

SUPERIOR COURT OF CALIFORNIA

COUNTY OF ALAMEDA

BEFORE THE HONORABLE WINIFRED Y. SMITH, JUDGE PRESIDING

DEPARTMENT NUMBER 21

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COORDINATION PROCEEDING)
SPECIAL TITLE (RULE 3.550))

ROUNDUP PRODUCTS CASE)

JCCP No. 4953

THIS TRANSCRIPT RELATES TO:)

Pilliod, et al.)

Case No. RG17862702

vs.)

Monsanto Company, et al.)

Pages 5455 - 5731

Volume 32

Reporter's Transcript of Proceedings

Wednesday, May 8, 2019

Reported by: Lori Stokes, CSR No. 12732, RPR
Stenographic Court Reporter



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I N D E X

Wednesday, May 8, 2019

	<u>PAGE</u>	<u>VOL.</u>
Jury Instructions	5472	32
Closing Argument by Mr. Wisner	5495	32
Closing Argument by Mr. Ismail	5617	32
Rebuttal Closing Argument by Mr. Wisner	5708	32
Final Jury Instructions	5720	32

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 508	Email Re: Meta-Analysis		5468	32
Exhibit 1019	(Pages 1-79) IARC (2015). International Agency for Research on Cancer. Monograph on Glyphosate. Volume 112. Pages 1-79		5468	32
Exhibit 1083	EPA, Transmission of Meeting Minutes and Final Report of the December 13-16, 2016 FIFRA SAP Meeting Held to Consider and Review Scientific Issues Associated with EPA's Evaluation of the Carcinogenic Potential of Glyphosate		5468	32
Exhibit 1364	Summary of the IBT Review Program - Office OF Pesticide Programs		5468	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 2422	Pilliod, Alva Deposition Exhibit 3-B - Photographs, 5 Total		5468	32
Exhibit 4019	(Pages 2-8) 64 Fed. Reg. 66,108, 66,114 (Nov. 24, 1999) (to be codified at 40 C.F.R. pt. 180)		5470	32
Exhibit 4020	(Pages 2-18) 67 Fed. Reg. 60,934, 60,950 (Sept. 27, 2002) (to be codified at 40 C.F.R. pt. 180)		5470	32
Exhibit 4024	(Pages 2-8) 73 Fed. Reg. 73,586 (Dec. 3, 2008) (to be codified at 40 C.F.R. pt. 180)		5470	32
Exhibit 4027	78 Fed. Reg. 25,396, 25,401 (May 1, 2013) (to be codified in 40 C.F.R. pt. 180)		5470	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 4136	(Pages 3, 10-16) Australian Pesticides and Veterinary Medicines Authority (APVMA), Final Regulatory Position: Consideration of the Evidence for a Formal Reconsideration of Glyphosate (2017), https://apvma.gov.au/ sites/default/files/p ublication/26561-glyp hosate-final-regulato ry-position-report-fi nal_0.pdf		5470	32
Exhibit 4137	(Pages 3-93; Subset 15-23) Australian Pesticides and Veterinary Medicines Authority, Regulatory Position: Consideration of the Evidence for a Formal Reconsideration of Glyphosate (Sept. 2016), https://apvma.gov.au/ sites/default/files/p ublication/20701-glyp hosate-regulatory-pos ition-report-final.pd f		5470	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 4158	BAuA, Proposal for Harmonized Classification and Labeling: N (phosphonomethyl)glycine; Glyphosate (ISO), CLH Report for Glyphosate (2016), https://echa.europa.eu/documents/10162/13626/clh_report_glyphosate_en.pdf .		5470	32
Exhibit 4203	BfR, Renewal Assessment Report: Glyphosate (Volume 1) Report and Proposed Decision (Dec. 18, 2013)		5470	32
Exhibit 4670	Donliner, L. and M. Stewart, Decision Document: Pre-Harvest Use of Glyphosate Herbicide, Agriculture Canada (June 5, 1992), http://publications.gc.ca/collections/Collection/H113-4-92-02E.pdf		5470	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 4722	ECHA, Opinion: Proposing harmonized classification and labelling at EU level of glyphosate (ISO); N-(phosphonomethyl)gl ycine, Committee for Risk Assessment RAC (Mar. 15, 2017), https://echa.europa.e u/documents/10162/2f8 b5c7f-030f-5d3a-e87e- 0262fb392f38		5470	32
Exhibit 4727	(Pages 1-20) EFSA, Conclusion on the Peer Review of the Pesticide Risk Assessment of the Active Substance Glyphosate, 13 EFSA Journal 4302 (2015), https://efsa.onlineli brary.wiley.com/doi/e pdf/10.2903/j.efsa.20 15.4302		5470	32
Exhibit 4798	Email from Heydens to Kier Re: meeting Prof Parry 15 Feb 2001 (Feb. 19, 2001)		5470	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 4873	(Pages 2, 12-34 126-144) EPA, Glyphosate Issue Paper: Evaluation of Carcinogenic Potential (Sept. 12, 2016), https://www.epa.gov/sites/production/files/2016-09/documents/glyphosate_issue_paper_evaluation_of_carcinogenic_potential.pdf		5470	32
Exhibit 4895	(Pages 2-52) EPA, Memorandum from Davies et al. on Alkyl Amine Polyalkoxylates (JITF CST 4 Inert Ingredients). Human Health Risk Assessment to Support Proposed Exemption from Requirement of a Tolerance When Used as an Inert Ingredient in Pesticide Formulations to Leifer & Shah (Apr. 3, 2009), https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0738-0005		5470	32

I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 4900	(Pages 2-20) EPA, Memorandum from Dykstra & Ghali on Second Peer Review of Glyphosate to Taylor and Rossi (Oct. 30, 1991), https://archive.epa.gov/pesticides/chemicalsearch/chemical/foia/web/pdf/103601/103601-265.pdf		5470	32
Exhibit 4916	(Pages 2-28) EPA, Memorandum from Perron et al. on Glyphosate: Draft Human Health Risk Assessment in Support of Registration Review to Newcamp & Anderson (Dec. 12, 2017), https://www.regulations.gov/document?D=EPA-HQ-OPP-2009-0361-0068		5470	32
Exhibit 4920	(Pages 2-79) EPA, Memorandum from Rowland & Middleton on Glyphosate: Report of the Cancer Assessment Review Committee to Smith & Nguyen (Oct. 1, 2015), https://www.regulations.gov/document?D=EPA-HQ-OPP-2016-0385-0014		5470	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 4939	(Pages 2, 8-101) EPA, Reregistration Eligibility Decision (RED) Glyphosate (Sept. 1993), https://www3.epa.gov/ pesticides/chem_searc h/reg_actions/reregis tration/red_PC-417300 _1-Sep-93.pdf		5470	32
Exhibit 4941	(Pages 2, 130-145) EPA, Revised Glyphosate Issue Paper: Evaluation of Carcinogenic Potential (Dec. 12, 2017), https://cfpub.epa.gov /si/si_public_file_do wnload.cfm?p_download _id=534487		5470	32
Exhibit 4960	(Pages 1-7) European Commission, Review report for the active substance glyphosate (Jan. 21, 2002), http://www.ciafa.org. ar/files/WwicZjTlR8oy vkVkPTLJwIeYlT8akSrDA A6iL3mh.pdf		5470	32

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I N D E X

E X H I B I T S

<u>TRIAL EXHIBITS</u>	<u>DESCRIPTION</u>	<u>IDEN</u>	<u>EVID</u>	<u>VOL.</u>
Exhibit 5129	(Pages 3, 8-16) Health Canada, Glyphosate Re-evaluation Decision RVD2017-01 (Apr. 28, 2017), http://publications.gc.ca/collections/collection_2017/sc-hc/H113-28/H113-28-2017-1-eng.pdf		5470	32
Exhibit 5629	(Pages 1-16) NTP, Report on Carcinogens, Eleventh Edition: Carcinogen Profiles, U.S. Dept. of Health and Human Services (11th ed. 2004)		5470	32
Exhibit 6481	New Zealand Environmental Protection Agency, Review of the Evidence Relating to Glyphosate and Carcinogenicity (Aug. 2016)		5470	32
Exhibit 6797	(Pages 21, 23, 25, & 28)		5470	32

1 Wednesday, May 8, 2019

8:41 a.m.

2 (The following proceedings were heard out of
3 the presence of the jury:)

4 **MR. EVANS:** Your Honor, the issue is we
5 understood that your order on the original request for
6 judicial notice plus the supplemental request for
7 judicial notice, those documents that you took judicial
8 notice of, were admitted into evidence and were going
9 back to the jury. So that's where we've prepared our
10 defense exhibit binders. Apparently, the plaintiffs
11 have a different understanding of that.

12 **MR. WISNER:** In your order, you specified
13 what's judicially noticed and what's admitted. And, in
14 the supplemental, there's no discussion of admission.

15 **THE COURT:** Admitted. That was my intention.
16 If I took judicial notice, it would be admitted.

17 **MR. EVANS:** That's what I understood.

18 **MR. WISNER:** Okay.

19 **THE COURT:** I selected what they could see
20 based on what I thought was appropriate for the jury to
21 consider, which is why I -- I'm sorry. It was my
22 mistake not to say "admitted" in the second order, which
23 is what I should have done.

24 **MR. WISNER:** That's all right. Just to
25 clarify.

1 **MR. EVANS:** Thank you.

2 (Recess taken from 8:42 a.m. to 8:44 a.m.)

3 **MR. WISNER:** These exhibits were admitted, but
4 they didn't appear in the record. So I'll just read
5 them in.

6 Exhibit 508, 1019.

7 **THE COURT:** Hold on. Wait. Wait, wait, wait.

8 Okay. I just want to wait until we start
9 letting people in the courtroom. It's going to be
10 pretty cluttered.

11 **MR. WISNER:** It's Exhibit 1019, but that's
12 only through page 79, as -- according to the judge's
13 rulings yesterday.

14 1083, 1364, 2422.

15 (Trial Exhibits 508, 1019 (pgs. 1-79), 1083,
16 1364, and 2422 received in evidence.)

17 **THE COURT:** Okay. Thank you.

18 **MR. EVANS:** And, Your Honor, on the defense,
19 we'll just read into evidence -- or read 4019, pages 2
20 through 8; 4020, pages 2 through 18; 4024, pages 2 to 8;
21 4027; 4136, pages 10 through 16; 4137, pages 15 to 23;
22 4137, pages 3 and 93; 4158; 4203; 4670.

23 **THE COURT:** Is that it?

24 **MR. EVANS:** No. We've got another binder.
25 Can I just take a moment, Your Honor?

1 **THE COURT:** Sure.

2 **MR. EVANS:** So I need to correct. It's 4136,
3 pages 3 -- okay. I'm now confusing myself.

4 4136, pages 10 through 16; 4137, pages 3 to
5 93; and I believe 4137, pages 15 to 23, is a subset of
6 that.

7 4722; 4727, pages 1 through 20; 4798; 4873,
8 pages 12 through 34; 4895, pages 2 to 52; 4900, pages 2
9 through 20; 4916, pages 2 to 28; 4920, pages 2 to 79;
10 4939, pages 8 through 101.

11 4941, pages 130 through 145; 4960, pages 1
12 through 7; 4129, pages 8 through 16; 5194 -- I'm sorry.
13 Did I say 5129, 8 through 16?

14 **MR. BROWN:** Yes.

15 **MR. EVANS:** Okay. 5629, pages 1 through 16;
16 6481; 6797, pages 21, 23, 25, and 28.

17 And, Your Honor, as the record, I think, is
18 clear -- I'll just make it for now -- the judicially
19 noticed documents, we move for admission of all the
20 pages. Your Honor had limited it to the pages that I
21 read, but we still moved on the entire exhibits.

22 **MR. WISNER:** And, Your Honor, for the record,
23 all the exhibits that were read in are being admitted
24 over plaintiffs' objection, with the exception of
25 Exhibit 4798 and 6795.

1 **THE COURT:** Okay. Thank you.

2 (Trial Exhibits 4019 (pgs. 2-8), 4020 (pgs.
3 2-18), 4024 (pgs. 2-8), 4027, 4136 (pgs. 3,
4 10-16), 4137 (pgs 3-93; subset 15-23), 4158,
5 4203, 4670, 4722, 4727 (pgs. 1-20), 4798,
6 4873 (pgs. 2, 12-24, 126-144), 4895 (pgs.
7 2-52), 4900 (pgs. 2-20), 4916 (pgs. 2-28),
8 4920 (2-79), 4939 (pgs. 2, 8-101), 4941 (2,
9 130-145), 4960 (pgs. 1-7), 5129 (pgs. 3,
10 8-16), 5629 (pgs. 1-16), 6481, and 6797 (pgs.
11 21, 23, 25, & 28) received in evidence.)

12 **THE COURT:** Is that it?

13 **MR. WISNER:** Yes.

14 **THE COURT:** Okay. Thank you. So let me find
15 out where we are with the jurors.

16 (Recess taken from 8:50 a.m. to 9:18 a.m.)

17 **THE COURT:** Good morning, ladies and
18 gentlemen.

19 Okay. So today is something we've been
20 talking about for some time. And it is the day that the
21 parties will give their closing arguments after I read
22 the instructions.

23 I'm going to read the instructions first, of
24 course, because it will give you a legal framework
25 within which to consider the closing arguments of both

1 the plaintiffs and defendants and the legal framework
2 within which to consider the evidence and to reach your
3 verdict.

4 So the instructions are very carefully crafted
5 and agreed upon by the parties and the Court, so I will
6 be reading them to you.

7 At the close of the reading of the first --
8 we'll have a few at the end about deliberations, but all
9 of the statements of law that the parties will be
10 arguing will be given to you before they begin their
11 argument.

12 And at the end I'll have a few that just give
13 you some direction about how to deliberate, what you
14 need to do in reaching a verdict.

15 So I'm going to be reading these to you, and I
16 need my reading glasses to do that.

17 **MR. WISNER:** Your Honor, do you want to hand a
18 copy to the jurors?

19 **THE COURT:** I'm sorry. Yes.

20 The court attendant is going to give you each
21 a copy of the instructions that I'm reading. And you'll
22 have that to take into the jury room with you when you
23 deliberate.

24 I would appreciate your attention right now,
25 so just follow what I'm saying. The reason I give you

1 the copies -- you're certainly not going to remember it,
2 and you certainly should have a copy -- but I would
3 prefer if you listen to what I'm saying right now. But
4 that's just to help you follow along with what I'm
5 saying.

6 Does everybody have a copy?

7 Thank you.

8 **JURY INSTRUCTIONS**

9 **THE COURT:** Members of the jury, you have now
10 heard all of the evidence. The attorneys will have one
11 last chance to talk to you in closing argument. But,
12 before they do, it is my duty to instruct you on the law
13 that applies to this case. You must follow these
14 instructions as well as those that I previously gave
15 you. You will have a copy of my instructions with you
16 when you go into the jury room to deliberate. I have
17 provided each of you with your own copy of the
18 instructions.

19 You must decide what the facts are. You must
20 consider all of the evidence and then decide what you
21 think happened. You must decide the facts based on the
22 evidence admitted in this trial.

23 Do not allow anything that happens outside
24 this courtroom to affect your decision. Do not talk
25 about this case or the people involved in it with

1 anyone, including family and persons living in your
2 household, friends, coworkers, spiritual leaders,
3 advisors, or therapists. Do not do any research on your
4 own or as a group. Do not use dictionaries or other
5 reference materials.

6 These prohibitions on communications and
7 research extend to all forms of electronic
8 communications. Do not use any electronic devices or
9 media, such as a cell phone or smartphone, PDA,
10 computer, tablet device, the internet, any internet
11 service, any text or instant messaging service, any
12 internet chat room, blog, or website, including social
13 networking websites, or online diaries to send or
14 receive any information to or from anyone about this
15 case or your experience as a juror until after you have
16 been discharged from jury duty.

17 Do not investigate the case or conduct any
18 experiments. Do not contact anyone to assist you, such
19 as family, accountant, doctor, or lawyer. Do not visit
20 or view the scene or any event involved in this case.
21 If you happen to pass by the scene, do not stop or
22 investigate.

23 All jurors must see or hear the same evidence
24 at the same time. Do not read, listen to, or watch any
25 news accounts of this trial. You must not let bias,

1 sympathy, prejudice, or public opinion influence your
2 decision.

3 If you violate any of these prohibitions on
4 communications and research, including prohibitions on
5 electronic communications and research, you may be held
6 in contempt of court or face other sanctions. That
7 means that you may have to serve time jail time, pay a
8 fine, or face other punishment for that violation.

9 I know it sounds a little harsh. We're way
10 down the line.

11 I will now tell you the law that you must
12 follow to reach your verdict. You must follow the law
13 exactly as I give it to you even if you disagree with
14 it. If the attorneys have said anything different about
15 what the law means, you follow what I say.

16 In reaching your verdict, do not guess what I
17 think your verdict should be from something I may have
18 said or done.

19 Pay careful attention to all the instructions
20 that I give you. All the instructions are important
21 because, together, they state the law that you will use
22 in this case. You must consider all of the instructions
23 together.

24 After you have decided what the facts are, you
25 may find that some instructions do not apply. In that

1 case, follow the instructions that do apply and use them
2 together with the facts to reach your verdict.

3 If I repeat any ideas or rules of law during
4 my instructions, that does not mean that these ideas or
5 rules are more important than the others. In addition,
6 the order in which I give the instructions does not make
7 any difference.

8 You must not consider whether any of the
9 parties in this case has insurance. The presence or
10 absence of insurance is totally irrelevant. You must
11 decide this case based only on the law and the evidence.

12 You must decide what the facts are in this
13 case only from the evidence you have seen or heard
14 during the trial, including any exhibits that I admit
15 into evidence. Sworn testimony, documents, or anything
16 else may be admitted into evidence. You may not
17 consider as evidence anything that you saw or heard when
18 court was not in session, even something done or said by
19 one of the parties, attorneys, or witnesses.

20 What the attorneys say during trial is not
21 evidence. In their opening statements and closing
22 arguments, the attorneys talk to you about the law and
23 the evidence. What the lawyers say may help you
24 understand the law and the evidence, but their
25 statements and arguments are not evidence.

1 The attorneys' questions are not evidence.
2 Only the witnesses' answers are evidence. You should
3 not think that something is true just because an
4 attorney's question suggested that it was true.

5 However, the attorneys for both sides have
6 agreed that certain facts are true. This agreement is
7 called a stipulation. No other proof is needed, and you
8 must accept those facts as true in this trial.

9 Each side had the right to object to evidence
10 offered by the other side. If I sustained an objection
11 to a question, ignore the question and do not guess why
12 I sustained the objection. If the witness did not
13 answer, you must not guess what he or she might have
14 said. If the witness already answered, you must ignore
15 the answer.

16 During the trial, I granted a motion to strike
17 testimony that you heard. You must totally disregard
18 that testimony. You must treat it as though it does not
19 exist.

20 A witness is a person who has knowledge
21 related to the case. You will have to decide whether
22 you believe each witness and how important each
23 witness's testimony is to the case. You may believe
24 all, part, or none of a witness's testimony.

25 In deciding whether to believe a witness's

1 testimony, you may consider, among other factors, the
2 following:

3 How well did the witness see, hear, or
4 otherwise sense what he or she described in court?

5 How well did the witness remember and describe
6 what happened?

7 How did the witness look, act, and speak while
8 testifying?

9 Did the witness have any reason to say
10 something that was not true? For example, did the
11 witness show any bias or prejudice or have a personal
12 relationship with any of the parties involved in the
13 case or have a personal stake in how the case is
14 decided?

15 What was the witness's attitude toward this
16 case or about giving testimony?

17 Sometimes a witness may say something that is
18 not consistent with something else he or she said.
19 Sometimes different witnesses will give different
20 versions of what happened. People often forget things
21 or make mistakes in what they remember. Also, two
22 people may see the same event but remember it
23 differently. You may consider these differences, but do
24 not decide that testimony is untrue just because it
25 differs from other testimony.

1 However, if you decide that a witness did not
2 tell the truth about something important, you may choose
3 not to believe anything that witness said. On the other
4 hand, if you think the witness did not tell the truth
5 about some things but did tell the truth about others,
6 you may accept the part you think is true and ignore the
7 rest.

8 Do not make any decision simply because there
9 were more witnesses on one side than on the other. If
10 you believe it is true, the testimony of a single
11 witness is enough to prove a fact.

12 You must not be biased in favor of or against
13 any witness because of his or her disability, gender,
14 race, religion, ethnicity, sexual orientation, age,
15 national origin, or socioeconomic status.

16 There are two plaintiffs in this trial. You
17 should decide the case of each plaintiff separately as
18 if it were a separate lawsuit. Each plaintiff is
19 entitled to separate consideration of his or her own
20 claims.

21 A corporation, Monsanto, is a party to this
22 lawsuit. Monsanto is entitled to the same fair and
23 impartial treatment that you would give an individual.
24 You must decide this case with the same fairness you
25 would use if you were deciding the case between

1 individuals.

2 When I use words like "person" or "he" or
3 "she" in these instructions to refer to a party, those
4 instructions also apply to Monsanto.

5 You have heard testimony that plaintiffs
6 Alberta and Alva Pilliod were exposed to various
7 glyphosate-containing herbicides that were manufactured
8 by Monsanto. For purposes of these instructions and the
9 verdict form, these glyphosate-containing herbicides
10 will be collectively referred to as "Roundup."

11 Although their claims were presented together
12 in a single trial, Mr. Pilliod and Mrs. Pilliod are
13 separate plaintiffs who assert separate claims against
14 Monsanto. Although some of the evidence you heard is
15 applicable to both Mr. Pilliod and Mrs. Pilliod, other
16 evidence you heard is applicable only to one of them
17 individually.

18 For example, you heard evidence that
19 Mr. Pilliod and Mrs. Pilliod each used different amounts
20 of Roundup and were diagnosed with cancer at different
21 times. When considering Mr. Pilliod's and
22 Mrs. Pilliod's claims, you should separately consider
23 the evidence for each plaintiff regarding what Monsanto
24 knew or reasonably should have known in light of the
25 science that existed at the time of Mr. Pilliod and/or

1 Mrs. Pilliod's use of Roundup that allegedly caused
2 their harm.

3 When considering Mr. Pilliod's claims, you may
4 not consider evidence that is applicable only to
5 Mrs. Pilliod's claims. Similarly, when considering
6 Mrs. Pilliod's claims, you may not consider evidence
7 that is applicable only to Mr. Pilliod's claims.

8 A party must persuade you by the evidence
9 presented in court that what he or she is required to
10 prove is more likely to be true than not true. This is
11 referred to as "the burden of proof."

12 After weighing all of the evidence, if you
13 cannot decide that something is more likely to be true
14 than not true, you must conclude that the party did not
15 prove it. You should consider all of the evidence, no
16 matter which party produced the evidence.

17 In criminal trials, the prosecution must prove
18 that a defendant is guilty beyond a reasonable doubt.
19 But in civil trials such as this one, the party who is
20 required to prove something need prove only that it is
21 more likely to be true than not true.

22 Certain facts must be proved by clear and
23 convincing evidence, which is a higher burden of proof.
24 This means the party must persuade you that it is highly
25 probable that the fact is true. I will tell you

1 specifically which facts must be proved by clear and
2 convincing evidence.

3 Evidence can come in many forms. It can be
4 testimony about what someone saw or heard or smelled.
5 It can be an exhibit admitted into evidence. It can be
6 someone's opinion.

7 Direct evidence can prove a fact by itself.
8 For example, if a witness testifies she saw a jet plane
9 flying across the sky, that testimony is direct evidence
10 that plane flew across the sky.

11 Some evidence proves a fact indirectly. For
12 example, a witness testifies that he saw only the white
13 trail that jet planes often leave. This indirect
14 evidence is sometimes referred to as "circumstantial
15 evidence." In either instance, the witness's testimony
16 is evidence that a jet plane flew across the sky.

17 As far as the law is concerned, it makes no
18 difference whether evidence is direct or indirect. You
19 may choose to believe or disbelieve either kind.
20 Whether it is direct or indirect, you should give every
21 piece of evidence whatever weight you think it deserves.

22 During the trial, I explained that certain
23 evidence could be considered only as to one party. You
24 may not consider that evidence as to any other party.

25 During the trial, you received deposition

1 testimony that was read from the deposition transcript
2 or shown by video. A deposition is the testimony of a
3 person taken before trial. At a deposition, the person
4 is sworn to tell the truth and is questioned by the
5 attorneys. You must consider the deposition testimony
6 that was presented to you in the same way you consider
7 testimony given in court.

8 Before trial, each party has the right to ask
9 another party to admit in writing that certain matters
10 are true. If the other party admits those matters, you
11 must accept them as true. No further evidence is
12 required to prove them.

13 A party may offer into evidence any oral or
14 written statement made by the opposing party outside the
15 courtroom. When you evaluate evidence of such a
16 statement, you must consider these questions:

17 Do you believe that the party actually made
18 the statement? If you do not believe that the party
19 made the statement, you may not consider the statement
20 at all.

21 If you believe that the statement was made, do
22 you believe it was reported accurately?

23 You should view testimony about an oral
24 statement made by a party outside the courtroom with
25 caution.

1 During the trial, you heard testimony from
2 expert witnesses. The law allows an expert to state
3 opinions about matters in his or her field of expertise
4 even if he or she has not witnessed any of the events
5 involved in the trial.

6 You do not have to accept an expert's opinion.
7 As with any other witness, it is up to you to decide
8 whether you believe the expert's testimony and choose to
9 use it as a basis for your decision. You may believe
10 all, part, or none of an expert's testimony. In
11 deciding whether to believe an expert's testimony, you
12 should consider:

- 13 A. The expert's training and experience;
- 14 B. The facts the expert relied on; and
- 15 C. The reasons for the expert's opinion.

16 The law allows expert witnesses to be asked
17 questions that are based on assumed facts. These are
18 sometimes called "hypothetical questions." In
19 determining the weight to give the expert's opinion that
20 is based on assumed facts, you should consider whether
21 the assumed facts are true.

