: _____

22 Reason for change: _____

23

24 Witness Signature: _____

25

1 STATE OF _____)

2

3 COUNTY OF _____)

4

5 I, WILLIAM REEVES, do hereby certify:

6 That I have read the foregoing deposition;

7 That I have made such changes in form

8 and/or substance to the within deposition as might

9 be necessary to render the same true and correct;

10 That having made such changes thereon, I
11 hereby subscribe my name to the deposition.

12 I declare under penalty of perjury that the
13 foregoing is true and correct.

14 Executed this _____ day of _____,
15 20____, at _____.

16

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19

20 WILLIAM REEVES

21

22

23 NOTARY PUBLIC

24 My Commission Expires:

25