22 If the expert witnesses disagreed with one
23 another, you should weigh each opinion against the
24 others. You should examine the reasons given for each
25 opinion and the facts or other matters that each witness

1 relied on. You may also compare the experts'
2 qualifications.

3 A substantial factor in causing harm is a
4 factor that a reasonable person would consider to have
5 contributed to the harm. It must be more than a remote
6 or trivial factor. It does not have to be the only
7 cause of the harm.

8 Conduct is not a substantial factor in causing
9 harm if the same harm would have occurred without that
10 conduct.

11 Mr. Pilliod and Mrs. Pilliod claim that
12 Roundup's design was defective because Roundup did not
13 perform as safely as an ordinary consumer would have
14 expected it to perform. To establish that claim,
15 Mr. Pilliod and Mrs. Pilliod must prove the following:

16 1. That Monsanto manufactured, distributed,
17 or sold Roundup;

18 2. That the Roundup used by Mr. Pilliod
19 and/or Mrs. Pilliod did not perform as safely as an
20 ordinary consumer would have expected it to perform when
21 used or misused in an intended or reasonably foreseeable
22 way;

23 3. That Mr. Pilliod or Mrs. Pilliod or both
24 were harmed; and

25 4. That Roundup's failure to perform safely

1 was a substantial factor in causing Mr. Pilliod's and/or
2 Mrs. Pilliod's harm.

3 Mr. Pilliod and Mrs. Pilliod claim Roundup
4 lacked sufficient warnings of potential risks. To
5 establish this claim, Mr. Pilliod and Mrs. Pilliod must
6 prove all of the following:

7 1. That Monsanto manufactured, distributed,
8 or sold Roundup;

9 2. That Roundup had potential risks that were
10 known or knowable in light of the scientific knowledge
11 that was generally accepted in the scientific community
12 at the time of the manufacture, distribution, and sale;

13 3. That the potential risks presented a
14 substantial danger when Roundup was used in accordance
15 with widespread and commonly recognized practice;

16 4. That ordinary consumers would not have
17 recognized the potential risks;

18 5. That Monsanto failed to adequately warn of
19 the potential risks;

20 6. That Mr. Pilliod and Mrs. Pilliod or both
21 were harmed; and

22 7. That the lack of sufficient warnings was a
23 substantial factor in causing Mr. Pilliod's or
24 Mrs. Pilliod's or both's harm.

25 Mr. Pilliod and Mrs. Pilliod also claim that

1 they were harmed by Monsanto's negligence and that
2 Monsanto should be held responsible for that harm. To
3 establish that claim, Mr. Pilliod and Mrs. Pilliod must
4 prove all of the following:

5 1. That Monsanto designed, manufactured, and
6 supplied Roundup;

7 2. That Monsanto was negligent in designing,
8 manufacturing, and supplying Roundup;

9 3. That Mr. Pilliod or Mrs. Pilliod or both
10 were harmed; and

11 4. That Monsanto's negligence was a
12 substantial factor in causing Mr. Pilliod or
13 Mrs. Pilliod's or both's harm.

14 Negligence is the failure to use reasonable
15 care to prevent harm to others. A designer,
16 manufacturer, or supplier can be negligent by acting or
17 failing to act. A designer, manufacturer, or supplier
18 is negligent if it fails to use the amount of care in
19 designing or manufacturing the product that a reasonably
20 careful designer or manufacturer would use in similar
21 circumstances to avoid exposing others to a foreseeable
22 risk of harm.

23 In determining whether Monsanto used
24 reasonable care, you should balance what Monsanto knew
25 or should have known about the likelihood and severity

1 of potential harm from the product against the burden of
2 taking safety measures to reduce or avoid the harm.

3 Mr. Pilliod and Mrs. Pilliod claim that
4 Monsanto was negligent by not using reasonable care to
5 warn about the dangerous condition of Roundup or about
6 facts that made Roundup likely to be dangerous. To
7 establish this claim, Mr. Pilliod and Mrs. Pilliod must
8 prove all of the following:

9 1. That Monsanto manufactured, distributed,
10 or sold Roundup;

11 2. That Monsanto knew or reasonably should
12 have known that Roundup was dangerous or was likely to
13 be dangerous when used in accordance with widespread and
14 commonly recognized practice;

15 3. That Monsanto knew or reasonably should
16 have known that users would not realize the danger when
17 used in accordance with widespread and commonly
18 recognized practice;

19 4. That Monsanto failed to adequately warn of
20 the danger of Roundup;

21 5. That a reasonable manufacturer,
22 distributor, or seller under the same or similar
23 circumstances would have warned of the danger of
24 Roundup;

25 6. That Mr. Pilliod or Mrs. Pilliod or both

1 were harmed; and

2 7. That Monsanto's failure to warn was a
3 substantial factor in causing Mrs. Pilliod's or
4 Mr. Pilliod's or both's harm.

5 If you decide that Mr. Pilliod and/or
6 Mrs. Pilliod have proved their claims against Monsanto,
7 you must also decide how much money will reasonably
8 compensate Mr. Pilliod and/or Mrs. Pilliod for their
9 individual harm. This compensation is called damages.

10 The amount of damages must include an award
11 for each item of harm that was caused by Monsanto's
12 wrongful conduct, even if the particular harm could not
13 have been anticipated.

14 Mr. Pilliod and/or Mrs. Pilliod do not have to
15 prove the exact amount of damages that will provide
16 reasonable compensation for the harm. However, you must
17 not speculate or guess in awarding damages.

18 The damages claimed by Mr. Pilliod and
19 Mrs. Pilliod for the harm caused by Monsanto fall into
20 two categories called economic damages and noneconomic
21 damages. You will be asked on the verdict form to state
22 the two categories of damages separately.

23 The following are the specific items of
24 economic damages claimed by Mr. Pilliod:

25 1. Past medical expenses.

1 To recover damages for past medical expenses,
2 Mr. Pilliod must prove the reasonable cost of reasonably
3 necessary medical care that he has received.

4 The following are the specific items of
5 economic damages claimed by Mrs. Pilliod:

6 1. Past and future medical expenses.

7 To recover damages for past medical expenses,
8 Mrs. Pilliod must prove the reasonable cost of
9 reasonably necessary medical care that she has received.

10 To recover damages for future medical
11 expenses, Mrs. Pilliod must prove the reasonable cost of
12 reasonably necessary medical care that she is reasonably
13 certain to need in the future.

14 The following are the specific items of
15 noneconomic damages claimed by Mrs. Pilliod and
16 Mr. Pilliod:

17 1. Past and future physical pain, mental
18 suffering, loss of enjoyment of life, disfigurement,
19 physical impairment, inconvenience, grief, anxiety,
20 humiliation, emotional distress, and any other similar
21 damages.

22 No fixed standard exists for deciding the
23 amount of these noneconomic damages. You must use your
24 judgment to decide a reasonable amount based on the
25 evidence and your common sense.

1 To recover for future pain, mental suffering,
2 loss of enjoyment of life, disfigurement, physical
3 impairment, inconvenience, grief, anxiety, humiliation,
4 and emotional distress, plaintiffs must prove that they
5 are reasonably certain to suffer that harm.

6 For future noneconomic damages, determine the
7 amount in current dollars paid at the time of judgment
8 that will compensate plaintiffs for future noneconomic
9 damages.

10 The arguments of the attorneys are not
11 evidence of damages. Your award must be based on your
12 reasoned judgment applied to the testimony of the
13 witnesses and the other evidence that has been admitted
14 during trial.

15 If you decide Mr. Pilliod and/or Mrs. Pilliod
16 have suffered damages that will continue for the rest of
17 their life, you must determine how long they will
18 probably live. According to the National Vital
19 Statistics Report published by the National Center for
20 Health Statistics:

21 1. A 77-year-old male is expected to live
22 another 10 years; and.

23 2. A 75-year-old female is expected to live
24 another 13 years.

25 This is the average life expectancy. Some

1 people live longer and others die sooner. This
2 published information is evidence of how long a person
3 is likely to live but is not conclusive. In deciding a
4 person's life expectancy, you should consider, among
5 other factors, that person's health, habits, activities,
6 lifestyle, and occupation.

7 Mr. Pilliod and Mrs. Pilliod seek damages from
8 Monsanto under more than one legal theory. However,
9 each item of damages may be awarded only once to each
10 plaintiff, regardless of the number of legal theories
11 alleged.

12 If you decide Monsanto's conduct caused
13 Mr. Pilliod and/or Mrs. Pilliod harm, you must decide
14 whether that conduct justifies the award of punitive
15 damages. The purpose of punitive damages are to punish
16 a wrongdoer for the conduct that harmed the plaintiff
17 and to discourage similar conduct in the future.

18 Punitive damages are not intended to
19 compensate Mr. Pilliod or Mrs. Pilliod. If you awarded
20 compensatory damages to Mr. Pilliod and/or Mrs. Pilliod,
21 your award will have fully compensated them for any loss
22 of harm or damage that he or she has incurred or may in
23 the future incur as a result of Monsanto's conduct.

24 You may award punitive damages against
25 Monsanto only if Mr. Pilliod and/or Mrs. Pilliod prove

1 that Monsanto engaged in that conduct with malice,
2 oppression, or fraud. To do this, Mr. Pilliod and/or
3 Mrs. Pilliod must prove one of the following by clear
4 and convincing evidence:

5 1. That the conduct constituting malice,
6 oppression, or fraud was committed by one or more
7 officers, directors, or managing agents of Monsanto, who
8 acted on behalf of Monsanto; or

9 2. That the conduct constituting malice,
10 oppression, or fraud was authorized by one or more
11 officers, directors, or managing agents of Monsanto; or

12 3. That one or more officers, directors, or
13 managing agents of Monsanto knew of the conduct
14 constituting malice, oppression, or fraud and adopted or
15 approved the conduct after it occurred.

16 "Malice" means that Monsanto acted with an
17 intent to cause injury or that Monsanto's conduct was
18 despicable and was done with a willful and knowing
19 disregard of the rights or safety of another. A person
20 acts with knowing disregard when he or she is aware of
21 the probable dangerous consequences of his or her
22 conduct and deliberately fails to avoid those
23 consequences.

24 "Oppression" means that Monsanto's conduct was
25 despicable and subjected Mr. Pilliod and/or Mrs. Pilliod

1 to cruel and unjust hardship in knowing disregard of his
2 or her rights.

3 "Despicable conduct" is conduct so vile, base,
4 or contemptible that it would be looked down on and
5 despised by reasonable people.

6 "Fraud" means that Monsanto intentionally
7 misrepresented or concealed a material fact and did so
8 intending to harm Mr. Pilliod and/or Mrs. Pilliod.

9 An employee is a managing agent if he or she
10 exercises substantial independent authority and judgment
11 in his or her corporate decision-making such that his or
12 her decisions ultimately determine corporate policy.

13 There is no fixed formula for determining the
14 amount of punitive damages, and you are not required to
15 award any punitive damages. If you decide to award
16 punitive damages, you should consider all of the
17 following factors in determining the amount:

18 (a) How reprehensible was Monsanto's conduct?
19 In deciding how reprehensible Monsanto's conduct was,
20 you may consider, among other factors:

- 21 1. Whether the conduct caused physical harm;
- 22 2. Whether Monsanto disregarded the health or
23 safety of others;
- 24 3. Whether plaintiffs were financially weak
25 or vulnerable and Monsanto knew Mr. Pilliod and/or

1 Mrs. Pilliod were financially weak or vulnerable and
2 took advantage of him or her;

3 4. Whether Monsanto's conduct involved a
4 pattern or practice; and

5 5. Whether Monsanto acted with trickery or
6 deceit.

7 (b) Is there a reasonable relationship
8 between the amount of punitive damages and Mr. Pilliod
9 and/or Mrs. Pilliod's harm or between the amount of
10 punitive damages and potential harm to Mr. Pilliod
11 and/or Mrs. Pilliod that Monsanto knew was likely to
12 occur because of its conduct?

13 (c) In view of Monsanto's financial
14 condition, what amount is necessary to punish and
15 discourage future wrongful conduct? You may not
16 increase the punitive award above an amount that is
17 otherwise appropriate merely because Monsanto has
18 substantial financial resources. Any award you impose
19 may not exceed Monsanto's ability to pay.

20 Punitive damages may not be used to punish
21 Monsanto for the impact of its alleged misconduct on
22 persons other than Mr. Pilliod and/or Mrs. Pilliod.

23 And, finally, you must not consider or include
24 any part of any award attorneys' fees or expenses that
25 the parties incurred in bringing or defending this

1 lawsuit.

2 So these are the instructions that I'm going
3 to read before closing argument. I have a few after
4 closing argument before you begin deliberations, but now
5 Mr. Wisner is going to present closing on behalf of the
6 plaintiffs.

7 **MR. WISNER:** Your Honor, with the Court's
8 indulgence, may I have one minute to quickly run to the
9 restroom?

10 **THE COURT:** Sure.

11 (Recess taken from 9:49 a.m. to 9:51 a.m.)

12 **MR. WISNER:** Thank you so much, Your Honor.

13 **THE COURT:** You may proceed.

14 **CLOSING ARGUMENT**

15 **MR. WISNER:** May it please the Court, counsel.

16 Hi. It's been a long trial. And I don't
17 think I've ever in my life spent so much time in such
18 close proximity to people and actually not spoken to any
19 of you. It's kind of weird.

20 We've heard a lot of evidence in this case.
21 We've heard a lot of testimony about studies. We've
22 heard testimony from experts. We've heard testimony
23 from Monsanto's witnesses. And I think it's very easy,
24 when you sit here for over a month, to kind of lose
25 sight of why we're here.

1 The simple fact is Mr. Pilliod and
2 Mrs. Pilliod, they got cancer. Last night I couldn't
3 sleep. I kept thinking about when Mr. Pilliod was on
4 the stand and he was telling us about that story when he
5 got the call and called the nurse at the hospital and he
6 was told that Mrs. Pilliod didn't resuscitate and that
7 she was downstairs.

8 Do you remember that? And he was devastated.
9 He thought his wife was dead.

10 And he rushed to the hospital. And he talked
11 about how, when he got there, he looked through the
12 glass, and Mrs. Pilliod didn't have any hair. And she
13 didn't know what was going on. She didn't know who she
14 was; she didn't know who he was. Because the tumor in
15 her brain had at that point caused so much brain damage
16 and so much inflammation that she was kind of lost.

17 And the reason why I start there is because
18 that's actually why we're here. At the beginning of
19 this case, I said this case was about choice. I told
20 you that every single person in this courtroom has the
21 right to make a choice about what chemicals they expose
22 themselves or their families to.

23 And no chemical company can take that choice
24 away from us. They can't not tell us information. And
25 if they suspect or know that their product can cause

1 cancer, then they have to warn, they have to give us a
2 choice, they have to give the Pilliods a choice about
3 whether or not to use the product.

4 But if they don't, if they don't warn and,
5 because of that, somebody gets cancer or, God forbid, a
6 husband and wife get devastated by cancer, then they
7 have to pay. That's how the law works.

8 And that's particularly true because that
9 moment, when Mr. Pilliod was sitting there wondering if
10 his wife was dead, that didn't have to happen. The
11 cancer that they both got didn't have to happen if
12 Monsanto had simply given them a choice.

13 Because they both told us, unequivocally, if
14 they thought that this stuff was dangerous in any way
15 and could cause cancer, they just never would have
16 touched it.

17 That makes sense. People make choices all the
18 time. Some people smoke, right? But when they smoke,
19 they make that decision knowingly. They know, hey,
20 cigarettes can cause cancer, but I'm going to take on
21 that risk anyway. They weren't given that choice. And
22 the reason why is because of the decisions and choices
23 that Monsanto has made for the last 40 years.

24 Now, I have a lot to go through with you
25 today. And I'm going to start off with the stuff that

1 we really didn't get a chance to discuss in major detail
2 during trial; specifically, Monsanto's conduct.

3 We've heard a lot of testimony about studies,
4 a lot of experts giving us their opinions about Roundup
5 causing cancer or ulcerative colitis or whatever. But
6 we actually haven't spent much time talking about how we
7 got here.

8 This is our road map today. The first
9 question we're going to try to answer -- and it's
10 actually going to take a while because there's a lot of
11 evidence in the record -- how did we get here? Then
12 we're going to get to the science.

13 First question is can Roundup be a substantial
14 contributing factor in causing NHL?

15 Now, notice I said substantial contributing
16 factor in causing because, as the judge has explained to
17 you, that notion of causation in a legal proceeding is
18 very different than causation in a traditional sense.
19 I'm going to walk you through that when we get there.

20 Was Roundup a substantial contributor to
21 Alberta's and/or Alva's NHL?

22 Again, the question here is not was it the
23 cause of their cancer, but was it a substantial
24 contributor. That was the legal requirement. I'm going
25 to walk you through that both and the scientific.

1 Then we're going to have to talk about their
2 damages, and we have to talk about their damages
3 separately. Both of them are entitled to noneconomic or
4 economic damages, both past and future. And I'll walk
5 you through how we go about calculating that. And some
6 of the numbers have actually been stipulated to by the
7 parties.

8 Then you're going to have to ask yourself
9 what's the appropriate punishment? And that's punitive
10 damages. I'm going to walk you through some of the
11 information about Monsanto and talk to you about
12 speaking the language that a company like Monsanto
13 speaks. That's the language of money.

14 And, finally, I'm going to walk you through
15 what you need to actually do. What's the process of a
16 jury when you go into the deliberation room and what you
17 need to check off and not check off on the verdict
18 forms.

19 So let's start with the first question: How
20 did we get here?

21 Roundup has been on the market for 45 years.
22 It's being sold at hardware stores everywhere. And
23 you've seen mountains of evidence that has been
24 accumulating during this time showing that it causes
25 tumors in animals, that it's genotoxic, that it resides

1 in the human bone. And yet today they've never warned
2 anybody about any of that. How does that happen?

3 Every single thing that causes cancer, a
4 product that causes cancer, has had this moment, right,
5 where the science was buried, where the company who was
6 making the money hid it, and it finally gets caught up
7 where the truth gets brought to the forefront, when
8 jurors get to see all those internal documents, get to
9 see the science that was buried, and set it straight.

10 This is that moment. This is that moment
11 where you actually get to make them change their
12 conduct. It's pretty damn cool. This is, frankly,
13 their day of reckoning.

14 So let's walk through the last 40 years of
15 misconduct. Here are just some of the issues of the
16 evidence that you've seen in this case. I'm going to
17 walk you through each one, because this all came into
18 evidence. And I'm going to show you the documents that
19 support each one of these points. I'm not making this
20 up.

21 The first one is the IBT scientific fraud.
22 Now, just think about this for a second. Roundup, its
23 birth, its origin in our country, was fraud. That's
24 undisputed. The very studies that formed its original
25 registration in 1974 were scientific fraud. I mean,

1 just think about that for a second. This is not a
2 product that has a glorious track record; it is a
3 product that was literally born in fraud.

4 And here's what happened. In 1971 a Monsanto
5 toxicologist, Paul Wright, he leaves Monsanto and begins
6 working at Industrial Bio-Test Laboratories.

7 Shortly after his arrival, they begin the
8 first long-term study on rodents with glyphosate.
9 Dr. Wright then leaves IBT and goes back to Monsanto in
10 October of 1972.

11 Shortly thereafter, Monsanto submits the
12 result of that study to the EPA that was done by IBT.
13 It was the only study to support the safe use of Roundup
14 as it relates to carcinogenicity.

15 1974, the EPA approves Roundup.

16 Now, that's how the story was supposed to go.
17 But in 1976, everything changed. The EPA and the FDA
18 discovered that IBT, and specifically Dr. Wright, were
19 engaged in widespread scientific fraud and that the very
20 study that supported Roundup or glyphosate's use was
21 invalid.

22 Between 1976 and 1982, Monsanto knew their
23 study was garbage. They knew it was based on fraud.
24 And they didn't do a single thing about it. We saw the
25 evidence. They didn't tell a single consumer, "Hey, if

1 you want to use Roundup, that's fine. But just FYI, it
2 might cause cancer. We don't know. The study that we
3 used to prove it didn't cause cancer turned out to be
4 fraudulent." They didn't tell anybody. Instead, they
5 continued to make lots of money selling it.

6 So between 1976 and 1982, Monsanto knows the
7 data is fraudulent, and they just don't care. They want
8 to make money.

9 And 1982 is an important year because you know
10 what? That is when Mr. and Mrs. Pilliod started using
11 Roundup. They weren't given a choice. They weren't
12 told, "Hey, that stuff you want to use? Turns out that
13 the data supporting its safe use is fraudulent." They
14 were never told. And they said, if they had known that,
15 they wouldn't have touched it. Who would? That's the
16 start of the story.

17 Then the very next story is almost worse,
18 because we have mountains of evidence that Monsanto
19 simply fabricates scientific evidence, stuff that we
20 know is just not true. And the most important one was
21 the very next study that they did.

22 So after that first mouse study was determined
23 to be fraudulent, Monsanto then had to redo another one.
24 And that was the Knezevich and Hogan study. That study
25 showed that mice that were actually exposed to

1 glyphosate had lymphoma, and it showed kidney carcinomas
2 and adenomas. Those are tumors in the kidneys.

3 And this actually led, in 1985, to the EPA
4 coming to a consensus that, because of this study,
5 Roundup was, in fact, a Class C carcinogen.

6 So back in 1985, the EPA goes, You know what?
7 This is possibly a carcinogen. We're seeing tumors in
8 mice exposed to it. Obviously, this is a problem.

9 We've heard testimony from Dr. Benbrook that
10 if, in fact, glyphosate was deemed a possible carcinogen
11 in 1975, it would have destroyed their ability to sell
12 it. Remember, he talked about the food tolerances and
13 how that affects the ability of a company to sell it.
14 Well, if it was a possible carcinogen, there wouldn't be
15 any food tolerances that would be permissible.
16 Glyphosate's story would have ended there.

17 So Monsanto does what Monsanto does. It
18 started trying to figure out a way out of it. They met
19 with the EPA February 22nd, 1985. This is in evidence.
20 This is a document that is a Monsanto memorandum. It's
21 specifically talking about this consensus statement.

22 And in this meeting -- they're specifically
23 meeting with the EPA. They're having a meeting about
24 this classification.

25 And in this meeting, the Monsanto employee --

1 they actually put this down in writing. They said,
2 "Short of a new study, we're finding tumors in the
3 control groups. What can we do to get this thing off
4 Group C?"

5 Well, what does this mean? We talked about
6 this in the opening and we talked about it during trial,
7 but it's been a while, so maybe you forgot.

8 So what we saw here in the kidney tumors was
9 one kidney in the mid dose, three in the high dose, and
10 none in any other.

11 That trend was highly significant and was a
12 dose-response relationship. However, if they could find
13 a tumor in the control group, it would entirely change
14 the statistics. It would make it no longer significant
15 or marginally significant. And if it's marginally
16 significant, then the EPA says, okay, fine, you're good
17 to go.

18 So he's speculating, just out of nowhere,
19 short of finding a tumor in the control group, how do we
20 get this thing off Group C?

21 So they have this conversation. And then an
22 EPA reviewer writes a memo. This is an important memo.
23 It's also in evidence.

24 And, by the way, I should just point out, all
25 of these documents here have these exhibits numbers

1 right here, 073 or 1375. Those are actually going to be
2 in your exhibit binders. So if you actually want to go
3 back and read any of these carefully during
4 deliberations, you can. So if you want to take a look
5 at something closer, just write down the exhibit numbers
6 as we're going through, and you'll be able to see it in
7 your binders during your deliberations. I'm only
8 showing you here evidence.

9 So there's an EPA reviewer. Couple days
10 later, shortly after meeting with Monsanto, he writes
11 this memo. His name is Dr. Lacayo. He's a
12 statistician. And he's concerned about what Monsanto is
13 saying about the data.

14 So he gives the background. "Glyphosate
15 feeding study on Charles River CD-1 mice generated renal
16 tubular adenomas in male mice at the 5000 and 30000 ppm
17 dose levels." Those are the mid and high dose levels
18 that we were talking about.

19 "The registrant (Monsanto) claims that the
20 tumors are 'unrelated to treatment.'"

21 And if you go through this memo, he kind of
22 just completely and systematically debunks all of
23 Monsanto's arguments about control groups and
24 statistical analysis.

25 But at the very end of it, he discusses a

1 false positive. He says, "The registrant" -- which is
2 Monsanto -- "wishes to avoid false positives while those
3 concerned with the public health wish to avoid false
4 negatives. Hence, for this reason alone, Monsanto's
5 argument is unacceptable."

6 And then he goes on to explain.

7 "Viewpoint is a key issue. Our viewpoint" --
8 this is the EPA -- "is one of protecting the public
9 health when we see suspicious data. It is not our job
10 to protect registrants from false positives. We
11 sympathize with the registrant's problem, but they will
12 have to demonstrate that this positive result is false."

13 So they tell Monsanto, "Hey, you have to prove
14 that this result is false. You have to find a tumor in
15 the control group."

16 He goes on to say, "Finally, we mention that
17 none of the tumors occurred in the control or low-dose
18 groups. Instead there was one at 5000 and three at
19 30000. This, together with the previous comments, makes
20 it likely that there is a dose-tumor relationship for
21 glyphosate."

22 So what happens? Well, they hire a guy by the
23 name of Dr. Marvin Kuschner. This is also in evidence,
24 Exhibit 72. This is a memorandum. It's dated
25 April 3rd, 1985. This is an internal Monsanto memo.

1 And they say right here, "Senior management at EPA is
2 reviewing a proposal to classify glyphosate as a Class C
3 possible human carcinogen because of kidney adenomas in
4 male mice. Dr. Marvin Kushner will review kidney
5 sections and present his evaluation of them to EPA in an
6 effort to persuade the agency that the observed tumors
7 are not related to glyphosate."

8 So they already know that Dr. Kushner is
9 going to help them persuade the agency that the data is
10 false. Prove it. The problem is -- this is Exhibit
11 73 -- Dr. Kushner didn't get the slides until a week
12 and a half later.

13 How could they know that he would help them
14 disabuse the EPA unless his opinion was already bought
15 and paid for? This is the definition of manipulating
16 science.

17 When Monsanto doesn't like the results of its
18 study, they just hire some dude to make some stuff up.
19 He found a tumor that no one else could see in the
20 control group. He made it no longer statistically
21 significant. That Class C carcinogen rating, the thing
22 that would have changed the entire history of
23 glyphosate, sidelined because they bought and paid for
24 an opinion by Dr. Kushner.

25 It's pretty remarkable, ladies and gentlemen.

1 There is absolutely no response to this. We've
2 presented this evidence; we presented these documents.
3 Monsanto didn't bring a single person here to testify
4 live to say, "Oh, no, no, no. There really was a
5 tumor." "Oh, no, no, no. That's not what we did with
6 Dr. Kuschner." They just didn't. This is undisputed
7 evidence of the manipulation and fabrication of science.

8 Then in June of 1986, after a bunch of
9 back-and-forth with the EPA on this very issue of this
10 tumor that no one else had seen, they go, "Okay. Fine.
11 In order to fully address this question, the agency is
12 requiring that this study be repeated with a larger
13 number of animals in each test group so that the
14 statistical power of the study is increased."

15 They say, "Okay. Fine. You say there's a
16 tumor. We don't think there's a tumor. Let's just do
17 it again and figure it out." Right? That seems like a
18 commonsense approach.

19 But you know what? To this day, Monsanto has
20 never done another mouse study, not one. Not a single
21 mouse study has been done by Monsanto since.

22 And you know what? Every single one that has
23 been done by other people, every single one shows
24 malignancy lymphoma in the mice.

25 That's a convenient coincidence, or is that a

1 company that is scared of what they're going to find
2 when they actually study their product?

3 I mean, they did two studies. One was
4 fabricated, IBT. And the other one, they had to make up
5 data to get away from the bad results. And then they
6 just stopped doing them.

7 I mean, they don't want the Class C, Class A,
8 Class B, or whatever carcinogenicity rating.

9 In addition to the whole tumor that was
10 found -- Dr. Kuschner's tumor, you've also seen a lot of
11 evidence of ghostwriting. And this isn't me using the
12 word "ghostwriting." Okay? This is Monsanto themselves
13 saying ghostwriting.

14 Let me show you. So here's this study:
15 Williams, Kroes, Munro, 2000. Okay? And it's written
16 by these two people. And it's a safety evaluation and
17 risk assessment of the herbicide Roundup. This was the
18 seminal literature piece in 2000 dealing with the
19 genotoxicity of glyphosate and Roundup. Genotoxicity,
20 that's cellular DNA damage. This was the paper. Okay?

21 Well, what do we know about it? What do we
22 know about it? I asked Monsanto, "Please define
23 ghostwriting."

24 I think I have to wait five seconds.

25 (Video excerpts played in open court; not

1 reported herein.)

2 **MR. WISNER:** So Monsanto defines unethical
3 ghostwriting. Their head of product safety says that,
4 when somebody writes it and another person signs their
5 name, so to speak, that's the unethical type. Okay?

6 Well, let's look and see what happened. This
7 is an exhibit, Exhibit 9 in evidence. And this is an
8 email exchange. Dr. Koch is on it, same with
9 Dr. Heydens as well as Dr. Farmer, all of the people who
10 are responsible for glyphosate and the safety of Roundup
11 at Monsanto.

12 And this is an email. It's dated
13 February 2015. This is in anticipation of the IARC
14 meeting that's going to be happening in March of 2015.
15 And they're discussing various ideas.

16 This last paragraph is pretty interesting.
17 They're talking about a project (as read):

18 "If we went full bore, involving experts from
19 all the major areas, we could be pushing \$200,000, maybe
20 even more. A less expensive/more palatable approach
21 might be to involve experts only for the areas of
22 contention, epidemiology and possibly method of action
23 (depending on what comes out of the IARC meeting) and we
24 ghostwrite the exposure tox and genotox sections."

25 "Ghostwrite," that's actually their word.

1 Then he goes on to say:

2 "An option would be to add Greim and Kier or
3 Kirkland and to have their names on the publication, but
4 we would be keeping the cost down by us doing the
5 writing, and they would just edit and sign their names,
6 so to speak."

7 That is literally the definition of
8 ghostwriting that Dr. Koch admitted to under oath. It's
9 verbatim.

10 And then look at what he says. "Recall, that
11 is how we handled Williams, Kroes" -- if you look at the
12 last page. I actually showed this to Dr. Koch in his
13 deposition. After I established what unethical
14 ghostwriting was, I showed it to him. And here's what
15 happened.

16 (Video excerpts played in open court; not
17 reported herein.)

18 **MR. WISNER:** Yep. That's what they did. And
19 their own head of product safety center is saying it's
20 unethical.

21 Now, Monsanto is going to come up here in a
22 second and say, "Oh, hold on. Hold on. Hold on. We
23 didn't actually ghostwrite that. There's a discussion
24 at the very end of it that acknowledges that there was
25 some advice given by Monsanto."

1 But when he does that, ask Mr. Ismail to show
2 you the emails that we showed you, where Bill Heydens is
3 saying, "I grew gray hairs writing this."

4 Do you remember that deposition? It's a while
5 back. I know it's hard -- maybe I'll show it to you in
6 rebuttal.

7 He says, "I wrote it." He made dozens and
8 dozens of edits to it, and he was never made an author
9 on it. Because they knew that if a Monsanto employee
10 was an author on this manuscript, it wouldn't get the
11 credibility it needed and it wouldn't do the job they
12 needed it to do.

13 And I'm not making this up. This Williams
14 article was pervasive in manipulating the literature.
15 We see it front and center in one of the most important
16 studies in this case. In De Roos 2003, this is that
17 study where they adjusted for 47 other pesticides. And
18 even after fully testing and all that stuff, there was
19 still a 210 percent increased risk. Okay?

20 It was statistically significant. It's a very
21 clear signal that it ain't adjustments; there's no
22 problems with other pesticides; there's a real problem
23 with non-Hodgkin's lymphoma.

24 But if you actually read the article, when
25 they talk about glyphosate, they talk about all these

1 other studies showing an association.

2 But then it says at the very end:

3 "These few suggestive findings provide some
4 impetus for further investigation into the potential
5 effects of glyphosate, even though one review concluded
6 that the active ingredient is noncarcinogenic and
7 nongenotoxic."

8 So there's all this positive evidence, but
9 there is this one other piece of evidence out there we
10 should consider.

11 Well, guess what Footnote 50 is? Williams,
12 Kroes, and Munro. It's the very article that
13 Dr. Heydens says he ghostwrote. It's the very article
14 they claim and they acknowledge was unethical.

15 That's what's so insidious about ghostwriting.
16 When you create false science, it infects the scientific
17 literature. And when independent researchers like
18 Dr. De Roos or other researchers who are trying to
19 investigate this issue, they see these documents, they
20 think, oh, they're credible, when they're just
21 fabricated.

22 Remarkably, Dr. Koch, who admitted that what
23 Bill Heydens was suggesting was unethical, he was part
24 of the game. This is in evidence. It's Exhibit 74.

25 And this is another email. This was shortly

1 after the IARC monograph. And they're talking about
2 post-IARC activities to support glyphosate.

3 Michael Koch has sent an email to Bill Heydens
4 and Dr. Farmer. And he says, "I agree with everything
5 you've written and have a couple suggested additions.
6 See green text below."

7 And if you go down and look at what he has
8 suggested, he has two additions. One is up here, I
9 think was plan of action -- I don't -- and the other was
10 "manuscript to be initiated by Monsanto as
11 ghostwriters."

12 This activity of ghostwriting was so
13 commonplace within Monsanto that they just referred to
14 it as part of a bullet point plan of action. This isn't
15 a secret meeting about what they're going to do; he's
16 straight up saying it, we're going to do it.

17 And, actually, you heard evidence about this.
18 They went on to later publish this Intertek panel. You
19 heard a bunch of testimony from some of the Monsanto
20 witnesses about that.

21 And, actually, because of the litigation, the
22 journal had to issue something called an "expression of
23 concern," where they said "Monsanto didn't disclose its
24 relationship in these studies. We don't think it's been
25 fully transparent. They haven't explained to us why."

1 This is all in Dr. Koch's depo.

2 And when I asked Dr. Koch, I showed him the
3 expression, I showed him, hey, look, each one of these
4 authors who participated in this ghostwriting, they
5 apologized. They said "I'm sorry for our errors and our
6 participation in this project."

7 And I asked him, "What about Monsanto? You're
8 the head of the product safety center. Will you
9 apologize for Monsanto's role in that?"

10 "Absolutely not."

11 And that's pretty terrible. You're caught
12 with your hand in the cookie jar. A responsible company
13 goes, "You know what? We're sorry. We created these
14 studies, ignored them. My bad. It's been retracted.
15 Let's take responsibility for what we're dealing with
16 now."

17 Instead, they double down. And, to this day,
18 we've heard no evidence that they have apologized.

19 We see in other documents, literally, the
20 itemization of ghostwriting. So here's the battle plan
21 from May of 2015. And they're talking about responding
22 to IARC. They're talking about why do we need to do
23 more? And they say there's a severe stigma associated
24 with an IARC classification. They need to provide air
25 cover for regulators, which is a bit weird, but that's

1 what they're saying.

2 They're saying Prop 65, we're worried about
3 that. That's the fact that the State of California has
4 determined that Roundup is a substance known to cause
5 cancer. And litigation support. That's right. For
6 this right here. They've got to make up science to
7 support this lawsuit, these cases.

8 They talk about all these different ideas.
9 They wanted to get an updated analysis on the AHS study.
10 We all know that happened. That's the Andreotti paper.

11 They want to do a weight of evidence
12 plausibility paper. That also happened. Those are the
13 Intertek manuscripts.

14 The genotox method of action paper, that also
15 got published.

16 And when they discuss some of these projects,
17 they specifically address their issues. For example, on
18 the carcinogenicity in animals, it says "Other Costs:
19 The majority of writing can be done by Monsanto, keeping
20 outside spend costs down."

21 They're going to ghostwrite. That's what
22 they're saying. And they don't even know who the
23 authors are going to be yet. And I think it's really
24 interesting, by the way, that one of the reasons for
25 this publication was to respond to the initiation and

1 promotion study of Roundup. We'll get to that when we
2 get to the general causation stuff.

3 And another project, they talk about the
4 weight of evidence. They published a comprehensive
5 evaluation of carcinogenic potential by credible
6 scientists. It even names possible people who will put
7 their names on it. And then it says right here, how
8 much writing can be done by Monsanto scientists to help
9 keep costs down? It's everywhere.

10 What makes the ghostwriting, though,
11 particularly insidious, for example, the Williams paper,
12 that was actually published in 2000, right? That was
13 published right around the same time that Monsanto had
14 actually contracted with a guy named Dr. James Parry.

15 You might have heard the story. It was one of
16 the depositions. This is the problem with these cases.
17 We presented all our evidence. We did them back to
18 back. We got all our witnesses in. And then they
19 presented four witnesses over, like, two weeks. So it's
20 hard to remember everything that happened.

21 But there was a deposition that talked about
22 Dr. James Parry. And he specifically was hired by
23 Monsanto to look at is Roundup and is glyphosate
24 genotoxic? He was an independent expert,
25 world-renowned. And he issued a paper.

1 This is his first report. It's dated
2 February 1999. So this is just before the publication
3 of the Williams paper, the ghostwritten one.

4 And he says right here, "Overall data provided
5 by the four publications provide evidence to support a
6 model that glyphosate is capable of producing
7 genotoxicity, both in vivo" -- that's in living
8 creatures -- "and in vitro, by a mechanism based on the
9 production of oxidative damage."

10 So Monsanto convenes. This is minutes made by
11 Dr. Farmer shortly after the report. It's Exhibit 432.

12 And she says, "Review of Dr. Parry's analysis.
13 What is our next step? Dr. Parry concluded in his
14 evaluation of the four articles that glyphosate is
15 capable of producing genotoxicity, both in vivo and in
16 vitro, by a mechanism based upon the production of
17 oxidative damage. The data Dr. Parry evaluated is
18 limited and is not consistent with other, better
19 conducted, studies.

20 "In order to move Dr. Parry from his position,
21 we will need to provide him with the additional
22 information, as well as asking him to critically
23 evaluate the quality of all the data, including the open
24 literature studies.

25 "As a follow-up, Mark will contact Dr. Parry,

1 discuss with him the existence of additional data, and
2 ask him to evaluate the full package. Mark will also
3 explore his interests. And if we can turn his opinion
4 around" -- if we can turn his opinion around -- "see if
5 he's interested in being a spokesperson for us for these
6 types of issues."

7 So they go again. The four studies, let's
8 give them everything, right? Let's show them all the
9 regulatory studies, the salmonella studies, the bacteria
10 studies. That will show them. That will convince them
11 that it's not genotoxic.

12 Well, it didn't. He actually issued another
13 report. It's Exhibit 38. It's like a 50-page document,
14 so I'm not going to go through it in any detail right
15 now. I don't want to spend all day on it.

16 But the bottom line is, after looking at all
17 the data, he again concludes, hey, guys, Roundup and
18 glyphosate are genotoxic. And he actually specifically
19 lists a bunch of actions that Monsanto needs to do,
20 studies that they need to conduct to look at is it
21 causing genotoxicity in exposed populations in the real
22 world.

23 Well, Dr. Heydens writes an email. This is
24 September 16, 1999. It's after the second report. I'm
25 just going to read the whole thing.

1 "However, let's step back and look at what
2 we're really trying to achieve here. We want to
3 find/develop someone who is comfortable with the genotox
4 profile of glyphosate/Roundup and who can be influential
5 with regulators and scientific outreach operations when
6 genotox issues arise.

7 "My read is that Parry is not currently such a
8 person, and it would take quite some time and
9 money/studies to get him there. We simply aren't going
10 to do the studies Parry suggests. Mark, do you think
11 Parry can become a strong advocate without doing this
12 work?

13 "If not, we should seriously start looking for
14 one or more other individuals to work with. Even if we
15 think we can eventually bring Parry around closer to
16 where we need him, we should be currently looking for a
17 second back-up genotox supporter. We have not made much
18 progress and are currently very vulnerable in this area.
19 We have time to fix that but only if we make this a high
20 priority now."

21 So Dr. Heydens, one of the masterminds behind
22 all this, goes, "Hey, guys, Parry is not toting the
23 party line there. He wants us to do all these studies.
24 That's not happening. We've got to find someone else."

25 Well, they did, because that's -- three months

1 later, the Williams article comes out, saying the exact
2 opposite of what Dr. Parry said.

3 He's saying it's genotoxic. The article that
4 gets published to the world says it's not, no problems,
5 safe as pie.

6 Well, here's the rub: Monsanto admits they
7 never shared Dr. Parry's report with anybody, no one at
8 the EPA. They didn't publish it. So they have a
9 person, a credible scientist, who's independently looked
10 at all the data and said, hey, your stuff is genotoxic.
11 And they bury it. And, instead, they ghostwrite an
12 article saying the opposite.

13 That, ladies and gentlemen, is a reprehensible
14 conduct. That is the kind of stuff that leads to 45
15 years of misinformation. That's the kind of conduct
16 that leads to my clients getting cancer. Because the
17 world doesn't know.

18 Okay. You want to hear something even worse?
19 The current EPA report, the one that Monsanto -- by the
20 way, I don't know if you guys picked up on this
21 throughout this trial, but the EPA doesn't think it
22 causes cancer. I don't know if that was clear from the
23 evidence or not. But because of this report, they cite
24 Williams to this day.

25 They also actually cite the IBT study that we

1 know is fraudulent and invalid; but, putting that
2 weirdness aside, they actually cite the Williams study.
3 It's been permeating and infecting the science for
4 decades.

5 We also heard about the TNO studies. And we
6 didn't spend too much time on it, but I talked about it
7 with Dr. Sawyer. And what we have here is these are
8 dermal absorption studies, right?

9 And we have this study, 2002, that was just
10 shocking amounts of absorption, 10 percent. Right? And
11 we know these DTL ones right afterwards. These are the
12 ones where they cooked and then froze the skin. They
13 basically turned it into leather and then said, hey,
14 nothing gets through.

15 So this is the last honest study they started
16 doing. And it showed a 10 percent dermal absorption
17 rate. And I asked Dr. Sawyer about this. This is
18 straight from the transcripts.

19 "Q. What did the TNO study show?

20 "A. The TNO study is very
21 interesting. It revealed a
22 statistically and significantly higher
23 rate of dermal absorption when actual
24 Roundup was used as opposed to just pure
25 glyphosate. And it described that that

1 10 percent level is because they used
2 pure Roundup. And that, for the very
3 reasons I talked about this morning, in
4 terms of enhancing dermal absorption,
5 there it is.

6 "Q. Was that study completed?

7 "A. Nope, it was terminated.

8 "Q. And that was terminated after
9 they had the results showing what?

10 "A. 10 percent dermal absorption.

11 "Q. And would that -- give me some
12 context. How does that compare to the
13 dermal absorption rates that have sort
14 of been forming in toxicology before
15 that?

16 "A. Well, it would have been more.
17 It would have been 3.3 times the
18 governmental limit.

19 "Q. Now, this TNO study that was
20 terminated after they saw those
21 10 percent absorption rates, was it ever
22 published in the literature?

23 "A. No.

24 "Q. All right. I guess when we
25 talked about it being terminated, who

1 terminated the study?

2 "A. Monsanto."

3 So we have this absorption study that shows
4 everything we know about Roundup's penetration of human
5 skin is wrong. And it's way more permeating. It gets
6 way into the skin. It gets into the bones.

7 They bury it. They don't send it to a single
8 person. They don't publish it. That, ladies and
9 gentlemen, is how you manipulate science. You make sure
10 you only publish the stuff you like, and you put in a
11 deep, dark dungeon the stuff you don't.

12 We also heard about POEAs. And we also heard
13 Dr. Sawyer talk about this. And he explained that
14 there's alternatives -- POEA, that's the surfactant in
15 the Roundup that we use here in the United States. It's
16 the surfactant that was in the Roundup that the Pilliods
17 used. Okay? And I asked him:

18 "Q. Are there alternatives to this
19 stuff?

20 "A. Yes.

21 "Q. And are those alternatives less
22 toxic?

23 "A. Yes."

24 I mean, there's numerous amount of nonionic
25 surfactants. One that we're all familiar with that I

1 use every morning and every evening is my contact lens
2 solution. That is a nonionic surfactant, and it's
3 harmless.

4 But another example is the European Union.
5 They now use a polyethoxylated ether amine instead of
6 the tallow amine. Tallow amine is the POEA, by the way,
7 which is about, I think -- I believe, from what I've
8 read, it's about 40 percent less toxic than the POEA
9 used in the U.S. by Monsanto.

10 So, certainly, there's alternatives. And
11 they've been around a long time too. But not in the
12 U.S. They're just not used here.

13 And I asked:

14 "Q. Had the Roundup that Mr. and
15 Mrs. Pilliod been using contained a less
16 toxic surfactant than POEA, would that
17 have reduced their risk of contracting
18 non-Hodgkin's lymphoma?

19 "A. It would have significantly
20 reduced the actual potency of the dose
21 they received by a good margin."

22 So there is the surfactant that they sell in
23 U.S. And they admit they're banned in Europe. We know
24 that they're more toxic, highly more toxic, that they
25 have a synergistic effect with glyphosate, making it

1 more genotoxic.

2 This evidence, by the way, is undisputed. We
3 heard this from Dr. Sawyer. And they didn't offer
4 anybody to say it's wrong, because they can't. The
5 studies show what the studies show. They have this.

6 So the question you might ask is, well, why
7 are they doing it? If there's a less hazardous
8 alternative, why are they selling it?

9 Well, they actually have an email about this
10 question. It's Exhibit 471. And in this email,
11 somebody from Europe, Richard Garnett, is asking
12 Dr. Heydens, "Anyway, there are nonhazardous
13 formulations, so why sell a hazardous one?" This is
14 specifically about POEAs, and it's a confidential
15 document.

16 And Dr. Heydens responds, a couple of
17 comments.

18 First, "There's still a strong sentiment in
19 St. Louis that we need to continue to defend tallow
20 amines, even though we prepared to switch over because
21 of their impending demise. The reasons to do so:

22 "1. Domino effect on ether amines. Defend
23 other world areas to the best of our ability.

24 "Second, I was in Brazil all last week.
25 They're very worried about this coming across the

1 Atlantic to their part of the American hemisphere."

2 It's not a question of could they have used an
3 alternative. They knowingly used a more toxic one, one
4 that their own scientist calls more hazardous. And the
5 reason why is because they're worried about sales.
6 They're worried about it affecting how things happen
7 here in the U.S.

8 The definition of punitive damages, punitive
9 malicious conduct, the judge read it. It's a knowing
10 disregard for public safety. There couldn't be clearer
11 evidence of that here.

12 And we know that that specifically applies to
13 the Pilliods because they used this stuff for 30 years.
14 They used the toxic stuff for no reason.

15 And Dr. Sawyer told us, if they hadn't been
16 using it, if they had used a less toxic one, maybe with
17 some protective gear, if they were warned about that,
18 gosh, they wouldn't have gotten sick at all.

19 So that's the POEA situation. Let's talk
20 about the warnings.

21 You know -- well, I'll just show you. There's
22 a document, Exhibit 26. This is all in evidence, ladies
23 and gentlemen. I'm not making this stuff up. Okay?

24 This is from 2002. And it attaches an email.
25 And it says here is a document on operator exposure for

1 MON2139. MON2139 is Roundup.

2 And it says right here, "Operator exposure for
3 MON2139. The purpose of this document is to evaluate
4 the operator exposure when spraying Roundup under UK
5 conditions."

6 So what they did is they actually did a study
7 with people spraying Roundup in the real world and
8 measured their exposures. They wear little patches on
9 their skin, and they're seeing where it absorbed. And
10 then they went and measured how much absorption was
11 actually happening. It's a pretty commonsense way of
12 measuring, hey, what's the proper exposures that people
13 experience when they're spraying stuff?

14 And the next logical step is to make
15 recommendations for protecting yourself. This is
16 Monsanto's own study. And they recommend:

17 "Wear suitable protective gloves and face
18 protection (face shield) when handling or applying the
19 concentrate.

20 "Wear suitable protective clothing
21 (coveralls), suitable protective gloves, rubber boots,
22 and face protection (face shield and dust mask) when
23 spraying through ultra-low-volume application and
24 mistblower equipment.

25 "Wear suitable protective clothing (waterproof

1 jacket and trousers), suitable protective gloves, and
2 rubber boots when using low-volume nozzles in knapsack
3 sprayer, handheld rotary CDA sprayers, and handheld weed
4 wiper equipment."

5 They're saying, when you spray this stuff, you
6 have to wear protective gear. You got to wear rubber
7 gloves. You got to wear coveralls. You got to wear
8 boots. And there's more recommendations for another
9 formulation in this document.

10 And we know Monsanto heeds this stuff because
11 this is their own internal safety data sheet. This is
12 what they tell their own employees who are spraying
13 Roundup. And this is lawn and garden products, this is
14 Roundup Weed & Grass Killer Super Concentrate, the very
15 stuff the Pilliods sprayed. This is from 2010. This is
16 even before IARC or any of that stuff.

17 And what do they say here? They have a whole
18 section on personal protection. They talk about wearing
19 eye protection, chemical goggles. For skin protection,
20 wearing resistant gloves. Wear a face shield. Wear
21 chemical-resistant clothing and footwear.

22 They did this study. And then they tell their
23 own employees "Protect yourself against our product."

24 But then you look at the label that people
25 actually get, people outside of Monsanto, people like

1 the Pilliods. There's no discussion of protective gear
2 at all. There's no discussion of cancer.

3 And, in fact, they admit it. They never
4 warned anybody about cancer. They've never warned
5 anybody to wear gloves. It's just admitted. It's not
6 even a disputed fact.

7 And then they put out commercials like this.

8 (Video excerpts played in open court; not
9 reported herein.)

10 **MR. WISNER:** This is how they're advertising
11 it, shorts, short-sleeved shirts. Of course
12 Mrs. Pilliod used shorts and short-sleeved. She saw
13 this ad. She believed it was safe.

14 I mean, just think about this. Their own
15 operator exposure studies are saying "you have to wear
16 chemical boots and chemical overalls," and they're
17 telling the public to wear shorts. Reckless? That's
18 deliberate and knowing disregard for human safety.

19 And you know what? It directly links to the
20 Pilliods because they -- they believed these guys. They
21 didn't get to see all the internal documents. And when
22 they sprayed it, they didn't take any protections.

23 If they had, their exposure would have been
24 dramatically reduced. It wouldn't have gotten under
25 their skin. It wouldn't have gotten into their bones.

1 It wouldn't have caused the mutations that lead to
2 lymphoma.

3 **THE COURT:** Counsel.

4 **MR. WISNER:** Break time?

5 **THE COURT:** Break time.

6 All right. We're going to have a ten-minute
7 break.

8 So I would remind the members of the gallery,
9 please do not talk to any of the jurors.

10 Jurors, please don't talk to anyone about
11 anything. There are lots of people around today. So
12 I'm just warning you to not speak about anything or to
13 anyone. Okay?

14 Thank you. We're going to start at ten of the
15 hour.

16 (Recess taken from 10:40 a.m. to 10:58 a.m.)

17 **THE COURT:** All right. Mr. Wisner, you may
18 resume.

19 **MR. WISNER:** Thank you, Your Honor.

20 So we're going through the first stop here on
21 our road map, the 40 years of deliberate disregard for
22 consumer safety. We've gone through IBT, fabricating
23 science, bearing studies, POEAs, refusing to warn. And
24 there's a difference between failing to warn and
25 refusing to warn. Right?

1 One of the things that I think is really
2 important to understand how the law works is that the
3 obligation to warn rests with Monsanto, not California
4 EPA, not the EPA. What that label says and what it does
5 not say is their choice and their choice alone.

6 So when I talk about refusing to warn, I'm
7 talking about the fact that Monsanto, notwithstanding
8 what they know about the risks, notwithstanding what
9 they know about protective gear, and notwithstanding the
10 fact that they tell their own employees about these
11 things, they don't tell consumers. That's their choice.

12 The last topic is kind of the catchall one.
13 It's a term called "freedom to operate." And it's
14 actually, again, not my term. This is Monsanto's own
15 use. It's their own sort of corporate terminology. And
16 there are -- I was going through it last night -- like,
17 70 exhibits that deal with FTO in evidence. And I could
18 literally go through all of them, but I would never get
19 done in time. So I'm going to go through some of the
20 important ones that I think illustrate what it is.

21 I think the one that is probably the most
22 important is their FTO document specifically about lawn
23 and garden. This is the very stuff that the Pilliods
24 used. They say what we want to be known for; what we
25 want to not be known for. Obviously, they want to not

1 be linked with safety concerns or endless legal
2 challenges or reputational stuff. That's just common
3 sense. Nothing exciting here.

4 But they start talking about what "freedom to
5 operate" means and how they do it. And they frame it as
6 risk versus return. What freedom to operate is is
7 reducing or eliminating restrictions. That's what it
8 is. It's about being able to sell their product without
9 any restrictions, without any labeling, freely, and
10 without regard to human safety. Because what they care
11 about is making money.

12 And, ladies and gentlemen, there's absolutely
13 nothing wrong with making money. This is America. We
14 have capitalists, big corporations, that make lots of
15 money. That's great. But we require that you make
16 money honestly. And when you sell a product, you have
17 to tell people about the risks. That's just how it
18 works.

19 So it's all about winning the argument.
20 Right? And in this graphic, they're visually showing us
21 exactly what they do. They create stuff to change the
22 balance. And we see this, for example, in some of the
23 regulatory studies. Right? We have all these human
24 genotox studies and actual human lymphocytes showing
25 genotoxicity. I'll look at that later. They haven't

1 disputed any of that. They can't because positive
2 results are the positive results.

3 But instead of looking at that issue, they
4 counter it with bacteria studies on salmonella. They do
5 dozens and dozens of those because they know they're
6 negative. It's not a mutation of salmonella. We know
7 that. And then they go, "You see? It's not a
8 mutation."

9 Dr. Levine did that the other day. She kept
10 going to the salmonella studies and saying they're all
11 negative. That's just manipulating the science. That's
12 fabricating red blocks to balance the scale.

13 And then they actually specify what they do:
14 Actively tell our story, build the right relationships,
15 let nothing go, and discomfort our opposition.

16 You notice what's missing from this.
17 Protecting consumers, ensuring the safety of our
18 product. No. They don't care a lick about that.
19 That's not what freedom to operate is about. It's about
20 letting nothing go and discomforting our opposition.

21 We have examples of that everywhere. This
22 presentation ends with the key question, return on
23 investment. How much money are they going to make by
24 the actions that they take?

25 Let's look at some of the ways that we see

1 this discomfoting opposition or attacking scientists
2 has played out in some of the evidence we have in this
3 case.

4 There's an interesting document, Exhibit 4.
5 We call it the "whack-a-mole document." You'll see why
6 in a second. It starts off with an email by
7 Dr. Goldstein. He's a lead of medical sciences and
8 outreach. This is back in 2010. And this scientist
9 reaches out to Dr. Goldstein and is -- and this is in
10 regard to a news article about GM foods are more
11 dangerous for children than adults. And it says, "Dan,
12 this is like playing whack-a-mole at the carnival.
13 Jeff's back again. We'll be working on this too. Isn't
14 freedom of speech wonderful? Bruce."

15 So this is somebody is raising a scientific
16 concern, a safety concern. And this researcher says,
17 "It's like playing whack-a-mole. Isn't freedom of
18 speech great?"

19 Now, what would the responsible company
20 respond to this? Let's just imagine this before we get
21 to the response, what would the responsible entity.
22 "Hey, comparing safety data about children's health is
23 not whack-a-mole; it's something that we have to
24 seriously consider and think about. Let's look at the
25 study closely. Let's figure out a way to see if there's

1 an actual problem here, because we owe that to the
2 consumers" who Monsanto is making billions of dollars
3 off of every year. Okay. That would be the responsible
4 thing to do.

5 Here's Dr. Goldstein's response. Two
6 comments. "Funny you should say that. Donna Farmer,
7 glyphosate toxicology, and I have been playing
8 whack-a-mole for years and calling it just that. We
9 were joking about it yesterday."

10 I mean, you have to sort of, for a second,
11 realize what this is saying. Okay? We have a
12 pediatrician, a doctor at Monsanto. He's literally --
13 his training is to treat children. He's given a study
14 that shows a risk in children, and he's saying, "Yeah,
15 we call it whack-a-mole."

16 Do you know what whack-a-mole is, by the way?
17 It's a carnival game where the mole pops up and you
18 whack it. That's how they're treating science. They're
19 playing whack-a-mole. They're discomfoting the
20 opposition, letting nothing go.

21 We have another example of FTO. This is an
22 email exchange. I'll get to the email in a second.

23 So in 2008, the Eriksson study. Right?
24 You've heard about the Eriksson study. I'm not going to
25 spend a lot of time on it. Don't worry. But in this

1 study in 2008, it shows statistically significant
2 doubling of the risk. It also showed that, if you used
3 it more than ten days, there was a 236 percent increased
4 risk and, if you used it for more than ten years, it's
5 226. So it's consistently shown a dose-response as well
6 as a never ever analysis.

7 Now, Monsanto says ignore this. It's not
8 fully adjusted for other pesticides. And I believe,
9 when you fully adjust, the 200 goes down to 150. So
10 it's still elevated. It just becomes no longer
11 statistically significant. But I'm not going to fight
12 about that right now. I don't think we need to.

13 So this study comes out. This is a reputable
14 scientist, an independent researcher who's done their
15 own epidemiological study, raising serious concerns
16 about glyphosate.

17 This gets forwarded to Dr. Farmer. It's from
18 Dean Nasser. It's a press release that's specifically
19 discussing the thing. See if I can do this. It says
20 right here, "Exposure to glyphosate or MCPA can more
21 than double one's risk of developing non-Hodgkin's
22 lymphoma according to a new epidemiological study
23 published in the October issue of the International
24 Journal of Cancer. The case control study finds a 2.02
25 odds ratio for exposure, 2 times the chance of

1 contracting the illness due to glyphosate." That's the
2 Eriksson study. And it discusses the science and what
3 it means for consumer safety.

4 Donna Farmer's response: "Thank you for
5 forwarding this. We've been aware of this paper for a
6 while and knew it would only be a matter of time before
7 the activists pick it up. I have some epi experts
8 reviewing it. As soon as I have that review, we will
9 pull together a backgrounder to use in response."

10 Here is their bottom line: "How do we combat
11 this?"

12 She says right there at the bottom, "Avoid
13 carcinogenic herbicides in foods by supporting organic
14 agriculture and on lawns by using nontoxic land care
15 strategies that rely on soil health, not toxic
16 herbicides."

17 So this article ended, "Hey, guys, maybe we
18 should have sustainable agriculture and maybe we should
19 not use toxic pesticides." Pretty reasonable idea.

20 Her response: "How do we combat this?" Not
21 "How do we engage these scientists? How do we look at
22 the study closer?" It's, "We're hiring experts to
23 respond to it. How do we fight it?" It's like playing
24 whack-a-mole, letting nothing go, discomfoting the
25 opposition.

1 During the deposition of Dr. Reeves, which we
2 played over several days -- and it was a very long
3 deposition. I apologize. But there was a lot of
4 evidence in that testimony. I showed him document after
5 document after document where studies were coming out
6 and Monsanto was reacting to it pretty inflammatorily.
7 I don't want to go through all that. I just don't have
8 time.

9 But I think the quintessential FTO strategy
10 was what Monsanto did to IARC. Okay? So let's look at
11 this document. This is a revised IARC reactive
12 messaging. It's to Dr. Farmer and Dr. Heydens. We've
13 seen this a lot. It's Exhibit 8. It says, "Please find
14 a revised IARC messaging."

15 Notice the date. It's February 12, 2015.
16 This is before IARC has met, voted, published anything
17 about any scientific decision. Okay?

18 All they know right now is that they're going
19 to meet. And if Monsanto truly believed, truly
20 believed, that their product was safe, there would be
21 nothing to worry about. Right? They would look at it
22 and say, "Hey, it doesn't cause cancer. You're good."
23 Right?

24 But this is before the meeting. And here's
25 what they say: "This component represents the

1 orchestrated outcry that could occur following the March
2 3rd IARC monograph expert meeting."

3 Before they know any results, before they know
4 why IARC thought what they thought, they already have a
5 plan in place to orchestrate outcry.

6 There could be no clearer evidence of
7 malicious intent, because if anybody were to say, "I'm
8 going to attack that organization before I hear what
9 they have to say no matter what they say," that is not
10 honest. That is -- that's freedom to operate. Anything
11 that restricts it, regardless if it's true, must be
12 attacked. We orchestrate outcry. This isn't the only
13 document. There are, like, dozens of these. Right?

14 Here's a couple more. This is the plan, also
15 before the IARC meeting, February 23, 2015:

16 "Preparedness and engagement plan for IARC carcinogen
17 rating of glyphosate." This is in February, before they
18 meet.

19 It says right here. "The objective is to
20 protect the reputation and FTO of Roundup." So we're
21 talking about freedom to operate. This is their term.

22 And their first bullet point after IARC,
23 "Orchestrate outcry with the decision." They're already
24 planning to attack them. They haven't even seen what
25 they said. They haven't even voted, they haven't even

1 met yet, and they're already going to take them out.

2 This is another document that's in evidence.
3 And it's IARC follow-up. They talk about their goals.
4 Specifically, they want to invalidate the relevance of
5 IARC.

6 It goes on to say, "To protect regulatory
7 freedom to operate." It affects registration. They
8 don't want any bans. Proposition 65 here in California.
9 The SDS revision, the Safety Data Sheets revision that
10 they have to do. International requirements, if any.

11 Number 3, litigation defense prevention.
12 Stopping this moment from happening. I mean, that's the
13 fear. Right? Of all the things that they're worried
14 about, they're worried about this happening right now,
15 where a young lawyer, who's not afraid of them, gets to
16 look at all the documents and talk to 12 or 14 jurors,
17 show them the documents and say, "Good grief." This is
18 their nightmare.

19 But we live -- I mean, we live every day
20 seeing things around us that are wrong. Okay? Things
21 that we -- that's just not right, that shouldn't happen.
22 And we're all powerless to do anything about it. We
23 are. We can't do anything. I spend my life going, "I
24 wish I could do something about it. I wish I could help
25 this person. I wish I could help that person," but I

1 can't.

2 But right now, that's not the case because you
3 are seeing something that's wrong, and you are able to
4 actually do something about it. It's pretty cool.

5 All right. So we have more and more
6 documents. I think this is a pretty interesting
7 document because I think -- I forget the exhibit number.
8 Sorry. I stopped putting them up there. It's 524.

9 I put this one because it's an old adage.
10 Right? You can judge a person by the company they keep.
11 Right? Very common adage.

12 This is actually the email from Dr. Goldstein,
13 February 2015, before IARC has met. And they reach out
14 to this ACSH group. Okay? You heard testimony about
15 this from Dr. Goldstein. He told you these are the
16 people who said tobacco was safe, lead was safe, benzene
17 was safe. These are the people that you go to when you
18 know you have something that causes cancer and you want
19 their support. Because they'll give it to you. You pay
20 them for it.

21 And he says it right here. "While I would
22 love to have more friends and more choices, we don't
23 have a lot of supporters and can't afford to lose the
24 few we have. I am well aware of the challenge with
25 ACSH, and I know Eric has valid concerns. So I can

1 assure you I'm not all starry-eyed about ACSH. They
2 have plenty of warts. But you will not get a better
3 value for your dollar than ACSH. They are working with
4 us to respond, if needed, to IARC."

5 Tells you about the company that, when they
6 are worried about their freedom to operate, they go to
7 these guys.

8 That's 45 years of deliberate disregard for
9 consumers' safety. And there's actually more. I can
10 literally go on with their misconduct for hours and
11 hours and hours. But I start off with this because this
12 is the stories that we didn't have experts on. Right?
13 These are stories that you have pieced together, and I
14 wanted to make sure you saw it because the evidence is
15 there in spades.

16 Let's get on with the road. This is how we
17 got there. Right? 45 years of misconduct.

18 The first big question is can Roundup be a
19 substantial contributing factor in causing NHL? This is
20 the general causation. Does Roundup cause cancer?
21 That's the big question. God, we've heard a lot of
22 testimony about this. I have to address some of it. I
23 won't spend too much time on it.

24 The first thing, though, you have to
25 understand is that the burden of proof, when it comes to

1 proving general causation is not beyond a reasonable
2 doubt. The judge instructed you -- I believe it was
3 Instruction Number 8 or 9. But we don't have to prove
4 absolute certainty. If we had to prove absolute
5 certainty, no plaintiff could ever succeed in any trial
6 because there's always room for probability, unsurety.

7 What we have to prove is that it's more likely
8 than not. And we talk about 51 percent. It could be
9 50.01 percent; it could be 50.0001 percent. It doesn't
10 matter. The point is just a feather scale tip in our
11 favor, and we win.

12 That's the legal burden. That's why we ask so
13 many questions about it in voir dire, is we wanted to
14 make sure you were comfortable with it. So you're in
15 there, and somebody says to you in the deliberation
16 room, "I'm just not sure about that," that's not the
17 requirement. Right? So if you go, "I'm not sure; I
18 think so," that's 51 percent. That's more likely than
19 not.

20 And so don't forget the burden. Okay?
21 Because Monsanto -- and, in fact, Dr. Levine and
22 Dr. Bello, they were all using really high levels of
23 certainty. "Has to be a known cause of cancer, and
24 there's only three that we know about ever."

25 That's not how the legal system works. We

1 don't have to prove a known cause of cancer. We have to
2 prove a substantial factor. This is the jury
3 instruction:

4 "A substantial factor in causing harm is a
5 factor that a reasonable person would consider to have
6 contributed to the harm. It must be more than a remote
7 or trivial factor. It does not have to be the only
8 cause."

9 That phrase, "it does not have to be the only
10 cause," is really, really important. So what does that
11 mean? Think it through a little bit. It just has to be
12 something that reasonably contributed to the harm.

13 So, for example, with Mr. Pilliod, you guys
14 believe Dr. Levine and think that he had this
15 compromised immune system. And although she didn't say
16 it caused it, she got pretty close to saying it caused
17 his cancer. If you believe that but you also think,
18 "You know, I think Roundup contributed to it; I think it
19 was a substantial contributor to the cancer," we win.
20 That's all we have to prove. That's the law.

21 And all these risk factor and causation
22 distinctions are all just a smokescreen to confuse you
23 from the simple, simple fact.

24 And this is at the 51 percent burden. So we
25 don't have to prove absolutely certainty; we have to

1 prove more likely than not that it was a substantial
2 contributor. That's it. If we prove that, if you
3 believe that to be the case, it's over. We win.

4 What do we know? We know the California EPA
5 has determined that glyphosate is a substance known to
6 cause cancer. We've heard that.

7 We've heard about these three pillars of
8 causation. And I think it's pretty amazing that,
9 essentially, these three scientists, the only three
10 scientists that addressed causation in any way by
11 Monsanto -- Dr. Bello, Dr. Levine, and Dr. Mucci -- they
12 just looked at epi.

13 They didn't look at any of the animal studies
14 that I went through in detail with Dr. Portier. We went
15 through about tumors. It was a long time ago, but we
16 went through a lot of frickin' science on that stuff,
17 showing the malignant lymphomas. We went through all
18 those genotox studies and human lymphocytes. Positive.
19 Positive. Positive. I'll show you in a second.

20 They didn't look at any of that. They just
21 offered opinions about epi.

22 So from a legal perspective, animal studies
23 and cell studies are undisputed. What we've presented
24 to you about genotoxicity and oxidated stress, what
25 we've presented to you about animal studies has not been

1 disputed by a single person that sat in the chair that's
2 over there right now. Not a single person said to
3 you -- you heard the judge. Evidence is testimony.
4 Right?

5 Not a single person said that Dr. Portier was
6 wrong. Not a single person said he was wrong about the
7 cell studies. It's undisputed. And there's a reason
8 for that. It's because it's not really disputable.
9 It's pretty clear-cut.

10 So in the animal studies, we have glyphosate
11 studies and we have Roundup studies. In the glyphosate
12 studies, we have these rat studies, we have repeated
13 findings of tumors, we have skin keratomas, we have
14 thyroid cancers, we have pancreatic islet cell tumors,
15 we have repetition across species, across strands in
16 different laboratories. It shows unequivocally that
17 there is strong evidence that shows glyphosate causes
18 tumors in mammals.

19 Now, there was this argument about, well, the
20 dosing levels are so high. Well, first of all, the
21 dosing levels in the Lankas study, the first one, were
22 21 versus Wood, which was a thousand. So these studies
23 are actually pretty broad spectrum. And 21 isn't very
24 far from what the actual exposure was for a person.

25 So this idea that these animal studies don't

1 tell us anything is untrue. But, more importantly, you
2 have to use high doses because you only have about 50
3 animals per group. So if you were going to do a proper
4 human dose-level experiment, we're talking out of 500
5 people, people who were exposed to glyphosate get ten
6 NHLs and people who don't get five. Right? We're
7 talking about five -- show that difference, that ratio,
8 that's a doubling of the risk.

9 Not everyone gets cancer. So if you were to
10 use human dose levels, you would have to use thousands
11 and thousands and thousands of animals in an animal
12 study. That's not only inhumane, it's not scientific.

13 So what they do, they create a dosing scale.
14 And they compare those that are exposed to glyphosate
15 versus those that are not. It's how it's done. It's
16 the standard model.

17 And that Monsanto thinks that you should
18 ignore it, well, really simple. They haven't done one
19 since 1991 after they got the bad result. Of course
20 they want you to ignore it because the data is
21 overwhelming.

22 When you go to the mice data, it's really bad.
23 Okay? Mice are the very species that are used to study
24 lymphoma. You heard Dr. Portier say that. Undisputed
25 testimony. In every single mouse study, every single

1 one, there's malignant lymphoma when mice are exposed to
2 glyphosate.

3 Good grief. That is powerful evidence that
4 this is not only causing tumors but that it's causing
5 lymphoma, the very cancer that the Pilliods had. That
6 Monsanto didn't bring a single expert to try to even
7 refute this should tell you volumes about how important
8 this data is.

9 Now, Roundup? Well, Monsanto has actually
10 never done a Roundup study on rodents. In fact, no one
11 has. No one has done a long-term carcinogenicity study
12 on Roundup.

13 And considering what we know -- these are the
14 admissions on that point. By the way, they're not
15 prohibited from doing it either.

16 Considering what we know about that, that's
17 pretty amazing. They've known for decades and decades
18 that the combination of glyphosate and the surfactant is
19 more genotoxic. It has a synergistic effect. Dr. Parry
20 told them in 2000. But they never studied it. The
21 reason why they haven't studied it, when we pushed them
22 on it in the depositions that we showed you, is because
23 the EPA never told them they had to.

24 Okay. That's not how science works. Just
25 because the EPA doesn't tell you you have to do it, then

1 you don't do it? That's pretty outrageous. We actually
2 know it's not true too because the EPA said redo the
3 mouse study, and they still didn't do it. So it's not
4 like, even if the EPA told them to do it, they would do
5 it. But they haven't done it.

6 The one study we did see was a study done by
7 George and colleagues, Jasmine George. She's with a
8 group of researchers out in India, and they tried to do
9 a study that hadn't really been done before.

10 We heard about this thing call initiator and
11 promoter. In cancer parlance, what that means is
12 there's things that initiate a cancer, like smoking.
13 You heard Dr. Sawyer tell you. Smoking. That initiates
14 the cell. It causes an initiated indication.

15 But cancer cells don't necessarily grow. They
16 sit there for decades and decades and decades, just sit
17 there, happy as pie, not hurting anybody.

18 What a promoter does is it takes that
19 initiated cell and says "go" and causes the
20 proliferation of cancer, causes it to spread through the
21 body.

22 So they tried to look at this very issue. Is
23 glyphosate, or specifically Roundup, an initiator or
24 promoter?

25 They did a standard study. They did something

1 that no one else had done. They actually used Roundup.
2 Okay? What they did is they took these mice, and they
3 painted their skin with an initiator, and then three
4 times a week for about 13 weeks, they painted their skin
5 three times with Roundup. And then at the end of it,
6 they asked, what are the results? What are we seeing?

7 So in the animals that have just been given
8 glyphosate but no initiator, there was no tumors in
9 their skin. The animal that had just control with
10 nothing had no tumors.

11 But after 13 weeks, which is not a very long
12 period of time, of the animals that got the initiator
13 and then Roundup three times a week, 40 percent of them
14 had tumors in their skin. 40 percent.

15 And when we looked at the study -- I'm not
16 going to go into too much detail beyond that, but when
17 we look at the study, we looked at the protein effects,
18 and we looked at how it is affecting the proteins in the
19 cells, the study shows that Roundup acts like a
20 promoter, just like all the known promoters that we know
21 about.

22 That's why the study concludes, unequivocally,
23 "Here we showed the carcinogenic effects of glyphosate
24 using two-stage mouse skin carcinogenesis model and
25 proteomic analysis. Carcinogenicity study revealed that

1 glyphosate has tumor-promoting activity." Promotes
2 tumors.

3 That's really important in this case. Right?
4 Because Monsanto has said Mr. and Mrs. Pilliod had all
5 these terrible risk factors, had all these initiated
6 cancer cells. And then, like lighter fluid on a
7 barbecue, you just added Roundup, and you get cancer.
8 30 years. 1500 days of exposure.

9 This George study is unrefuted. It's not. No
10 one has come to you and said, "Hey, it's not a
11 promoter," because the science is there.

12 That is actually the only study done on
13 Roundup that you've seen. And what we know, then, from
14 this data in the animal studies is that it causes
15 tumors, it causes lymphoma in glyphosate, that Monsanto
16 refuses to study Roundup in long-term animal studies,
17 and that Roundup with POEA is, in fact, a cancer
18 promoter.

19 And, by the way, I just wanted to point out,
20 in this George study, it actually says glyphosate 40
21 percent POEA. It's literally the stuff we're talking
22 about. Okay?

23 All right. So that's the animal data. The
24 cell data is actually even, in some ways, more powerful,
25 right? We looked at genotoxicity. We looked at

1 oxidative stress. We looked at absorption,
2 distribution, metabolism, and extrusion.

3 Genotoxicity, Dr. Portier went through each
4 one of these studies with you. And they are basically
5 across-the-board positive. Many of them are
6 specifically in human lymphocytes. They're looking at
7 the very cells that cause the mutations in humans that
8 leads to lymphoma. And it's just positive basically
9 across the board.

10 Not a single person from Monsanto has said
11 anything about why this is not true. And when we look
12 at this undisputed evidence and we look at how it
13 affects human lymphocytes, the data is actually pretty
14 disturbing because there's a difference between
15 glyphosate and Roundup.

16 This is a study we showed you, the Wozniak
17 study. And they're looking specifically at human blood.
18 And they're specifically looking at genotoxic risk. And
19 what it shows here is that, at concentrations of 250
20 milliliters of pure glyphosate, you start seeing genetic
21 damage. Okay?

22 At 5 for Roundup, you start seeing genetic
23 damage. That's 50 times more potent when you have POEA
24 and you have the glyphosate, 50 times more genotoxic.

25 You wonder why Monsanto doesn't want to study

1 Roundup? That's why. They know what happens.

2 This, again, is undisputed. No one has said
3 this study was wrong.

4 Oxidative stress, again, we looked at data,
5 the human data. This is all human data. And it was all
6 positive except for one negative study. And that was
7 just in glyphosate. The formulated results were
8 positive.

9 I mean, it's positive across the board. It's
10 showing increased rates of oxidative stress whether it's
11 glyphosate or Roundup. Undisputed. And it's also
12 undisputed that genotoxicity and oxidative stress are
13 known mechanisms of cancer.

14 But when you take that piece of information,
15 and you add it -- I'm sorry. Actually, I jumped ahead.
16 Sorry.

17 This is the same Wozniak study. And they
18 actually compared the oxidative stress as well. And,
19 again, they compared Roundup to glyphosate. Okay? And
20 this is at the midpoint where they start seeing
21 statistically elevated rates of oxidative stress. And
22 for Roundup for 5 milliliters -- or, sorry -- uM, they
23 start seeing the oxidative stress. And then they start
24 seeing it at 500 for glyphosate.

25 So, for oxidative stress, it's actually a

1 hundred times more likely to cause oxidative stress.
2 Again, more evidence of the synergistic effect of
3 Roundup with the POEA and glyphosate.

4 Now, when you take that piece of
5 information -- okay? -- it's genotoxic. It causes
6 genetic damage in human lymphocytes. Okay? It causes
7 oxidative stress. But Roundup is more potent than
8 glyphosate.

9 You put all that, and then you look at where
10 it goes in the body, the story comes together completed.
11 This is the Brewster study. And I talked about it with
12 Dr. Phalen, Monsanto's person, as well as Dr. Sawyer.

13 And although we went back and forth on it for
14 a while, he finally agreed that what this shows is that,
15 when you've eaten glyphosate, it starts off in the small
16 intestine, which makes sense. But, after seven days,
17 the dose that's remaining in the body migrates to the
18 bone.

19 So we know that this substance is genotoxic.
20 We know that it causes oxidative stress, and we know,
21 after seven days, it's migrating to the bone, the very
22 place where lymphoma starts.

23 And when we start thinking about 30 years of
24 exposure week after week after week, repeatedly
25 assaulting the bone genome, finally, you get a mutation

1 that sticks. And then finally you get lymphoma. This
2 is not particularly complicated.

3 And Dr. Phalen, their exposure guy, he
4 actually agreed, yeah, it does go to the bone. This is
5 undisputed.

6 So when you take the animal data showing
7 lymphoma, you take the cell data, which that shows that
8 it's genotoxic in human bones -- okay? -- it's really --
9 you really don't even need to get to the epidemiology.
10 Of these two alone, it's more likely than not something
11 that causes lymphoma. You don't need the epi to get
12 there.

13 But that's where Monsanto spent all of its
14 time defending it. So that's how we spent so much time
15 talking about epidemiology. It's kind of awkward,
16 right?

17 The strongest, most obvious, evidence just
18 gets told to you once by Dr. Portier. And then this
19 never gets disputed for a month, so it's easy to forget
20 it. But it's actually overwhelmingly powerful. And
21 every single agency, whether it be EPA or IARC or
22 whatever, they look at all three of these pillars; they
23 don't just look at epi.

24 In fact, the EPA doesn't even really look at
25 epi because it's about the formulated product, and

1 they're focusing on glyphosate.

2 So let's talk about epi. It's one pillar;
3 it's not the only pillar. It's obviously a very
4 important part of the science. No one is saying to
5 disregard the epi. It has really good strengths, right?
6 It shows real-world exposures. It's the formulated
7 product; it's not just glyphosate. You have people who
8 have the same disease, non-Hodgkin's lymphoma, as the
9 Pilliods. So it's a helpful piece of information in
10 that regard.

11 But it has lots of problems, right? It's
12 subject to misclassification error. And if you have
13 misclassification, it obscures the risks. And that's
14 just basic epidemiology. It's not always fully
15 controlled, right?

16 When you're doing an epidemiological study,
17 you're trying to compare people who are exposed to
18 people who are unexposed. Whether it's the AHS or any
19 other study, it's almost impossible to find that.
20 Because people are exposed to glyphosate outside of
21 spraying it, right? It's in the food. It's all over
22 the place.

23 So when you're trying to compare people in an
24 epidemiological study to one another, the unexposed
25 people are actually still exposed; they're just less

1 exposed. That creates a lot of noise, and it makes it
2 harder to see a signal, which is one of the reasons why
3 dose response is such an important thing to look at in
4 the end.

5 There's also inherent biases. And sometimes
6 they go towards the null, they obscure risks. Those
7 biases exist. But there's also biases that inflate the
8 risks. And I think we should, obviously, consider
9 those. So those are the strengths and the weaknesses of
10 the epidemiology.

11 I went through, and I found out all the never
12 ever used numbers. Okay? And I put all the ones that
13 were adjusted. For example, Eriksson -- for example,
14 2008.

15 So, for example, Eriksson 2008, I have the
16 unadjusted number here, which was statistically
17 significant. And then the adjusted number right here,
18 while elevated, was not fully significant, right?

19 And we kind of talked about this. But when
20 you talk about the likelihood of risk -- right, when you
21 have a confidence interval that spans this part, as you
22 can see, the vast majority of the line is to the right
23 of 1. And anything to the right of 1 is a risk. Only a
24 small portion of it is to the left of 1.

25 What that means is that, if you were actually

1 looking at this data and trying to decide what is the
2 more likely situation, is it actually a risk or not,
3 most of the data is to the right of 1. That's how you
4 look at this data.

5 But Monsanto doesn't like that. They say only
6 look at statistically significant results. Well,
7 there's plenty of statistically significant results.
8 They go, no, no, no, only look at adjusted data.

9 By the way, all of this data is adjusted.
10 Okay. It's adjusted for age, sex, location, the things
11 that you always adjust for.

12 When they're talking about adjusted data,
13 they're talking about adjusted for exposure to other
14 pesticides. And this is a sort of complicated issue,
15 but let me just put it out pretty simply.

16 When you're studying people who apply
17 pesticides and you adjust for exposures to other
18 pesticides, you weaken the study's power, by definition,
19 right? Because everyone is spraying pesticide. So
20 you're reducing the number of people who are truly just
21 exposed to glyphosate versus other stuff.

22 Why that's really important is because, if the
23 people who are in the exposed group to glyphosate and
24 the people in the unexposed group have equal exposures
25 to other pesticides, then they would cancel each other

1 out. And there's no need to adjust.

2 There's two aspects to adjustment. And they
3 say, well, that's just for other pesticides. No. You
4 only adjust for other pesticides if the exposure is
5 differential, if you have a reason to believe that the
6 people spreading glyphosate are exposed to this
7 pesticide more than these other people spraying other
8 pesticides. And if you don't have a reason to do that,
9 all you're going to do is widen the confidence interval.
10 That's all you're going to do.

11 Now, the other problem is they actually have
12 to cause cancer. If you adjust for something that
13 doesn't cause cancer, you'll eliminate a risk. The
14 matches and cigarettes, remember. If I did an
15 association between cigarettes and lung cancer, we'd see
16 a risk. But if I adjusted for the use of matches, it
17 would disappear, because people who smoke use matches.
18 And although matches don't cause cancer, it obscures the
19 risk. So you have to be careful with adjustment.

20 But let's take them at their word, just use
21 the adjusted data. This is all adjusted for other
22 pesticides. It's still almost all to the right of 1.
23 Yeah, sure, it's less statistically significant when we
24 only have two studies. One is the top one, the De Roos
25 2003. And this bottom one is the adjusted number from

1 the CNAP study, a massive cohort study that's three
2 times the size of the AHS.

3 But even if you just use fully adjusted
4 numbers, there's still a risk. It's still there. It's
5 not as clear, but it's still there.

6 And then if you look at the DLBCL numbers,
7 right. And, by the way, I'm missing one on here. There
8 should be a 1.1 under Chang and Delzell for DLBCL.
9 That's the one we saw the other day that has two studies
10 that form the basis of it. It's still to the right of
11 1, but it's not statistically significant. So I
12 apologize for not having it on there.

13 But if you look at the DLBCL risks, it's
14 largely again -- well, every single one is to the right,
15 every single one.

16 And then if you look at the dose response,
17 with the exception of Andreotti's Q3, it's all to the
18 right of 1. And I used the Andreotti numbers, by the
19 way, that apply to Pilliod, right? So 20-year lag and
20 those are the various doses. Even AHS, it's to the
21 right of 1. It's not statistically significant, but
22 it's there. And, obviously, all of the meta-analysis is
23 statistically significant, McDuffie, the NAPP,
24 Ericksson, they're all to the right of 1.

25 When you put all of those three -- get them

1 all -- squeeze them all into the same chart, what do you
2 see? You see almost all to the right of 1. This is how
3 you do epi. You look at all the data. And it
4 consistently shows an elevated rate.

5 Now, no one here is suggesting that the
6 epidemiology is slam dunk. No. Dr. Portier testifies,
7 listen, I don't think the epidemiology alone gets you
8 there. But we're not presenting this to epi. We're
9 presenting undisputed animal studies, undisputed cell
10 studies, and an epidemiology that shows a risk.

11 When you put it all together, can you honestly
12 say that, more likely than not, it causes cancer? Yeah,
13 it's pretty obvious.

14 Despite that, Monsanto focuses heavily on the
15 agricultural health stuff. Dr. Bill Reeves, he's a
16 corporate representative for Monsanto, he says it's the
17 most comprehensive look at exposure and health risk.

18 Well, that's not what they said before the
19 results came out. Okay? I showed this to you in
20 opening statement. I will do it quickly here. This is
21 a memo by Dr. Acquavella. It's Exhibit 429, 1997. This
22 is before they know that the AHS is negative, and he's
23 giving his opinion specifically about the AHS.

24 And he says right here, "The exposure
25 assessment in the AHS will be inaccurate." And he goes

1 on to say, "Inaccurate exposure classification can
2 produce spurious results. The conventional thinking in
3 epidemiology is that exposure misclassification will
4 most often obscure exposure-disease relationships."

5 They saw what we said, that there's really a
6 problem with exposure misclassification in the AHS.
7 Dr. Acquavella is the only epidemiologist Monsanto has
8 ever employed, the only one. And he's saying, before he
9 has the results, the AHS isn't very good.

10 But you don't take my word for it. Take --
11 literally, this is the authors on the AHS. And they're
12 talking about misclassification exposure in the AHS.
13 Okay?

14 And they say, "Except in situations where
15 exposure estimation is quite accurate" -- they give you
16 a correlation -- "and true relative risks are 3 or more,
17 pesticide misclassification may diminish risk estimates
18 to such an extent that no association is obvious, which
19 indicates false negative findings might be common."

20 The authors on AHS say, "Listen, guys, unless
21 the risk is, like, over 3 and you have very little
22 misclassification of exposure, you're not going to see
23 anything. It's going to be false negatives." That's
24 what they tell you.

25 And what do we know about the AHS? Both of

1 these things occur. We know the risk is around 2, and
2 we know that there's a whole bunch of misclassification
3 issues in the AHS. The AHS's own study says it.

4 Well, here's what Dr. Farmer said in 1999.
5 She talks about the AHS. And then, down here, she goes,
6 "Many groups have been highly critical of the study as
7 being a flawed study. In fact, some have gone so far as
8 to call it junk science. It is small in scope, and the
9 retrospective questionnaire on pesticide usage and
10 self-reported diagnosis, also from the questionnaire, is
11 thought to be unreliable. But the bottom line is scary.
12 There will be association identified between glyphosate
13 use and some health effects just because of the way this
14 study is designed."

15 She's calling it junk science -- I'm sorry --
16 other people are calling it junk science. She's saying
17 it's unreliable and small in scope. This is back in
18 1999. So before they get the results, Monsanto calls it
19 a flawed study, junk science, small in scope,
20 unreliable, the exposure assessment will be inaccurate,
21 spurious results, obscure disease relationships.

22 But today, when it's negative for glyphosate
23 and NHL, it's the most comprehensive look at pesticide
24 exposure and health risk. That's called hypocrisy. And
25 they haven't brought a single person to explain why it

1 suddenly went from being a flawed study to the greatest
2 thing since sliced bread. And they can't, because the
3 simple fact is the AHS was a great idea; but, when it
4 comes to glyphosate, it just doesn't work, because the
5 use of glyphosate changed so dramatically during the
6 time when they were collecting information, that there's
7 just too much exposure misclassification.

8 Now, are we saying to ignore the AHS? Of
9 course not. You should consider it, absolutely. But
10 should you look at it to the exclusion of everything
11 else? No. That's not science. That's just called
12 cherry-picking. And that's not how it works.

13 When I asked Bill Reeves, the Monsanto
14 corporate representative, about causation, he said that
15 there was no evidence across the board. And when
16 Monsanto's experts testified, they essentially repeated
17 the same thing.

18 Dr. Bello said there's no evidence across the
19 board. Dr. Mucci said there's no evidence of an
20 association at all. Dr. Levine, a little more tempered.
21 She said it's not associated with the development of
22 diffuse large B-cell or non-Hodgkin's lymphoma.

23 There's a problem. This is an email -- it's
24 Exhibit 15 -- from Monsanto's own experts. Okay? And
25 this is back in 2015. It's part of that Intertek panel.

1 And he says, "You can't say no evidence
2 because that means there's not a single scrap of
3 evidence, and I don't see how you can go that far."

4 And then Dr. Acquavella -- again, the only
5 epidemiologist Monsanto has ever hired -- says, "I agree
6 as well that you can't say there's no evidence."

7 Their own epidemiologist is saying you can't
8 say there's no evidence. And this guy has the nerve to
9 take the stand in our case and tell you under oath
10 there's no evidence across the board. It's just not
11 credible.

12 You also have to consider the expertise.
13 Juror Instruction Number 17 talks about how you should
14 weigh expert testimony. And it talks about how you
15 should consider their background, what they looked at,
16 and their qualifications.

17 What do we know about these three experts?
18 Not one has ever published ever once about pesticides
19 ever. Not one has ever talked about whether or not a
20 pesticide causes cancer.

21 And, in fact, Dr. Bello, I think she's
22 published 20 articles. Not one of them ever talks about
23 causation at all. Dr. Mucci, she focuses on prostate
24 cancer. And Dr. Levine, she focuses on HIV and
25 lymphoma.

1 When you compare that to our experts, it's
2 sort of jarring. Okay?

3 Dr. Portier has spent his life studying the
4 causes of cancer. Literally, that's what he did for the
5 National Toxicology Program. There's a reason why, when
6 IARC convened a panel about pesticides and cancer, the
7 one invited specialist was Dr. Portier. He's published
8 hundreds of articles about the causes of cancer. And he
9 specifically has looked at pesticides and cancer.

10 Dr. Ritz has spent her professional career
11 working on the epidemiology of pesticides and cancer.
12 That's what she does in the state of California. And
13 she's been doing it her whole life. She's also a
14 medical doctor.

15 Dr. Weisenburger, not only has he published on
16 pesticides and cancer; he's published on Roundup and
17 cancer. He's an author on the NAPP study, the one that
18 Monsanto makes a big fuss about it. And he told us the
19 NAPP says -- the publication that's coming out is going
20 to say that it's associated with NHL. They can try to
21 say, oh, the NAPP shows it's not there. We had the
22 author here, and he says it does. I don't know what
23 they're doing.

24 Dr. Nabhan, to his credit, he has not
25 published on pesticides. So he falls into the same

1 category of that. And he wasn't here to offer general
2 causation testimony; he was here to talk about lymphoma.
3 And this guy has treated thousands upon thousands of
4 patients with lymphoma. And he's looked at this issue
5 for hundreds and hundreds of hours. He testified to
6 that.

7 To put that in context, Dr. Levine spent seven
8 hours reviewing medical records and 17 hours reviewing
9 the literature. And she said, oop, it doesn't cause
10 cancer. And that's just to give you a sense of the
11 scope of the thoroughness of these opinions.

12 We talked about driver mutations, never
13 mentioned that in her report. She's a hired gun.
14 That's what she's here to do. She's here to give
15 opinions, and that's what she did.

16 Dr. Jameson, he's been studying cancer since
17 he was, like, in high school. He talked about how his
18 mother had cancer, and that's what drove him to do it.
19 He ran the rodent studies for the National Toxicology
20 Program. He's looked at pesticides for about half of
21 his career.

22 I mean, these guys are about as qualified as
23 they come in the entire planet for looking at this very
24 issue. And there's a reason they couldn't find one who
25 had published on pesticides. Because people who know

1 pesticides, people who know lymphoma and that
2 relationship, will come to the conclusion that these
3 guys came to, that it's pretty overwhelming that it
4 causes lymphoma.

5 All right. We know about IARC, 17 independent
6 scientists from around the world, people from the EPA,
7 from the California EPA, renowned universities, spent
8 six months reviewing the science, met in France, had a
9 vote, went through all the science.

10 I think what's really important, when you
11 think about this, is when IARC did its assessment, it
12 didn't have a dog in the fight, right? EPA, EFSA, all
13 these different regulatory bodies, they've been saying
14 Roundup is safe for 40 years. If it turns out that
15 they're wrong, there's literally blood on their hands.
16 Literally. That's a huge pill to swallow.

17 **MR. ISMAIL:** Objection, Your Honor.

18 **MR. WISNER:** You know what? "We made a
19 mistake. It causes cancer."

20 **THE COURT:** Counsel, no "blood on their
21 hands."

22 **MR. WISNER:** I'm sorry. What?

23 **THE COURT:** No blood on the hands.

24 **MR. WISNER:** Apologies, Your Honor.

25 They would have to take responsibility for

1 being wrong. Okay? That's a huge pill to swallow.

2 And so, every time they look at it, they have
3 to balance, do we admit that we've been wrong for 40
4 years or do we toe the party line?

5 IARC doesn't have that problem. They don't
6 have a dog in the fight. They're independent
7 scientists. They don't care if it causes or doesn't
8 cause cancer. They're just going to look at the science
9 objectively. They did, and unanimously concluded it
10 caused cancer. It was a human carcinogen.

11 And we heard from Dr. Jameson that the dispute
12 that they had at the meeting was not about was it a
13 problem or a possible; the fight that they had was
14 between was it a known carcinogen or a probable
15 carcinogen. Because the scientists really looked at the
16 animal and the cell data, and it's there. They
17 concluded the animal data was sufficient, the cell
18 studies were strong, the epidemiology was very limited,
19 Class 2A, probable carcinogen.

20 IARC doesn't stand alone. We saw this
21 article. It has over 100 authors on it, including
22 Dr. De Roos, Dr. Jameson, Dr. Lynch, people who actually
23 authored the very AHS article that Monsanto is so proud
24 of.

25 And they concluded that the most appropriate

1 and scientifically based evaluation of the cancers
2 reported in humans and laboratory animals, as well as
3 supportive mechanistic data, is that glyphosate is a
4 probable human carcinogen. They all agree.

5 Do you know how hard it is to get 100
6 world-renowned scientists to all agree on something? I
7 mean, their job is to fight with each other about
8 scientific issues. But when it came to what IARC did
9 and the data they looked at, unanimous, hundreds of
10 scientists stand with IARC. And these aren't just
11 random scientists; these are the best in the world.

12 The California EPA respects IARC so much that
13 they just follow it. IARC determines it, they determine
14 it causes cancer. Note they don't do that for the EPA.

15 So that leads us to the regulatory agencies,
16 right? We know OSHA follows IARC. We know California
17 EPA follows IARC. We know ATSDR has a review pending,
18 but they're IARC-like. Within the EPA, there's the
19 office of research and development and the office of
20 pesticide programs.

21 You heard testimony that the office of
22 research and development actually agrees with IARC; they
23 don't agree with the OPP. Within the OPP, they have the
24 scientific advisory panel. Well, the scientific
25 advisory panel unanimously agreed the EPA was not

1 following its own guidelines.

2 So what is this outlier? This is within the
3 U.S. regulator framework. What is the outlier? And
4 that gets us to the bottom line. There's two aspects to
5 this story when it comes to the EPA.

6 There's bad science, and there's regulatory
7 capture. The bad science is obvious. We've heard it,
8 right? The EPA didn't test anything. They evaluated
9 glyphosate, not Roundup. They've actually relied and
10 cited fraudulent IBT data. We know they missed a bunch
11 of tumors, tumors that Dr. Portier found. For some
12 reason, they just didn't see them. For example, the
13 lymphomas in every mouse study. We know they didn't
14 follow their own guidelines.

15 Dr. Portier told us that. That hasn't been
16 refuted. And, for what it's worth, he of all people
17 would know because he actually wrote the EPA guidelines
18 for how to evaluate cancer. He says they didn't follow
19 it.

20 The scientific advisory panel -- the
21 independent scientists that reviewed EPA's work --
22 doesn't agree with them. And, frankly, EPA has a bad
23 track record. I mean, it just does. How many things
24 have been cancer causers that it took a lawsuit to find
25 the truth of?

1 **MR. ISMAIL:** Objection, Your Honor.

2 **THE COURT:** Yes.

3 **MR. WISNER:** Okay.

4 The other aspect is regulatory capture. We
5 know who wrote the EPA draft. His name is Jess Rowland.
6 He's the leader of the CARC committee, the office of
7 pesticide program. This is a picture of him that I
8 actually showed you. It's from the IARC meeting. He
9 was the EPA observer at IARC.

10 And we have some interesting emails. So
11 during -- right after the IARC classification, Daniel
12 Jenkins, he was a Monsanto EPA -- regulators.

13 He says, "So Jess called me out of the blue
14 this morning." This is Jess Rowland.

15 "We have enough to sustain our conclusions; we
16 don't need genotox or epi." So this is before IARC has
17 published its manuscript. We don't actually know what
18 IARC has done. And he's telling Monsanto, "Hey, we're
19 good. We don't need anything."

20 Then he adds, "The only thing is the Cheminova
21 study with the sarcoma in mice. We have that study now,
22 and its conclusions are irrelevant because of the dose
23 limit."

24 I mean, let's think about what's happening
25 here. The EPA scientist is calling Monsanto and asking

1 them, "Hey, how do I ignore a study? How do I get rid
2 of these tumor findings? Because the dose limit is left
3 out, is that what I should do?"

4 I mean, just think about that. It's supposed
5 to be an independent organization that's looking out for
6 our interests, and they're going to Monsanto about how
7 to disregard tumors. He goes, "I'm the chair of the
8 CARC, and my folks are running this process of
9 glyphosate in regulatory review. I have called a CARC
10 meeting in June."

11 Now, at this time, by the way, there was
12 another agency as part of the CDC, the ATSDR, that was
13 doing an evaluation of glyphosate. ATSDR, by the way,
14 Dr. Portier used to run it, just to give you some
15 context.

16 And they were doing an evaluation. And there
17 was some concern that it would come out and that it
18 would contradict what the EPA or what Monsanto wanted.
19 And so they have a conversation about it.

20 "Also, Jess called to ask for a contact name
21 at ATSDR. I passed on Jesslyn's email. He told me no
22 coordination is going on, and he wanted to establish
23 some, saying, "If I can kill this, I should get a
24 medal.'"

25 The concept of regulatory capture is when our

1 regulators no longer work for us but work for the
2 industry they're regulating. And, here, Jess Rowland,
3 the very guy who wrote the EPA report, is saying, "I'm
4 going to go kill another agency's investigation. And if
5 I do it, give me a medal."

6 He's literally working for Monsanto here and
7 bragging about it.

8 "However, don't get your hopes up. I doubt
9 EPA and Jess can kill this, but it's good to know that
10 they are going to actually make the effort now to
11 coordinate due to our pressing and their shared concern
12 that ATSDR is consistent in its conclusions with EPA."

13 We have another email. This is also from Dan
14 Jenkins. And he says, "Listen, I actually spoke to the
15 ATS director and branch chief" -- I'm sorry. They spoke
16 with Jack Housenger, who was the director of the OPP
17 within EPA, to put their report on hold until after EPA
18 releases its preliminary risk assessment.

19 So what's happening here is the director of
20 OPP is calling Monsanto, saying, "Hey, guys. I'm on it.
21 I'm going to kill it. I'm going to stop it from going
22 forward." And he's reporting about that conversation.

23 "ATSDR has cited a GAO audit report in arguing
24 that their process is distinguishable and not
25 duplicative. They look at different end points and told

1 the EPA they don't 'make a call on cancer,' but I think
2 we should continue to be cautious."

3 In response to this email, Dr. Heydens says,
4 "Distinguishable and not duplicative? Seriously? And I
5 will believe the not 'making a call on cancer' part when
6 I see it. Anyway, at least they know they are being
7 watched."

8 So they've actually now co-opted the EPA to
9 let the ATSDR know that they're being watched. And
10 Daniel Jenkins says, "I completely agree," talks about
11 his conversation with Mary Manibusan.

12 "She said that they tried to execute several
13 memoranda of understanding but were unsuccessful. She
14 describes ATSDR as being conservative and IARC-like in
15 this regard, as well as the fact that they are
16 hazard-based. Makes me very nervous. But I asked Jack
17 whether or not he was worried about ATSDR coming out
18 with something different, and he said he wasn't. I
19 think he was being genuine."

20 If you have any doubts whether or not EPA
21 scientists were essentially working for Monsanto and
22 essentially doing their bidding, this email seals the
23 deal. Dan Jenkins is writing to his colleagues, and
24 he's talking about Jess Rowland at the EPA.

25 And he says, "Jess will be retiring from the

1 EPA in five or six months and could be useful as we move
2 forward with ongoing glyphosate defense."

3 How the heck do they know he's retiring? And
4 how do they know he will be useful for glyphosate
5 defense? Good grief.

6 This is an agency that's not working for the
7 public; this is an agency that's working for Monsanto.
8 And the very scientists who wrote the very report that
9 Monsanto has repeatedly read and talked about throughout
10 this trial, Monsanto is going to hire the guy, when he
11 retires, of course.

12 The EPA -- by the way, all of that evidence
13 about Jess Rowland and his involvement, it's undisputed.
14 They haven't offered a single piece of testimony,
15 evidence to refute any of that because they can't
16 challenge it. It just is what it is.

17 But despite that, in a minute Mr. Ismail is
18 going to come up here and he's going to tell you "Follow
19 the EPA. They know everything." It's not true. The
20 EPA makes mistakes, and it made a mistake here.

21 The illustration of this point couldn't be
22 clearer in the recent article by Zhang. Dr. Zhang and
23 her colleagues from University of Berkeley and
24 elsewhere, they were specifically on the scientific
25 advisory panel looking at glyphosate for the EPA. And

1 after they participated on that panel, on their own dime
2 and on their own initiative, decided to go out and do a
3 whole exhaustive analysis, their own meta-analysis.

4 And what Dr. Zhang and her colleagues did is
5 they did exactly what we've been saying you need to do.
6 They not only looked at the association, but they looked
7 at the dose response analysis and seeing what the
8 highest levels are we seeing a risk.

9 And they also looked at everything. They also
10 looked at everything. They looked at animal and
11 mechanistic studies, which provide supporting evidence
12 for the carcinogenic potential of glyphosate-based
13 herbicides. They documented further support from
14 studies of malignant lymphoma incidence in mice treated
15 with pure glyphosate, as well as potential links between
16 glyphosate-based herbicide exposure and
17 immunosuppression, endocrine disruption, and genetic
18 alterations that are commonly associated with NHL.

19 They did the full analysis. They looked at
20 all the data. And when they did, the link is compelling
21 that it causes non-Hodgkin's lymphoma.

22 I mean, these are independent scientists that
23 the EPA attacked. And after their analysis of the EPA
24 report, they went out and published this on their own
25 dime and on their own steam.

1 Good grief. How many independent scientists
2 need to tell the EPA they're making a mistake before
3 they wise up? I don't know.

4 Simple fact is, ladies and gentlemen, when it
5 comes to the evidence, it's pretty overwhelming.

6 So the question: Is Roundup a likely
7 substantial contributor to NHL? Is it something that
8 can contribute to NHL in humans? And have we proven
9 that it's more likely than not a substance contributor?
10 That's the question.

11 I think the evidence in front of us is pretty
12 clear: Yeah, more likely than not, it does
13 substantially contribute to the development of NHL.

14 **THE COURT:** Counsel, 12:30 hard stop.

15 **MR. WISNER:** Yes. These go faster.

16 **THE COURT:** I just wanted to let you know for
17 planning purposes.

18 **MR. WISNER:** Thank you, Your Honor.

19 The next stop is was Roundup a substantial
20 contributor, specifically to their lymphoma? Right? We
21 talked about does it cause lymphoma generally. Let's
22 talk about the Pilliods.

23 So the Pilliods, you know, are a husband and
24 wife. I did like a time scale here of, you know, most
25 recent to latest. And, you know, the Pilliods are

1 unique in that they both have lymphoma. And there's
2 been discussion about spousal concordance and what is
3 the likelihood that one spouse would get lymphoma if the
4 other one has it.

5 But I think it all kind of misses the point.
6 Right? I think Dr. Nabhan was trying to explain that,
7 is that the likelihood of any random person getting
8 lymphoma is 1 in 50; and for DLBCL, it's, like, 1 in
9 150. And that's assuming no risk factors, just a
10 general overall risk background rate.

11 So assuming that there was no risk factors or
12 anything, we can actually calculate the probability that
13 two genetically unrelated people would actually get
14 lymphoma. And we got around 1 in 15, 1 in 20,000.
15 Right?

16 But the point of that statistic is not to
17 suggest that that applies to the Pilliods. The point of
18 that statistic is to say that it's pretty rare for two
19 genetically unrelated people to get the same DLBCL.
20 It's weird. It's really unheard of. Well, it's not
21 unheard of, but it's rare, very rare.

22 And when you see that, what you should do is
23 you should look for environmental exposures, common
24 exposures that help explain why they both got the
25 cancer. And they both have a very big common exposure:

1 30 years of Roundup exposure.

2 Because I'm running out of time, I'm going to
3 go through this very quickly.

4 We know that their exposure was considerable.
5 They spray at four different properties. We kind of
6 blazed through this during the trial, and I kind of
7 wanted to walk you through the properties.

8 This is the main one. This is their primary
9 residence in Livermore. That's the driveway, and that's
10 the walkway up to the door and if you look back from the
11 door. As you can see, all these different -- and this
12 is all in evidence; so you can look through them if you
13 want to. But as you see all these different areas of
14 wood chips and around the walls and the concrete, and
15 the same thing applies to the driveway and on the right
16 side and the left side. There's actually a lot of sort
17 of landscaping on the property that they had to spray
18 frequently, every week, in fact.

19 Look at the backyard. This is one angle of
20 the backyard. This is the first angle. You can see it
21 goes all the way back down here. There's quite a bit of
22 property back here. This is the pool area. They
23 actually had multiple trees that they took down that
24 they had to spray with a lot of glyphosate around them,
25 and they had to spray the rocks around them everywhere.

1 This is moving into the property, here's
2 the -- that was their hot tub and gazebo. And then
3 there are these raised garden platform things. You can
4 see them right here on the property.

5 And then, obviously, it goes all the way down
6 here, and you can see it goes back. There were a lot of
7 different areas, and they would spray everywhere. So
8 there actually was quite a bit of maintenance on this
9 property, and that's why they sprayed so much at that
10 property.

11 This Stabulis one for two years was really
12 rural. I mean, this is like wild. There are all these
13 pictures of this Stabulis property. You can see there's
14 lots of growth. You have to spray everywhere they
15 wanted to put stuff.

16 So, for example, they wanted to put this fence
17 up. So they had to spray all along the entire front
18 area of the property. And then, of course, the fence
19 actually went up all the way up the three acres back up
20 that hill. So they had to spray around there. You can
21 actually see where they've been spraying. It's all dead
22 around the posts. Right? That's where they've been
23 spraying lots of Roundup to kill the area so they could
24 put stuff in.

25 It's pretty rural. They'd actually go camping

1 out there. And they had that for two years, and they
2 sprayed a considerable amount there.

3 They also sprayed at the Gabor property. This
4 was also pretty rural, didn't have any running water.
5 There was a house, but largely had lots of sort of
6 shrubbery in an area where they didn't have to spray to
7 keep it in any way maintained.

8 We also have two years at the Hartvickson Lane
9 property. Again, this had a lot of property. It's hard
10 to see in these pictures, unfortunately. The aerial
11 picture is probably better. You can see all the
12 different land. There's an area for parking up front
13 where they had to spray to keep that growth down.

14 Anyway, so they sprayed a lot. I don't think
15 there's any real dispute about that. We did some
16 calculations with our experts, and Mrs. Pilliod went
17 through it in detail. But, overall, they had over 1500
18 days of exposure. That's 1500 days of spraying Roundup,
19 getting on their skin, and it going into their bones.
20 That's what we know happens to glyphosate when it makes
21 contact with their skin.

22 Mrs. Pilliod didn't wear any protective
23 clothing. She wore shorts, flip-flops. And they did
24 that because the label didn't tell them to. If the
25 label had told them to, they would have worn it.

1 So this gets back to the jury instruction, a
2 substantial contributing factor. It doesn't have to be
3 the only cause of the harm.

4 The reason why I stress that is because I
5 think that's where this confusion kind of emerged with
6 our differential that we put up.

7 So we really shouldn't have called the middle
8 one "risk factors." We should have said "potential
9 contributors." So what we did here is we listed all the
10 risk factors, things that, you know, are known risk
11 factors.

12 And then we said, okay, for Mr. and
13 Mrs. Pilliod -- Dr. Weisenburger and Dr. Nabhan both did
14 this -- which of those risk factors could have
15 potentially contributed to the development of NHL?
16 Right? What could have actually contributed to it?

17 And then after you go through the
18 contributors, which one of them was actually a
19 substantial -- or how many of them are substantial
20 contributors? Right? That's how the analysis goes.

21 Age, sex, race -- no one thinks they
22 potentially contributed to their cancer. Their experts
23 didn't testify to it; ours didn't. And the reason for
24 that is because all the epi studies, for example, for
25 pesticides, they adjust for age. So what they're

1 showing us is the elevated risk for people regardless of
2 their age. So it's the additional risk on top of being
3 older.

4 Mrs. Pilliod did not have any family history
5 of lymphoma or hematologic cancers whatsoever. She had
6 a significant history of Roundup use, 33 years of it,
7 over 1500 days of exposure. She was slightly
8 overweight. As you can see Mrs. Pilliod here in the
9 picture, she's not extremely obese by any measure, but
10 she was slightly overweight.

11 The reason why that's a potential contributor
12 as opposed to age, sex, or race is because it's actually
13 something that affects your immune system. So if you're
14 slightly overweight, you have a weaker immune system.
15 Just how it works.

16 She didn't have any viral infections that
17 would have in any way explained any of this. She didn't
18 have any bacterial infections. She didn't have AIDS.
19 She didn't have any immunosuppression.

20 She did have Hashimoto's disease in the 1980s,
21 and that's a potential contributor. But you have to
22 realize, that was in the 1980s, and she didn't get
23 cancer until 2015. So in the 1980s, it was handled.
24 Her thyroid problem was resolved. So maybe it
25 contributed, but if it did, it very slightly contributed

1 in any way to cancer.

2 And the studies on it are very unclear. We
3 heard from Dr. Nabhan and Dr. Weisenburger that it's
4 really an elevated rate of lymphoma in the thyroid,
5 which kind of makes sense. Right? Because it's a
6 thyroid condition.

7 But considering how late it was and how mixed
8 the data is, it's not clear that it's a substantial
9 contributor, but we'll put it on as a potential
10 contributor. We have to be honest.

11 She had no evidence of chronic inflammation,
12 and she didn't have any solvent use.

13 So you're left with these three potential
14 contributors. You have to ask yourself which ones are
15 substantial? Which ones really helped drive the
16 lymphoma?

17 And when you start comparing what's left over,
18 it's pretty clear. 1500 days of exposure over 33 years
19 to Roundup versus being slightly overweight or having
20 Hashimoto's in the '80s? I mean, there's no question.
21 Roundup was a substantial contributor here. Was
22 obesity? Probably not. Was Hashimoto's? Probably not.

23 But here's the thing. Let's say I'm wrong.
24 Let's say Hashimoto's did substantially contribute to
25 her lymphoma. We still win because the jury instruction

1 says it doesn't have to be the only cause; it just has
2 to be a cause. And if Roundup was a cause, then it was
3 a substantial contributor to her cancer.

4 Mr. Pilliod, a little more complicated. The
5 first three are the same, obviously. He also doesn't
6 have any family history of hematologic cancer. He also
7 has significant Roundup use, actually more than
8 Mrs. Pilliod because he sprayed it more frequently. His
9 was over 28 years before he was diagnosed.

10 He was apparently overweight in some capacity,
11 but -- obviously, weight is kind of a complicated thing
12 because it depends at what point in your life. I mean,
13 here we have a picture of him in his 50s, and he's not
14 overweight. Right? So I think it depends when you
15 consider that he was considered obese, which is one of
16 the reasons why obesity is a difficult risk factor to
17 really contribute to cancer.

18 He didn't have any viral infections that are
19 relevant to lymphoma. He did have that meningitis, but
20 that isn't related to lymphoma; that's a brain
21 infection. No one's testified it has anything to do
22 with lymphoma.

23 He didn't have any bacterial infections,
24 didn't have any immunodeficiency syndromes or anything
25 like AIDS.

1 There was evidence that he had
2 immunosuppression. According to Dr. Levine, she said
3 that his skin cancers, the brain infections, and his
4 cold sores indicated he had a severely compromised
5 immune system.

6 There's a couple problems with that. The
7 first problem is, well, none of his doctors ever said
8 that was the case. Right? None of the people that
9 actually treated him said he had a compromised immune
10 system. And all the tests they did on his immune system
11 showed it was above average, actually.

12 The second problem is this idea that his skin
13 cancers indicated a weakened immune system kind of
14 misses the elephant in the room. Right? He has fair
15 skin and red hair, and he spends a crapload of time in
16 the sun. Whether it's spraying Roundup, sailing, doing
17 yard work, he spent a lot of time in the sun. Okay.
18 You'd expect that person to get skin cancers.

19 But each one was a sun spot that got removed.
20 It wasn't like a metastatic cancer that was affecting
21 his life or got into his bones or any of that stuff.
22 And he kept getting them before he got lymphoma and
23 after he got lymphoma.

24 To suggest that that means he had some sort of
25 depreciated immune system, I think, is a little bit of a

1 stretch. And the brain infections, well, that's just
2 because he doesn't have the proper antivirals. Once he
3 got on the proper antivirals 15 years ago, 14 years ago,
4 he didn't have any more infections.

5 That's when they finally realized it was the
6 HSV that was in the brain. They actually figured that
7 one. That was the last time he had an infection. Since
8 then, he hasn't had one.

9 And, you know, I think when you talk about a
10 weakened immune system, when he got cancer and his body
11 was dosed with really intense chemotherapy, right,
12 really aggressive immunosuppression -- I mean, we're
13 talking about poison that's meant to kill cancer; that's
14 what it is -- he didn't have any problems. He didn't
15 have any brain infections, didn't have any outbreaks,
16 didn't have any of the things that you would expect to
17 have from someone who is teetering with an
18 immunodeficiency problem.

19 Frankly, Dr. Levine's entire theory is highly
20 suspect. I don't think the fact he had cold sores five
21 times means he has a suppressed immune system.
22 Mr. Pilliod lived an active life. He was sailing. At
23 the age of 50, he sailed by himself to Hawaii. This
24 isn't some frail man who was constantly getting sick.
25 So I think you have to put that in context.

1 Autoimmune disease -- okay. The other thing
2 is no one ever considered -- let's say Levine's right.
3 He is immunocompromised; he has immunosuppression. No
4 one ever asked was it caused by Roundup?

5 We know from the Zhang article -- we saw this
6 just the other day -- they specifically studied this
7 issue of immunosuppression. And it says several studies
8 suggest that glyphosate alters the gut microbiome and
9 cytokine and IL2 production. These changes could impact
10 the immune system, promote chronic inflammation, and
11 contribute to the susceptibility of invading pathogens,
12 which is h. pylori.

13 Dr. Levine, she said she disagreed with it;
14 she didn't explain why. And I have to ask. I mean,
15 maybe he did have a suppressed immune system. I don't
16 think he did, but maybe he did. Maybe it was caused by
17 the Roundup. There's evidence of it right here. They
18 bring it up again in the context of that.

19 So there's a possibility that the Roundup was
20 itself causing the alleged immunosuppression. The
21 evidence isn't even clear that it's there. If you agree
22 that it's there, maybe it's even the Roundup. We don't
23 know.

24 They brought up this autoimmune disease,
25 ulcerative colitis. Ladies and gentlemen, it doesn't

1 make any sense. Ulcerative colitis is a chronic,
2 lifetime condition. It has constant flare-ups, and it
3 causes problems all the time. Ironically, it causes
4 problems in the very areas that apparently there is
5 immunosuppression and inflammation caused by Roundup,
6 according to Dr. Zhang. But put that issue aside for a
7 second. It's a chronic condition. It doesn't go away.

8 In 2006, he had a biopsy, and it showed in one
9 of the biopsies consistent with ulcerative colitis.
10 Okay. That's pretty strong evidence that he had it. He
11 testified that he got treatment for two months, and he's
12 never had a single symptom since. That's pretty weird.
13 That was, like, 2006. We're talking, like, 13 years
14 ago. Right?

15 But he also got a biopsy in 2010. And when
16 they looked at the very colon, no chronic colitis.
17 Possible quiescent colitis -- that means it's not
18 ulcerative colitis. That means that it's a passing
19 thing; it's not ulcerative colitis. No malignancy
20 evident.

21 Where did it go? If he had this chronic
22 condition, how does it disappear four years later and he
23 never has a single symptom of it later?

24 I mean, the simple fact is the evidence is
25 very, very weak that he actually suffered from this

1 debilitating ulcerative colitis condition. They got one
2 biopsy, and then repeatedly puts it in his medical
3 records "ulcerative colitis" because of that biopsy.
4 But he didn't have any symptoms. He wasn't being
5 treated with any strong immunosuppressant drugs like
6 they usually do.

7 That's the other thing. When that does
8 increase the risk of lymphoma, it's because it's
9 suppressing the immune system with the drugs, which he
10 didn't get. He got an enema with a steroid for two
11 months. That was it. He was not on long-term
12 immunosuppressant drugs.

13 There's no evidence of chronic inflammation,
14 no evidence of solvent use.

15 So when you put all this together, our experts
16 have testified that a substantial contributing factor
17 was Roundup and these others were not likely substantial
18 contributing factors.

19 But I want to point out one more thing. At
20 the very end of Dr. Levine's testimony, Mr. Miller asked
21 her, "So you're saying he was more susceptible to
22 getting lymphoma because of his weakened immune system?"
23 She said, "Yeah."

24 What does that mean? That means -- let's
25 assume Dr. Levine is right, that he has some deviant,

1 suppressed, incapable immune system. Then he's the last
2 person in the world that should be spraying Roundup.
3 He, of all the people in the world, needs to be warned
4 because he's more at risk than other people.

5 So if he even has a suppressed immune system,
6 that doesn't mean Roundup didn't cause it; in fact, it
7 means it probably was worse for him. And when you look
8 at what happened to him, it's pretty clear.

9 Okay. Ten minutes. Here we go.

10 We heard Dr. Raj testify. And Dr. Raj, she --
11 we actually asked her about this differential etiology.
12 Dr. Levine laughed at us and said, "Oh, ho. That's
13 silly. Nobody ever talks about differential etiology.
14 It's unheard of in medicine."

15 Well, according to the one doctor that
16 actually treated both of them, it's common in medical
17 school.

18 "Q. Have you ever heard of
19 something called a differential
20 etiology?

21 "A. Of course.

22 "Q. What is that?

23 "A. Meaning that's something basic
24 in medical school we go through.

25 "Q. And with regards to

1 Mrs. Pilliod, do you recall if you ever
2 engaged in a differential etiology about
3 her cancer?

4 "A. I think -- we -- after -- yes.
5 So I treated the husband. So when the
6 wife came back with the same diagnosis,
7 lymphoma, they did ask me the question
8 because they lived in the same household
9 and they've been diagnosed with similar
10 cancers. And they asked me, 'Well, what
11 could be the cause of?' So we have a
12 conversation about possible
13 environmental exposures and toxins.

14 "Q. Okay. In terms of your
15 conversation with Mrs. Pilliod, can you
16 tell me a little about that conversation
17 and when it occurred?

18 "A. I don't know the exact date or
19 time. I remember seeing both of them
20 and they asked about what could have
21 caused their cancer. We talked about
22 possible environmental exposures, given
23 both of them live in the same household
24 and both of them being diagnosed with a
25 similar type of cancer back to back.

1 They were concerned.

2 "And I did tell them there is a
3 possibility that chemical exposure could
4 cause lymphoma, and they brought up this
5 exposure to some pesticides. And they
6 asked me, 'Do you think that could have
7 caused the cancer?'

8 "I said it's possible, but I can't
9 tell that for 100 percent sure. That
10 was my response to them. I did tell
11 them it was possible.

12 "Q. And when you said that
13 chemicals may increase the risk of
14 lymphoma, what chemicals are you talking
15 about?

16 "A. Any chemical exposure on a
17 consistent basis that could cause
18 cell -- you know, DNA damage."

19 So if you have something that causes DNA
20 damage on a consistent basis, of course it can cause
21 cancer. It's common sense to Dr. Raj. And when they
22 brought it up, she said, yeah, it was possible.

23 Now, she didn't do a full differential. She
24 didn't go through the science about Roundup. She didn't
25 look at the studies like our experts did. But she did

1 have the privilege of treating both of these fine
2 people, and she said, yeah, possible environmental
3 exposure.

4 So is it more likely than not that Roundup was
5 a substantial contributor to their cancer? The answer
6 is yes. No question. It played a role. And it was a
7 substantial role.

8 What are the Pilliods' damages?

9 Your Honor, I'm not going to be done by 12:30.
10 I need about 15 more minutes. I need to go through the
11 verdict form as well. We started very late today.

12 **THE COURT:** Can you hang on for 15 more
13 minutes? I'd like to finish plaintiffs' closing before
14 we stop.

15 20 of, hard stop.

16 **MR. WISNER:** I really appreciate it, Your
17 Honor. Thank you.

18 What are the Pilliods' damages? One of the
19 things you're going to have to decide is how much
20 compensation to give the Pilliods because of the cancer
21 that was substantially contributed to the Roundup that
22 Monsanto sold.

23 The judge has already instructed you. There's
24 two different areas of damages. There's economic
25 damages, and there's noneconomic damages. Economic are

1 medical expenses, cost of prescription drugs, lost
2 income, things like that. Noneconomic are the more
3 intangible things, like mental suffering, anxiety,
4 depression, grief, humiliation, the stuff that's really
5 hard to put your finger on.

6 Let's start with Mrs. Pilliod. Mrs. Pilliod's
7 life has fundamentally changed since she was diagnosed
8 with cancer. As you know, she had a brain tumor appear
9 twice in her brain. And, as we know, that brain tumor
10 caused permanent brain damage.

11 It has fundamentally affected the very way she
12 lives her life. She cannot walk without help. She's
13 constantly dizzy. She lives her life forgetting things,
14 falling over all the time. She has depression, probably
15 associated with her brain damage.

16 And, frankly, there's a high probability that
17 her cancer will come back, particularly if she ever
18 stops taking chemo drugs. Chemo drugs have pretty
19 serious side effects, and she has to take them for the
20 rest of her life.

21 This is the facts. And when she got cancer
22 twice, she went through some of the most intense types
23 of therapy because, frankly, everyone thought she was
24 going to die. Remember Mr. Pilliod told us that, when
25 she got diagnosed, the doctor said, "Do you even want to

1 fight this? You're not going to live." God bless them,
2 they fought, and she's living. It's unbelievable.
3 Twice. Some good doctors, some serious treatment, but
4 it's had -- it's devastated her body.

5 So when you come up with the damages, you have
6 to think about all of those issues. For economic
7 damages, these are pretty straightforward. Okay?

8 Her past economic damages, that's the amount
9 of money she's lost from medical expenses personally.
10 That's all stipulated to. That will be on the verdict
11 form. It will be set there. You don't have to write
12 that down. That's stipulated to.

13 Future damages, that was the question about
14 prescription drugs. Now, as of right now, she's never
15 had to pay for her chemo drugs. And we're really hoping
16 in the future that stays that way. But if it doesn't
17 and she has to pay out of pocket, you heard testimony
18 from Mr. Mills that the future damages would be
19 \$2,957,710.

20 Now, you have a weird thing that you have to
21 figure out. You have to decide what is the likelihood
22 that she will have to pay for those drugs in the future
23 or not. The worst-case scenario is that. The best-case
24 scenario is zero. So you have to decide what you think
25 is a reasonable amount.

1 But what we do know is that is the worst-case
2 scenario. That's the minimum amount she will need if
3 all things go south and she has to start paying for the
4 drug to save her life for the rest of her life.

5 Now, for noneconomic damages, that's way more
6 complicated. How do you quantify pain and suffering?
7 How do you quantify depression? How do you quantify
8 waking up every day and you go, gosh, I have a headache,
9 and you're worried the cancer is back?

10 That's what she lives with every day for her
11 life. How do you live with the fact that you can't walk
12 without help, that she's constantly being humiliated in
13 public when she's wobbling around trying to get to a
14 chair? How do you quantify that? It's almost
15 impossible to do.

16 So here is what I propose: Her life
17 expectancy is 13 years, and she was diagnosed with
18 cancer 2 years ago. So the past part of time is 4
19 years, and the future is 13. A fair amount to
20 compensate her for her permanent brain damage is
21 \$2 million per year, both historically and moving
22 forward.

23 So that adds up to \$8 million for past
24 noneconomic damages and \$26 million for the 13 years she
25 has left. That's a fair amount to reasonably compensate

1 Mrs. Pilliod for the shell of a life she has to live for
2 the rest of her life.

3 Let's talk about Mr. Pilliod. This guy is the
4 proverbial -- I don't want to say a bad word, but like
5 the bad -- he's really impressive. This guy sailed
6 across the Pacific by himself. He motorcycled around
7 Europe. He was a cryptographer in the Army. The dude
8 is really cool. He's been very active. He's been very
9 engaged in the things that he wants to do.

10 As you see him now, he's not that person
11 anymore. What happened to him is he got Stage IV
12 systemic cancer. There were literally lesions and
13 tumors in every inch of his body, essentially. These
14 black spots, with the exception of the middle one right
15 here, with the exception of that one, everything -- with
16 the exception of that one, everything else is a tumor.

17 He had it everywhere, which kind of makes
18 sense. We know Roundup goes to the bones. We know that
19 it's a systemic dose. And he had the most exposure.
20 And, frankly, it's kind of a miracle that he's alive
21 today, but they gave him really intense chemotherapy.
22 They shocked his system with poison, and they killed it.
23 And he kicked it.

24 I mean, that, by the way, is really strong
25 evidence that the guy does not have a compromised immune

1 system. He didn't have any complications from that at
2 all, yet he has a weakened immune system and he hasn't
3 had cancer anymore for more than seven years? I mean,
4 it's kind of unbelievable.

5 But it's scarred his bones. It's caused
6 permanent bone damage. And, frankly, he had plenty of
7 neurological problems before his cancer. We all agree
8 with that. He had seizures. He had developing
9 neurological problems.

10 But after he went through chemo, it has gotten
11 worse. There is no question about that. He's having a
12 more difficult time functioning. He just can't do the
13 things he used to love. This guy is not sailing by
14 himself single-handed to Hawaii. He's not even sailing
15 at all.

16 He lives every day with the fear of the cancer
17 coming back and the anxiety that is attendant to that.
18 I don't think there's any question that his damages are
19 less in number. I don't think that's in question. He
20 does not have permanent brain damage. His past economic
21 damages are \$47,296. Again, this is stipulated to. It
22 will be on the verdict form. You don't have to worry
23 about it.

24 We are not seeking any future economic
25 damages. Yeah, sure, he'll have to do cancer tests

1 every six months for the rest of his life, but we're not
2 going to ask for that. Okay?

3 For him, it's about noneconomic damages. And
4 I'm going to use the same metric as we did with Alberta
5 but a slightly different one. So he was diagnosed in
6 2011. So he's had -- he survived cancer for eight
7 years. And, by the way, in that year before his cancer,
8 he was in extreme pain, truly extreme pain. Remember,
9 they gave him narcotics. He had a tumor the size of a
10 baseball in his hip.

11 He was in extreme pain. That's what
12 ultimately got him into the hospital and he got
13 treatment for the cancer is because he was in so much
14 pain.

15 But the way I want to calculate is it's been
16 eight years since his diagnosis, and he has a life
17 expectancy of 10 more years. So that's 18 total years
18 both past and present. And while he doesn't have brain
19 damage, he does have the ramifications of having
20 survived cancer and how it's affected his life. So an
21 appropriate measure for him is half, a million dollars.

22 What that means, his past economic damages for
23 the last eight years would be 8 million. And for the
24 next ten years, it's 10 million. That would be a total
25 of \$18 million for noneconomic damages. That's a fair

1 amount to compensate Mr. Pilliod for a cancer he never
2 should have gotten.

3 This is the summary of the data. This is what
4 we're asking for.

5 So those are the damages. The last big issue
6 is punitive damages. The instructions are very clear.
7 The purpose of the punitive damages are to punish a
8 wrongdoer for conduct that harmed the plaintiff and to
9 discourage similar conduct in the future.

10 The purpose of punitive damages is to punish.
11 It's to deter. It's to change a company's conduct. It
12 is not about compensating the Pilliods. So if you're in
13 that deliberation room and you're talking about punitive
14 damages numbers, and you're thinking, well, that's too
15 much money to give to anybody, it's not about them.
16 Okay?

17 They've already been compensated with the
18 compensatory damages. This is about punishing Monsanto.
19 This is about making a difference in that company. And
20 when you do that, you have to consider their financial
21 status. Okay?

22 A person at -- this is malice. A person has a
23 knowing disregard when he or she is aware of the
24 probable dangerous consequences of his or her conduct
25 and deliberately fails to avoid those consequences.

1 "In view of Monsanto's financial condition,
2 what amount is necessary to" -- this is straight from
3 the jury instructions -- "to punish and discourage
4 future wrongful conduct? Any award you impose may not
5 exceed Monsanto's ability to pay."

6 Well, we had a stipulation about their net
7 worth. They have \$7.8 billion net worth in 2018. Their
8 sales of agricultural products in one year was
9 3.7 billion, and their profit was 892 million.

10 In 2017 alone, Monsanto spent \$1.6 billion on
11 research and development. We heard from Dr. Jameson
12 that the cost of doing a single rodent study on Roundup
13 would cost about \$4 million. They had a \$1.6 billion
14 budget, and they've never bothered to do one study.
15 It's outrageous.

16 That said, I thought very hard about how much
17 I thought Monsanto needed to pay to sufficiently punish
18 this company for 45 years of lying to the public, of
19 misleading scientists, freedom to operate, ghostwriting,
20 all of that. What is an amount that's proper
21 punishment?

22 And my initial thought was about one year's
23 profit, 892 million. And that's a number -- that's a
24 lot of money. But that's just their profit for one
25 year. But then I thought about it. That's profit.

1 That's after expenses, after Donna Farmer and
2 Dr. Heydens and Dr. Goldstein have gotten their payouts
3 and their bonuses. This is money in their pocket after
4 the fraud.

5 And when you're talking about punishment, that
6 doesn't seem really appropriate. Just imagine somebody
7 engaged in some really bad, fraudulent conduct, they
8 stole money from someone. And your punishment was give
9 the money back. That's not really a punishment. That
10 \$892 million is the beginning of justice; it's not the
11 end of it.

12 So when you decide what the proper amount for
13 punitive damages is, that's the starting point, and you
14 go north of that. And they have specifically talked
15 about it. Exhibit 516 --

16 **THE COURT:** Five minutes, Counsel.

17 **MR. WISNER:** Yes.

18 They have here an email specifically about
19 IARC, and they're talking about the findings by IARC
20 were like giving a taxable analysis. And they're
21 talking about conversations with EPA before the IARC
22 assessment.

23 Michael Koch says, "We heard precisely what we
24 didn't want to hear about impact, huh?"

25 And then Bill Heydens, the guy that we see

1 time and time again in every document, "I'm sitting here
2 pondering this as we speak. The \$1 billion question is
3 how it could impact, actually cause them to reopen their
4 cancer review and do their own in-depth epidemiology
5 evaluation. This is getting huge after what we heard on
6 our call this morning."

7 In his own words, this is a billion-dollar
8 question. Dr. Koch, I agree. I'm not saying you have
9 to award a billion dollars in punitive damages, but it's
10 something you should seriously consider.

11 This isn't about giving a billion dollars to
12 the Pilliods. They don't need it. They don't care
13 about that. That's what the compensatory damages are
14 for. The billion dollars is not about giving money to
15 the Pilliods; it's about taking money away from
16 Monsanto.

17 They can afford it, and they need to pay.
18 Because that's the kind of number that sends a message
19 to every single boardroom, every single stockholder,
20 every single person in Monsanto that can make a decision
21 about the future. That is a number that changes things.

22 The last issue is how do you deliver a
23 verdict? I have three minutes to go through the verdict
24 form. I'm going to do it very quickly.

25 This is the verdict form that you're going to

1 get back in the jury room. And this is, for example,
2 Mrs. Pilliod's. And there's a series of questions that
3 you have to answer yes or no to. And it says exactly
4 what to do for each question.

5 The short answer is, if you want Mrs. Pilliod
6 to win, you say yes to everything and no to 5. Okay?
7 Don't say yes to 5 because she loses if you say yes to
8 5. Sorry. Don't say yes to 5 because she loses if you
9 say yes to 5. So yes to everything, no to 5. Okay?

10 And these questions are all pretty
11 straightforward.

12 "Did Roundup fail to perform as safely as an
13 ordinary consumer would have expected?" Of course it
14 did. It causes cancer.

15 "Was the design a substantial factor?" Sure
16 it was. We have both POEA, both the actual way that the
17 stuff is distributed, the mechanism itself, and the fact
18 that it causes cancer. So yes.

19 Claim of strict liability. "Did Roundup have
20 potential risks that were known or knowable in light of
21 the scientific and medical knowledge that was generally
22 accepted in the scientific community at the time of
23 their manufacture, distribution, or sale?"

24 Sure as heck it did. Their own study showed
25 it causes tumors in animals. And their own

1 genotoxicologists in 2000 said it was genotoxic. Of
2 course they knew. Yes.

3 "Did the risks of Roundup present a
4 substantial danger to persons when used in accordance
5 with widespread recognized practices?" Well, yeah. If
6 it causes cancer, that's a yes.

7 "Would an ordinary consumer recognize the
8 potential risks?" Here is Number 5. No. If you read
9 the label, you would think it doesn't cause cancer
10 because it doesn't say anything about it causing cancer.
11 You can't tell just from reading the label or looking at
12 the product that it causes cancer, so no.

13 "Did Monsanto fail to adequately warn of the
14 potential risks?" Yes, they didn't warn. So that's a
15 yes.

16 "Was the lack of sufficient warnings a
17 substantial factor in causing harm?" Yes. We've
18 already discussed that.

19 Negligence. "Was Monsanto negligent in
20 designing, manufacturing, or supplying Roundup?" Yes.
21 They had repeated opportunities to warn, to conduct
22 studies. They didn't do any of it.

23 The definition of negligence is in your jury
24 instructions. It's failure to take action or to take
25 conduct to protect people against reasonable harm.

1 "Was Monsanto's negligence a substantial
2 factor?" Yes.

3 "Did Monsanto know or reasonably should have
4 known that Roundup was dangerous or was likely to be
5 dangerous?" Yes.

6 "Did Monsanto know or should it reasonably
7 have known that users would not realize the danger?"
8 Yes.

9 "Did Monsanto fail to adequately warn of the
10 danger?" Yes.

11 "Would a reasonable manufacturer or
12 distributor, under the same or similar circumstances,
13 have warned of the danger or instructed on the safe
14 use?" Yes.

15 "Was Monsanto's failure to warn a substantial
16 factor in causing harm to Mrs. Pilliod?" Yes.

17 And then right here you have the claim of
18 damages. There's an asterisk right here. It
19 specifically specifies the amount that should go right
20 here.

21 Future economic damages, those are the
22 2.9 million for prescription drugs that we talked about.

23 Noneconomic, that would be the -- past
24 noneconomic, that would be the 8 million. Future would
25 be the 26 million.

1 And then down here, did they act with malice?
2 I think we covered that in spades. The answer is yes.

3 And then you put the punitive damage award
4 numbers here. And, obviously, the presiding juror will
5 sign and date it at the end. That's how you do the
6 verdict.

7 Ladies and gentlemen, thank you so much for
8 your time. You guys have been amazing. I couldn't have
9 asked for a better jury to listen to all this evidence
10 and hear me yak for so long.

11 I've carried this burden of Mr. and
12 Mrs. Pilliod's case for quite some time now. Now it's
13 your turn. Let's do right by them. Let's hold them
14 accountable.

15 Thank you.

16 **THE COURT:** Ladies and gentlemen, plaintiffs
17 have concluded their closing arguments. We're going to
18 resume with the defendants' closing arguments when lunch
19 is over with. We're going to have one hour for lunch.

20 So I'm asking the audience and members of the
21 gallery, please don't talk about what you've heard when
22 you see the jurors. You're not in quite the same
23 admonition, but this is a small building. So when you
24 see any of the jurors, please stop talking.

25 I can't enforce the same restrictions, but I

1 think it's only fair and equitable that you just not
2 expose the jurors to any of your conversation about
3 anything that you have heard. I appreciate that.

4 So, ladies and gentlemen, you have one hour.
5 We will be resuming at 20 of the hour. Thank you for
6 your time.

7 (The following proceedings were heard out of
8 the presence of the jury:)

9 **MR. EVANS:** I just needed to correct, there
10 were a couple of additional pages that were not tabbed
11 correctly.

12 Just for the record, 4873, pages 2, 12 to 34,
13 126 to 144; Exhibit 4939, page 2, page 8 to 101; 4941,
14 page 2, 130 to -- 2, 130 to 145; Exhibit 5192, page 3, 8
15 through 16; and Exhibit 4136, page 3, 10 through 16.

16 We just had failed to put the cover pages on,
17 which are those additional pages. Thank you.

18 **THE COURT:** Okay.

19 (Recess taken from 12:43 p.m. to 1:57 p.m.)

20 (The following proceedings were heard out of
21 the presence of the jury:)

22 **THE COURT:** All right. Mr. Evans?

23 **MR. EVANS:** Yes, Your Honor. There were
24 several statements and arguments that were improper
25 misstatements of the law and not supported by the

1 evidence.

2 First, counsel argued that what the label says
3 is Monsanto's choice, deciding to warn is their choice
4 and their choice alone. It's a false statement of the
5 law. It's also inconsistent with their motion in
6 limine.

7 This all comes back to the preemption
8 argument. But we also had a motion in limine that they
9 filed saying that we could not produce evidence about
10 the EPA's assessment of the labeling and the EPA's role
11 in the labeling. You can't keep evidence out and then
12 argue the opposite, which is, gee, the EPA had no role
13 here. This was Monsanto's choice, Monsanto alone.

14 That's completely improper, unfair, and
15 prejudicial.

16 Second, again, violation of motion in limine,
17 it's in the food. It's all over the place. We
18 specifically were -- they said this several times. It's
19 not -- they're not supposed to make arguments about it
20 being in the food, being ubiquitous. It's completely
21 improper, prejudicial, violation of a motion in limine.
22 They did it before. This is repeat violations.

23 "EPA, EFSA has blood on their hands." You
24 sustained that objection.

25 "EPA has a bad track record on many substances

1 that have been -- that cause cancer that does not --
2 that cancer doesn't take to -- for a lawsuit to
3 uncover." Again, the objection was sustained, but
4 completely improper, prejudicial.

5 Argument, "As of right now, she has never had
6 to pay for chemo drugs. If it doesn't stay that way and
7 she has to pay out of pocket, you have to decide."

8 No evidence about her losing her -- ending
9 that drug, zero evidence about that. This is complete
10 argument, speculation, improper, not supported by the
11 facts.

12 "Did anyone ever ask whether a compromised
13 immune system was caused by Roundup? Roundup alters the
14 gut biome." Again, motion in limine, we were not
15 supposed to talk about the effect upon the gut biome.
16 If they thought the door was open, they needed to raise
17 that issue with Your Honor because we were not talking
18 about the effect on gut bacteria or the gut biome.

19 With respect to punitive damages, the argument
20 was "This has nothing to do with the Pilliods." Again,
21 the jury instruction -- that's asking for jury
22 nullification. That's asking for them to ignore the
23 law.

24 The law in your instruction says, "Is there a
25 reasonable relationship between the amount of punitive

1 damages and Mr. Pilliod and Mrs. Pilliod's harm or
2 between the amount of punitive damages and potential
3 harm to Mr. Pilliod and Mrs. Pilliod?"

4 You can't say this has nothing to do with the
5 Pilliods when the instruction says it has to have a
6 reasonable relationship to the harm.

7 So, for those reasons, Your Honor, we believe
8 highly prejudicial, all those arguments, improper
9 misstatements of the law. And, in fact, we believe a
10 mistrial is required.

11 **MR. WISNER:** Your Honor, I'll respond to
12 those.

13 First, regarding the labeling issue, I
14 actually was specifically referencing evidence that was
15 admitted by the Court related to Jim Guard's testimony,
16 where he specifically talked about Monsanto's ability to
17 control the content of the labels. So that's clearly in
18 the evidence, and that was shown to the jury.

19 Regarding the issue of food and all over the
20 place, I was simply talking about in the very slight
21 context of epidemiological literature and having truly
22 unexposed individuals. This issue of misclassification
23 was explored both through Dr. Ritz as well as
24 Dr. Portier.

25 That it's in the food, that has come into

1 evidence in repeated places as well as in multiple
2 documents. I didn't suggest that they were at risk
3 because it was in their food. I didn't suggest that.
4 And that was what the motion in limine was about. And I
5 didn't try to scare the jury into thinking that they
6 were going to get cancer because glyphosate is in their
7 food. I didn't say that at all.

8 So that's what the spirit of the motion in
9 limine was, and I simply argued what was in evidence.

10 Regarding the EPA and EFSA having a bad track
11 record, there was evidence that they have a bad track
12 record. That actually came in through Dr. Benbrook.
13 Obviously, when I went too far arguing, Your Honor
14 sustained objections on that, and I stopped. So I
15 didn't go beyond any objection that was sustained. I
16 don't think I went beyond what the evidence supports.

17 Regarding the gut microbiome issue, this was
18 specifically shown and read to the jury. The very
19 paragraph that I showed them was shown to the jury
20 during Dr. Levine's cross-examination without objection,
21 and it was specifically involving the issue of
22 immunosuppression, which is a direct rebuttal to her
23 argument that he was, in fact, immunosuppressed. By
24 "he," Mr. Pilliod, I mean.

25 Finally, the reference to the punitive damages

1 having nothing to do with the Pilliods, that's a
2 misstatement of what I said. What I said is it has
3 nothing to do with their compensation. And that's
4 correct. In fact, they argued for a jury instruction
5 saying that punitive damages don't relate to
6 compensation. And I was arguing that point.

7 I said, when it comes to their compensation --
8 I think the next sentence is, "They're going to be
9 compensated with a compensatory award. Punitive damages
10 is about punishing Monsanto." That is all correct.
11 There's no jury nullification happening there.

12 We respectfully oppose any mistrial, Your
13 Honor.

14 **THE COURT:** Thank you, Mr. Evans, but I don't
15 think it rises to the level of mistrial, so I'm going to
16 deny your motion for a mistrial.

17 **MR. EVANS:** We'd request a curative
18 instruction specifically with respect to the EPA. The
19 EPA has to approve labels and is involved in the
20 labeling process.

21 **THE COURT:** Denied. I actually agree that
22 what was essentially -- what was said was that,
23 ultimately, how Monsanto chose to present the product
24 was up to them. And that, yes, there's an approval
25 process in place, but it was their decision -- to

1 include or not to include specific language was their
2 choice. I think that's what was implicated and what was
3 said.

4 So the motions are denied. And we're going to
5 move on to closing argument now, unless there's
6 something else I need to address.

7 **MR. EVANS:** No, Your Honor.

8 **THE COURT:** All right.

9 Mr. Ismail, you may proceed with your closing.

10 **MR. WISNER:** I think we need a jury here. We
11 have no objection to them doing the closing argument.

12 **THE COURT:** I apologize, Mr. Ismail.

13
14 (The following proceedings were heard in the
15 presence of the jury:)

16 **THE COURT:** All right. Mr. Ismail, you may
17 proceed with closing argument. And you can pick your
18 break time when you find a natural break in your
19 argument this afternoon.

20 **MR. ISMAIL:** Thank you, Your Honor.

21 **CLOSING ARGUMENT**

22 **MR. ISMAIL:** Good afternoon, everyone. So
23 Mr. Wisner this morning and this afternoon spoke with
24 you for nearly three hours. And I don't think it comes
25 as a surprise to any of you that we disagree with nearly

1 every single thing that he said. But there's one thing
2 that he said that we do agree with, and that is that
3 this case is really about Mr. Pilliod and Mrs. Pilliod.
4 But after that fundamental agreement, you saw during
5 this trial and you're going to see today that we have
6 very different approaches to discussing that central
7 issue and what this case really is about.

8 Mr. Wisner spent most of his time with you
9 talking about evidence and issues that do not actually
10 go to those central issues and will not go to anything
11 that you're going to have to decide on your verdict
12 form.

13 This afternoon I'm going to talk with you
14 about the evidence that you've seen in this trial that
15 we believe shows that the plaintiffs have failed to meet
16 their burden of proof on the central issues in this case
17 that Judge Smith is going to ask you to decide in your
18 deliberations.

19 So, as you've heard, you're going to get a
20 verdict form to guide your deliberations in this case,
21 and those are the very specific questions the Court is
22 going to ask you to decide.

23 You saw sort of a glimpse of it today. It's
24 kind of an intimidating form. There's a lot of
25 questions on it. But I'm going to talk with you today

1 and sort of group those questions by topic, and one of
2 the issues that is central to every claim the plaintiffs
3 are bringing here.

4 The verdict form is broken down by different
5 legal theories, and you saw reference to that today.
6 But with respect to every legal theory the plaintiffs
7 are bringing, there is one central issue, and that is
8 did the plaintiffs prove that Roundup was a substantial
9 factor in causing Mr. Pilliod or Mrs. Pilliod's
10 non-Hodgkin's lymphoma?

11 You're going to have to answer that question
12 as to each of their claims. And the Court is going to
13 give you a definition of "cause." And you heard it
14 earlier today, and you actually have a copy. And this
15 is the definition: "A substantial factor in causing
16 harm is a factor that a reasonable person would consider
17 to have contributed to the harm. It must be more than a
18 remote or trivial factor. It does not have to be the
19 only cause of the harm."

20 Well, here's the part that Mr. Wisner didn't
21 want you to focus on: "Conduct is not a substantial
22 factor in causing harm if the same harm would have
23 occurred without that conduct."

24 Which means it is the plaintiffs' burden to
25 prove that Mr. Pilliod and Mrs. Pilliod would not have

1 developed non-Hodgkin's lymphoma had they not sprayed
2 Roundup. That is their burden. And one of the things
3 that's going to guide your deliberation here is the
4 burden of proof. And we've all heard that phrase in one
5 form or another, but it's usually not how we go about
6 deciding things in ordinary life.

7 And Mr. Wisner gave you one way to visualize
8 this. He gave you a picture of a scale. And that's an
9 interesting approach but one that does not really fairly
10 capture the burden of proof. It is not the case that
11 the plaintiffs started this trial with the evidence
12 50-50 and all they have to do is find one thing, a
13 feather, to put on their side of the scale. That's not
14 how the burden of proof works. He even told you that,
15 if you get to the point of saying "I think so; I'm not
16 sure, but I think so," then the burden of proof has been
17 met. We all say "I think" in ordinary conversation, but
18 never does that mean to communicate a burden of proof.

19 This visual more fairly captures what the
20 plaintiffs' burden really is. What it means is that you
21 have to consider all the evidence. And, after doing so,
22 something that is possibly true doesn't meet the burden
23 of proof. A fact can be credible and still far short of
24 meeting the plaintiffs' burden of proof. And, instead,
25 after considering all the evidence, they have to

1 persuade you, of all the key facts, it is more likely
2 true than not.

3 They may have presented some evidence that you
4 think -- that you credit and it moves them some way up
5 this hill, but then we presented evidence on
6 cross-examination and through our witnesses that moves
7 it back down.

8 So let's now talk about the evidence with this
9 burden of proof in mind. And we're going to begin by
10 talking about that central issue that is common to each
11 and every one of their claims, and that is the
12 plaintiffs having to prove that Roundup was a
13 substantial factor for each plaintiff's non-Hodgkin's
14 lymphoma.

15 Now, last time I had a chance to speak with
16 you directly, I stood here, and I challenged plaintiffs'
17 counsel to present to you specific medical evidence for
18 the plaintiffs to support their claim that Roundup had
19 anything to do with their non-Hodgkin's lymphoma.

20 I suggested that you have a right to demand
21 such evidence. And here we are, five weeks later.
22 You've seen 17 days of testimony, 16 live witnesses, 11
23 by video. The trial transcript, you'll be happy to
24 hear, is over 5,000 pages long. There have been more
25 than 300 exhibits that have been shown to you. And here

1 we are at the end of the case, and they didn't show you
2 a single medical record, document, anything specifically
3 linking these two plaintiffs' NHL to Roundup.

4 So you've seen this before. We had
5 Dr. Weisenburger on the stand, and I actually went
6 through each and every one of these questions with him,
7 and these were his answers.

8 I asked him if there's any pathology report,
9 stain, tissue of any sort for either plaintiff that
10 suggest Roundup played a role, and he said no.

11 Any feature of the tumor -- he's a
12 pathologist -- anything to suggest Roundup played a
13 role? No for both.

14 Biomarker, genetic testing, medical test. Is
15 there a single medical record of the thousands of
16 medical records that have been produced for these two
17 plaintiffs that suggest Roundup was the cause? The
18 answer for each and every one is no.

19 And so what did you see instead? You saw from
20 the plaintiffs their witnesses, Dr. Weisenburger and
21 Dr. Nabhan. You saw them cross some risk factors off a
22 board and circle Roundup or put an arrow by it and say
23 "I've figured it out."

24 That's not evidence. At best, that's an
25 exercise in speculative process of elimination, but it's

1 nothing specific as to these two individuals.

2 So let's talk about the evidence that is
3 specific to these two plaintiffs. And let's begin with
4 Mr. Pilliod. And we're going to talk a lot this
5 afternoon about risk factors for developing
6 non-Hodgkin's lymphoma. But one thing I think everyone
7 agrees is one of the major risk factors is having a
8 weakened immune system.

9 Question to Dr. Weisenburger:

10 "Q. Now an additional factor that
11 you agreed was a potential cause of NHL
12 was having a weakened immune system,
13 true?

14 "A. Yes. I mean, people who have
15 increased risk for non-Hodgkin's
16 lymphoma usually have a markedly
17 weakened immune system. So we don't
18 really know for the elderly people, as
19 their immune system begins to weaken a
20 bit, whether that increases their risk
21 or not. Some people think it does, but
22 we really don't know."

23 People who have increased risk of
24 non-Hodgkin's lymphoma usually have a markedly weakened
25 immune system.

1 Dr. Nabhan:

2 "Q. A weakened immune system can be
3 a risk for non-Hodgkin's lymphoma?

4 "A. Right. It depends on what
5 weakens the immune system."

6 So we know it's a risk factor. So the
7 question is what's the evidence relating to Mr. Pilliod?

8 Well, one thing you heard was that, way back
9 in 1978, Mr. Pilliod first developed meningitis.
10 Actually he had meningoencephalitis, which means he had
11 an infection both of the lining of the brain and of the
12 brain tissue itself, so severe that he was in a coma for
13 a month.

14 His doctors didn't know what was causing it.
15 But then it came back again and again and again. And
16 eventually, in 2007, his doctors discovered the cause of
17 these serious brain infections, one of which put him in
18 a coma for a month, other episodes putting him in
19 intensive care a week at a time, was the simple herpes
20 virus, a virus so common, nearly everyone has been
21 exposed to it. For the vast majority of the population,
22 no clinical systems. Some people may develop a cold
23 sore.

24 Mr. Wisner told you today that, just because
25 Mr. Pilliod developed cold sores every now and then,

1 that's not evidence of a weakened immune system.

2 He had the cold sore virus, but in his case it
3 caused a brain infection that put him in a coma for a
4 month. And the reason is because this virus, his immune
5 system was not able to protect him from again and again
6 and again.

7 So severe that, in 2007, he was placed on
8 high-dose antiviral treatment to try to protect him from
9 the cold sore virus so it didn't cause meningitis again.

10 What else do we know? Well, we know
11 Mr. Pilliod has had skin cancer. It's not just that
12 he's had skin cancer; he's had repeated skin cancers.
13 Different types -- squamous cell, basal cell, melanoma.
14 You heard today characterizations. He called these
15 sunspots. These are skin cancers that were surgically
16 removed, examined under the microscope, and determined
17 to be malignant cancers.

18 And it's not just that he had it once or twice
19 or 10 times or 20 times; he had 22 different skin
20 cancers.

21 And we showed you the evidence, how greatly
22 that increases your risk of non-Hodgkin's lymphoma.
23 It's not the case that skin cancer turns into lymphoma.
24 We're not saying that it causes the lymphoma to occur.
25 But patients who have repeat skin cancers are at greatly

1 increased risk of developing NHL, doubling of the risk,
2 two and a half times the risk.

3 They say he was light-skinned and had red
4 hair. True. But does that explain how someone gets
5 skin cancer the first time in his 20s and then gets skin
6 cancer 21 more times throughout his life?

7 On Monday Mr. Miller asked Dr. Levine, "Well,
8 isn't it the case that, any time someone develops
9 cancer, their immune system fails in some way?" It's
10 true.

11 So what does this tell you when he's had 22
12 skin cancers? That his immune system failed that many
13 times over that many years.

14 What else do we know? We know he has the
15 human papilloma virus. Dr. Levine told you on Monday
16 this is a virus his body should have been able to clear
17 decades ago. But into his 60s, he's still getting
18 outbreaks, clinical symptoms, the genital warts you
19 heard about, three different times, with this very
20 simple common virus.

21 We showed you the studies. Patients who have
22 this type of clinical symptoms and conditions, tripling
23 of the risk for developing non-Hodgkin's lymphoma.

24 And why? What's the common link? We showed
25 you the papers. You've seen them during the course of

1 this trial.

2 Skin cancer. Several plausible biological
3 mechanisms that explain the association between
4 nonmelanoma skin cancer and risk of other cancers,
5 including immunosuppression, chronic inflammation,
6 variation in DNA repair efficiency.

7 The HPV as an indicator of immune impairment,
8 underlying immunodeficiency.

9 These are markers. These are signs of a
10 weakened immune system and an abnormally functioning
11 immune system that placed him at greatly increased risk
12 for non-Hodgkin's lymphoma.

13 We also know he has ulcerative colitis. We've
14 kind of been riding a roller coaster here in this trial
15 on this issue. Beginning of the trial, they were
16 fussing whether he had ulcerative colitis. We showed
17 the biopsy, which proves he had inflammatory bowel
18 disease, chronic inflammation. He was treated with
19 hydrocortisone, which is immune therapy to try to
20 suppress his immune system because, in his case, his
21 immune system was attacking his colon. You heard
22 Dr. Levine describe this on Monday.

23 Then we had Dr. Nabhan on the stand. He told
24 you, yeah, he had ulcerative colitis. He agreed.
25 Biopsy proved it. Dr. Nabhan even told you the records

1 show clinical symptoms consistent with the disease. I
2 guess today we're back to denying he had an autoimmune
3 disease.

4 So you put this picture together, and what do
5 you see?

6 This is the complete picture of all the
7 indications, the markers of a weakened immune system.
8 Twenty-two different skin cancers of different types,
9 different places in the body; five brain infections from
10 the simple herpes virus; three different times of --
11 he's had the outbreak of HPV virus; and he has an
12 autoimmune disease called ulcerative colitis. This is
13 the complete picture.

14 How anyone can stand here and deny this
15 evidence of a weakened immune system is just incredible.

16 On Monday you saw the most credentialed
17 witness that you've seen in this entire trial,
18 Dr. Alexandra Levine, someone he just called a hired
19 gun. And it's not just because Dr. Levine -- I'm saying
20 not -- that she's the most qualified not just because
21 she's been an oncologist for 50 years treating thousands
22 of patients with non-Hodgkin's lymphoma. It's not just
23 because she has over a thousand publications in the
24 peer-reviewed medical literature. It's not just because
25 President Clinton appointed her to be the chair of a

1 scientific commission. It's not just because she's been
2 adviser to six different countries' ministries of
3 health.

4 It's because all of that experience indicates
5 she is the most qualified person to comment about the
6 link between the immune system and the risk for
7 non-Hodgkin's lymphoma. This is what she has been
8 studying for four decades.

9 When she first recognized the link between HIV
10 and AIDS and non-Hodgkin's lymphoma in the 1980s, the
11 common link was the weakened immune system. This is
12 what she teaches, treats, researches. When Dr. Levine
13 tells you "In 50 years I have never seen a medical
14 history like this," that tells you something.

15 Now, we heard today for the first time the
16 idea that, well, maybe it's Roundup that impacted his
17 immune system.

18 Who was their witness who said that? Try to
19 think back. There wasn't one. There wasn't -- it was
20 Mr. Wisner, not Dr. Wisner, Mr. Wisner telling you today
21 maybe it was the immune system.

22 Did you hear this from Dr. Nabhan?
23 Dr. Weisenburger? Dr. Portier? Any of his witness
24 sponsor this theory that he floats for the first time in
25 closing argument? No.

1 And, in any event, it's not true. This is
2 from 2017, from the EPA.

3 "The toxicology database for glyphosate does
4 not reveal any evidence of immunotoxicity." Full stop.
5 Everything else he was talking about, the speculative
6 theory for which not a single witness in the case
7 supported what he told you, there's no evidence of it.

8 Now, this is something Dr. Levine told you on
9 Monday, and I think it's pretty important. She talked a
10 lot about the importance of mutations in the development
11 of cancer, and I think you've heard this from a number
12 of witnesses, that the critical step in development of
13 cancer are mutations.

14 Then we asked her:

15 "Q. You described this necessary
16 step in cancer development is the
17 important mutation.

18 "Do you need to have exposure to
19 something like a chemical for one of
20 these driver mutations to occur?

21 "No, not at all."

22 And the reason is is because our bodies are
23 constantly replicating -- the cells, the lymphocytes --
24 and you can have an error in that copy process that has
25 resulted in one of these driver mutations. There's no

1 reason whatsoever that non-Hodgkin's lymphoma has to
2 develop from exposure to something, and, indeed, that's
3 rarely the case.

4 So given all that, how do we characterize
5 Mr. Pilliod's non-Hodgkin's lymphoma? This was
6 Dr. Levine's bottom-line conclusion. First of all, she
7 was asked:

8 "Q. What percent of diffuse large
9 B-cell lymphoma patients have idiopathic
10 cancers?

11 "A. Around 90 percent. Some people
12 say as high as 95.

13 "Q. So how would you describe or
14 characterize his non-Hodgkin's lymphoma
15 from a cause perspective?

16 "A. From a cause perspective, it's
17 really idiopathic. I can't say what
18 caused his driver mutation. I don't
19 know what caused his driver mutation.
20 And so in that case it's idiopathic.
21 And I know that's sometimes an
22 unsatisfactory answer. I'm sure it is
23 for patients too. But cancer is
24 different from other diseases. 90
25 percent of the cancers, there is no

1 known cause. And Mr. Pilliod is
2 squarely within that 90 percent.

3 "Q. But, nevertheless, did he have
4 risk factors for developing that
5 condition?

6 "A. He had a massive risk factor
7 for developing lymphoma, and that was
8 his immunodeficiency and abnormal immune
9 system."

10 Their burden is to prove that Mr. Pilliod
11 would not have developed non-Hodgkin's lymphoma had he
12 never been exposed to Roundup. You have 32 different
13 reasons for why they have failed that burden of proof:
14 twenty-two skin cancers, five brain infections from
15 the herpes virus, three bouts of HPV infections that
16 result in genital warts, ulcerative colitis, other risk
17 factors including a family history of cancer. His age
18 put him at a greatly increased risk.

19 Let's talk about Mrs. Pilliod. She too has
20 risk factor for developing cancer.

21 Now, we talked a lot in this trial about the
22 difference between risk factors and causes. And what
23 you heard from the witnesses was there's a very small
24 list of known causes of non-Hodgkin's lymphoma -- HIV,
25 hepatitis, other viruses and bacterias. That's the list

1 of known causes. Everything else -- that's the 10
2 percent or the 15 percent. Everything else, it's
3 idiopathic. And that applies to Mrs. Pilliod as well.

4 But she does have risk factors. Age. We saw
5 this article when Dr. Bello was here. She was in the
6 age group that had a tenfold increased risk. She had
7 Hashimoto's disease.

8 I think the suggestion today was she had it in
9 the '80s. It's not a curable condition; it's an
10 autoimmune disease. To this day, she's receiving
11 treatment for that thyroid condition. It didn't go
12 away. She still has it, and did in 2015.

13 Smoking, which we'll talk about in a minute.
14 She had a previous cancer, two bouts of bladder cancer,
15 both before the non-Hodgkin's lymphoma. Family history
16 of cancer. And, of course, what Mr. Wisner talked
17 about, BMI and body habitus, all independent risk
18 factors for development of non-Hodgkin's lymphoma.

19 Given this, what do we know? What can we say
20 about the cause of Mrs. Pilliod's specific cancer?
21 Because remember what you heard about non-Hodgkin's
22 lymphoma. It's an umbrella term. 60 different subtypes
23 of NHL. She had central nervous system lymphoma.

24 What do we know about central nervous system
25 lymphoma and the cause? We can go to the book. This is

1 from the World Health Organization.

2 And after I went through this book with
3 Dr. Bello last week, Mr. Wisner got up on
4 cross-examination and he pointed out, "Well, this was
5 published by IARC in 2017."

6 Okay. Let's see what IARC says are the known
7 causes of central nervous system lymphoma two years
8 after they had their meeting on glyphosate.

9 "Primary diffuse large B-cell lymphoma of the
10 central nervous system. Etiology, cause. In
11 immunocompetent individuals, the etiological" -- that
12 means causal -- so the causal factors are unknown.

13 This is IARC in 2017 describing Mrs. Pilliod's
14 type of non-Hodgkin's lymphoma. They don't say
15 pesticides are a cause. They don't say Roundup or
16 glyphosate is a cause. They say, if you're
17 immunocompetent, the causal factors are unknown, which
18 is exactly what you heard from Dr. Bello.

19 Now, once again, you heard some suggestions
20 today denigrating Dr. Bello. She is a specialist in
21 central nervous system lymphoma. She sees nearly every
22 case of central nervous system lymphoma that comes into
23 the door at Moffitt Cancer Center, which is one of the
24 largest dedicated cancer hospitals in the country.
25 She's a researcher developing new treatments for this

1 condition.

2 "Q. So your discussion with the
3 jury thus far, what is the percentage of
4 central nervous system lymphomas that
5 are properly characterized as unknown or
6 idiopathic?

7 "A. 80 to 90 percent.

8 "Q. And so when you describe and
9 characterize Mrs. Pilliod's cancer as
10 being idiopathic, does she fall in that
11 80 to 90 percent of unknown causes that
12 you see clinically every week?

13 "A. Yes, I would say so."

14 And, again, what are the small number of known
15 causes of central nervous system lymphoma? It's not
16 Roundup or glyphosate. IARC didn't say that just two
17 years ago. It's things like HIV, other things that
18 impact -- other viruses, like hepatitis and other things
19 you learned about during this trial.

20 We asked Dr. Nabhan:

21 "Q. You told Mr. Miller yesterday
22 that, in the majority of cases, doctors
23 do not know why their patients develop
24 non-Hodgkin's lymphoma, true?

25 "A. True.

1 "Q. When I say you, collectively,
2 doctors do not know why it is in those
3 patients, when we can't find a cause,
4 what it is that's causing their genetic
5 mutation on a cellular level, correct?

6 "A. That's correct.

7 "Q. But it has to be something.
8 Something is causing that patient to
9 develop a cellular mutation that results
10 in a cancer cell, true?

11 "A. Well, we both know, as we age,
12 right, as we get older, some of this
13 disruption of the cell does occur. I
14 mean, sometimes it just happens as a
15 natural process when you're 90 or 100
16 years old. Nobody lives forever. These
17 do occur, even if you're not exposed to
18 anything."

19 So idiopathic doesn't mean nothing caused it
20 or nothing happened; just that researchers and doctors
21 can't identify why those mutations occur.

22 Now, in Mrs. Pilliod's case, we also got a
23 chance to talk with her treating physicians.

24 Dr. Gupta was her first oncologist, and we
25 asked him.

1 "Q. In Mrs. Pilliod's case, was her
2 central nervous system lymphoma
3 idiopathic?

4 "A. I would have to say yes in her
5 particular case."

6 This is her treating doctor.

7 Dr. Rubenstein, who is her current oncologist:

8 "Q. You're not here to say that
9 glyphosate or Roundup was a contributing
10 factor to her PCNSL, are you?

11 "A. No."

12 Dr. Raj. There were some references to
13 Dr. Raj earlier today, treated both Mr. Pilliod and
14 Mrs. Pilliod.

15 "Q. Did you ever come to a
16 conclusion to a reasonable degree of
17 medical certainty or probability what
18 may have contributed to their lymphomas?

19 "A. There are certain cancers we
20 know for sure what is the probable cause
21 of that cancer."

22 That makes sense, right? Think about lung
23 cancer and smoking. And then she goes on to say:

24 "A. But most of the cancers, we
25 don't know the probable cause. This

1 falls into one of that."

2 Mr. Pilliod's NHL and Mrs. Pilliod's NHL.

3 "Q. So would it be fair to say that
4 you haven't formed any opinion about the
5 cause of Mrs. Pilliod's and
6 Mr. Pilliod's lymphoma?

7 "A. Correct."

8 They showed you testimony from Dr. Raj where
9 she talked about the theory that chemicals may be
10 associated with lymphomas. But even knowing that
11 reported association, what did she tell you? These
12 cancers fall into the ones for which we don't know the
13 probable cause.

14 Just like Dr. Bello told you, just like
15 Dr. Gupta told you, just like Dr. Rubenstein told you,
16 just like the WHO and IARC told you?

17 Now, with Mrs. Pilliod, we know even more, and
18 that is this.

19 You heard from several witnesses that, again,
20 the key to developing cancer are these genetic
21 mutations, and you heard about different types of
22 mutations that can occur. One of which you heard about
23 is this t(14;18) chromosomal switch, this mistake, this
24 error in the DNA. It's a particular type of DNA error.
25 And you saw this research with Dr. Weisenburger, when he

1 was on the stand. And he did this study in a group of
2 individuals who had been exposed to pesticides. In
3 fact, it's the same database you've heard so much about
4 in this trial. It's part of the NAPP.

5 And what he confirmed was that pesticides were
6 not associated with t(14;18)-negative non-Hodgkin's
7 lymphoma. What did they conclude?

8 "We conclude that insecticides, herbicides,
9 and fumigants were associated with the risk of
10 t(14;18)-positive NHL but not t(14;18)-negative NHL."

11 Here is the data that they presented. It's a
12 little small, hard to read. "Herbicide exposure,
13 whether short-term or long-term, relative risk under 1."
14 Okay.

15 So that is the research as it exists with
16 respect to this particular kind of DNA mistake. And I
17 hope you remember how all of this went down in court
18 when Dr. Weisenburger was here, because on direct
19 examination he stood here next to their board and he
20 crossed out a bunch of things and he circled Roundup or
21 pesticides on direct examination.

22 And then, on cross-examination, we showed him
23 his own research about these types of -- the specific
24 type of chromosomal error. And then we asked him:

25 "Q. In this study, individuals who

1 were exposed to herbicides for more than
2 17 years who had this -- who were
3 negative for this particular form of
4 genetic mutation, there was no increased
5 risk of NHL, true?

6 "A. That's true.

7 "Q. Can you tell the members of the
8 jury whether Mr. or Mrs. Pilliod's
9 t(14;18) was negative?

10 "A. For Mrs. Pilliod, it was
11 negative. But for Mr. Pilliod, I don't
12 think it was examined."

13 He knew. He sat here on direct examination
14 the whole time, and he knew his own study showed that
15 tumors like Mrs. Pilliod's are not associated with
16 herbicide exposure, full stop. And there's the test,
17 t(14;18)-negative.

18 By the way, I should point out that, because
19 of peculiarities in the rules of evidence, these medical
20 articles that you've seen so much during the course of
21 the trial actually don't go back with you in the jury
22 room. Maybe that's a good thing. You've seen them
23 enough.

24 But neither do the medical records. So I'm
25 just going to point that out here because some exhibits

1 do go back and some do not.

2 But I wanted to show you the biopsy report so
3 there was no misunderstanding. Mrs. Pilliod's tumor
4 type, t(14;18)-negative, is not associated with exposure
5 to herbicides like Roundup.

6 But there's more. Dr. Weisenburger's research
7 group continued to look at this issue and said, well, if
8 it's not herbicides that are associated with this type
9 of tumor, what might be?

10 So they looked at smoking. Among women who
11 had ever smoked cigarettes, there was an association
12 with risk of t(14;18)-negative NHL. The risk for
13 t(14;18)-negative NHL among women were increased, with
14 longer duration and earlier initiation. Here is their
15 data. Again, a little hard to read.

16 Ever smoker, doubling of the risk.
17 Mrs. Pilliod falls into that category. And this is in
18 the column for women who have t(14;18)-negative cancers.
19 If you start at a young age, doubling of a risk. If you
20 have a 20-plus-year pack-a-year history, doubling of the
21 risk. So you put it together.

22 "Q. Looking at these two data
23 points together, a t(14;18)-negative
24 tumor like Mrs. Pilliod, for someone who
25 had started smoking before the age of

1 20, your study found a statistically
2 significant doubling of the risk for
3 non-Hodgkin's lymphoma; isn't that
4 right, Dr. Weisenburger?

5 "A. Yes. For t(14;18)-negative
6 lymphomas, yes.

7 "Q. Like hers? Like
8 Mrs. Pilliod's?

9 "A. Yes.

10 "Q. So whereas in the last paper
11 you found no correlation with herbicide
12 use for t(14;18)-negatives, when you
13 looked at smoking, you saw a doubling of
14 the risk, correct?

15 "A. Yes."

16 Now, this is a pretty rare test to run. Most
17 tumors aren't tested for t(14;18). Mr. Pilliod's
18 wasn't. So we don't know what his tumor type was. None
19 of the other studies that you've heard so much about,
20 Eriksson or McDuffie, looked at this particular type of
21 tumor that Mrs. Pilliod had. But when you have the DNA
22 test and the DNA test points all in one direction, you
23 can't ignore it.

24 If you want to use Mr. Wisner's scales, on the
25 one hand you have Dr. Weisenburger's own research

1 showing that her tumor type is not associated with
2 pesticide exposure but is associated with smoking, and
3 on the other, none.

4 They didn't show you a study to suggest this
5 data is wrong. Dr. Weisenburger certainly didn't. You
6 think, if there was a study anywhere on the globe that
7 would suggest that this data is incorrect, they would
8 have showed it to you?

9 None of their other witnesses told you that
10 this is incorrect. At most, Dr. Weisenburger said this
11 is preliminary. Okay. Fine. But we asked him,
12 "Doctor, you cited to this very research in March of
13 2019, right before you took the stand."

14 He said, "Well, yes, I did."

15 There's nothing to suggest that this is no
16 longer good data or good research. And, in fact, it
17 remains unrebutted. And it cannot be ignored.

18 So when you ask yourself did the plaintiffs
19 meet their burden of proof in trying to establish that
20 Roundup was a substantial factor in Mrs. Pilliod's NHL,
21 that she would not have developed non-Hodgkin's lymphoma
22 had she never been exposed to Roundup, you should look
23 to the DNA testing, which shows that they cannot and did
24 not meet their burden of proof.

25 Now, I want to talk a little bit further about

1 Dr. Weisenburger and Dr. Nabhan. And I want to talk
2 about what it is that they do when they weren't
3 testifying here and what they do when they're outside of
4 the courtroom.

5 Now, you saw these boards a couple of times.
6 And surprisingly, today, the plaintiffs changed their
7 theory. They brought out brand-new boards for you and
8 said, well, we may have done this wrong when we had
9 Dr. Weisenburger and Dr. Nabhan here. This is how they
10 actually presented the evidence using these boards.

11 And, today, he used something completely
12 different. He didn't have a witness go through the
13 boards that he went with you during closing argument.
14 This is the way they actually did it on the stand. But
15 you recall, they put up these boards. And he crossed
16 out some things. And this is Dr. Weisenburger, and he
17 wrote "Roundup" over there and said it was a substantial
18 factor.

19 But the interesting thing is this. We asked
20 him:

21 "Q. Over the last 40 years, you
22 have not done, outside of a courtroom,
23 what you did with the jury today in
24 doing a differential etiology for
25 non-Hodgkin's lymphoma, true?

1 "A. It is true, because it's not
2 part of my practice. It's not what
3 pathologists are expected to do."

4 Yeah, we agree. This is not what pathologists
5 do. They don't determine the cause of an individual
6 patient's cancer. So why in the world did they ask him
7 to do it here? In his entire professional life,
8 Dr. Weisenburger never has done what they asked him to
9 do here in determining the cause of an individual
10 patient's NHL.

11 Dr. Nabhan, for his part -- you remember
12 Dr. Nabhan, a formerly practicing physician now turned
13 business executive. He's an executive vice president at
14 a healthcare consulting company, gave up practicing
15 three years ago. We asked him:

16 "Q. When you were treating
17 patients, you never actually diagnosed a
18 particular case of non-Hodgkin's
19 lymphoma as being induced by Roundup,
20 true?

21 "A. That is true, because, again --
22 that's the same question you asked, but,
23 okay, yes.

24 "Q. I was asking specifically in
25 your clinical practice. So the answer

1 to my question is yes?

2 "A. Yes.

3 "Q. You never told a patient, 'Your
4 NHL was caused by Roundup,' true?

5 "A. That is true."

6 Neither Dr. Weisenburger or Dr. Nabhan has
7 ever, outside of a courtroom, diagnosed a patient's NHL
8 as being caused by exposure to Roundup.

9 Now, it's not just that. We asked them all
10 these questions. We know they've never diagnosed one in
11 their professional life. They've never told their
12 colleagues back at their hospital that Roundup causes
13 non-Hodgkin's lymphoma. They've never taught this to
14 medical students that Roundup causes NHL. They've never
15 presented at a conference that Roundup causes NHL.
16 That's the truth of the matter as to these two witnesses
17 outside of court.

18 This issue of spousal concordance, I suspect,
19 like many of you, probably have never heard of that term
20 before a couple of weeks ago. I certainly hadn't before
21 I got involved in this case. But, as you now know, it's
22 this question of whether -- is the fact that one spouse
23 has a disease -- in this case, cancer -- mean that the
24 other spouse is at an increased risk?

25 And we almost had complete agreement in this

1 trial that the fact that Mr. Pilliod and Mrs. Pilliod
2 both have some type of non-Hodgkin's lymphoma does not
3 factor into determining the cause of their disease. We
4 almost had complete agreement.

5 Dr. Ritz, their epidemiologist, never said
6 anything of the sort. Dr. Sawyer never said anything of
7 the sort. And of the four physician witnesses you heard
8 from, Dr. Levine, Dr. Bello, Dr. Weisenburger all agree
9 it doesn't impact the question of cause.

10 Dr. Weisenburger, who they paid \$90,000 to
11 testify in this case, do you think if there was
12 something to this spousal concordance, he would have
13 told you?

14 The only one was Dr. Nabhan, who said he
15 thinks it's true, even though he said, "I don't need a
16 study to prove it to be so."

17 And then you saw why. I think Mr. Wisner
18 conceded this today. There are several large studies
19 that have been done that show, yes, spouses can get the
20 same cancer. The prevalence of non-Hodgkin's lymphoma
21 is 1 in 45, 1 in 50 at the outside. That's not even
22 including risk factors.

23 And so, just by chance, you will see
24 neighbors, coworkers, friends, people living in the same
25 house develop the same condition.

1 There are what? 500,000 households in the Bay
2 Area, probably more than that. Odds of 1 in 40 of any
3 one person getting the disease. You're going to see it
4 happen. And that's what the research shows.

5 We showed you studies that had couples, both
6 of whom had the same -- both of them had non-Hodgkin's
7 lymphoma. But then what the researchers did is they
8 said is that risk of getting that any higher than the
9 background rate? And the answer consistently was no.

10 Now, it also goes to this question that
11 Mrs. Pilliod and Mr. Pilliod actually had different
12 types of non-Hodgkin's lymphoma. This was Dr. Bello:

13 "Q. You told us that CNS lymphoma
14 is clinically distinct from systemic
15 diffuse large B-cell lymphoma; is that
16 correct?

17 "A. Yes.

18 "Q. So based on this sort of
19 emerging research and the gene
20 expression of the different types of
21 cancers, the primary central nervous
22 system lymphoma, does it look and behave
23 differently at a genetic level than
24 systemic DLBCL?

25 "A. Yes, it does."

1 So if you looked under a microscope, you would
2 see diffuse large B-cells, their cancers are clinically
3 different and genetically different. This testimony is
4 unrebutted.

5 Now, you also heard -- before I get there, you
6 also heard today from Mr. Wisner this reference to
7 Dr. Raj. And then she was talking about environmental
8 exposures. You recall that testimony.

9 But it's interesting when you think about how
10 cancer doctors and researchers think about environmental
11 exposures. It's a very broad concept. And so the idea
12 that the only two things that Mr. Pilliod and
13 Mrs. Pilliod have in common is Roundup and non-Hodgkin's
14 lymphoma over the last 48 years is just not credible.

15 This is a document that was written by
16 Dr. Jameson. And I think it captures this issue well.
17 And this is something he wrote in the Report on
18 Carcinogens.

19 "In this context, environment is anything that
20 people interact with, including exposures resulting from
21 lifestyle choices, such as what we eat, drink, or smoke;
22 natural and medical radiation; including exposure to
23 sunlight; workplace exposures; drugs; socioeconomic
24 factors that affect exposures and susceptibility in
25 substances in air, water, and soil."

1 What did Mr. and Mrs. Pilliod have in common?
2 A history of smoking, a family history of cancer,
3 personal history of cancer, autoimmune diseases, in the
4 right age group for the development of non-Hodgkin's
5 lymphoma. It's just not credible to say the only thing
6 they have in common is that they sprayed Roundup.

7 Now, we're going to now turn to an issue that
8 came up during this trial. Mr. Wisner made some
9 references to it. And that is the plaintiffs' exposure
10 to Roundup.

11 And this issue came up in a couple different
12 ways. First, way back in opening statement, Mr. Wisner
13 told you he was going to prove that Mr. and Mrs. Pilliod
14 sprayed 1500 gallons of Roundup. It wasn't a slip of
15 the tongue. He had it on a slide.

16 And he said, quote, you will hear that they
17 sprayed approximately 1500 gallons of this stuff. To
18 give you context, if you have an industrial side sprayer
19 on full blast, that's 20 gallons an hour, a magnitude
20 that is greater than pretty much any person is exposed
21 to. That's what he promised you in opening statements.

22 You now know that's not true.

23 The next time you heard about this issue was
24 Dr. Weisenburger. He told you, well, it wasn't quite
25 1500; it was a thousand gallons. That too wasn't a slip

1 of the tongue. He had it on notes that he had at the
2 witness stand. I actually went and got them and showed
3 them to you on the document camera. You know that's not
4 true either.

5 We know that's not true because what did the
6 Pilliods testify to? Somewhere around 350, 390 gallons
7 over 30-plus years, not the wildly exaggerated exposures
8 that you heard in opening statements or through one of
9 their first witnesses.

10 Now, you remember where that estimate came
11 from, right? So after they filed this lawsuit,
12 Mr. Miller shipped Mrs. Pilliod and Mr. Pilliod to
13 Chicago to see Dr. Nabhan. And they met with him, and
14 Dr. Nabhan examined them. He wasn't practicing medicine
15 anymore, so he examined them at his corporate office at
16 his healthcare company.

17 And he asked them, "How much Roundup have you
18 used?" And everyone agrees they truthfully said, "We
19 don't know specifically. We think it's a lot."

20 And Dr. Nabhan said, "That's not good enough.
21 I need a number. I need an exposure number."

22 So what happened was, on the flight back from
23 Chicago, Mrs. Pilliod made these notes in which she
24 estimated how much they sprayed over the years.

25 And these notes, kind of hard to read, I think

1 they're in evidence. But at various points, she
2 estimated that she sprayed either 15 minutes or 30
3 minutes. This is at their primary residence for those
4 periods of years. And, as her notes indicate and as she
5 said in her testimony, that she pretty much stopped
6 spraying about 2012, 2013, maybe used the product a
7 little bit after that.

8 And, of course, you heard from several of the
9 witnesses about the problem of recall bias, which makes
10 perfect sense, right? We're trying to remember back 30
11 years how much of a lawn care product that you used at a
12 particular point in time. Without purchase records or
13 any documentation, that's difficult to do.

14 But this is their estimate, and that's how
15 they came up with the gallons that they used.

16 But the question then is, okay, how much of
17 that is actually related to how much they were exposed
18 to? That's how much they sprayed, but how much were
19 they actually exposed to?

20 Well, we start with this. This is Dr. Sawyer,
21 and he was cross-examined by Mr. Evans. And after they
22 went through the estimates and crediting every single
23 gallon that Mr. and Mrs. Pilliod estimated, it was that
24 "Mr. Pilliod would spray three-quarters of that. So he
25 would be spraying three cups when they were spraying at

1 their property, correct? And Mrs. Pilliod would be
2 spraying one cup, correct?"

3 "A. Correct."

4 So we have this residential use of this
5 product Roundup. Mrs. Pilliod spraying a cup of it, 15,
6 30 minutes; a couple weekends a month, Mr. Pilliod
7 spraying about three cups.

8 You saw the pictures. You saw the pictures of
9 their property where they're spraying around the
10 driveway or around the backyard.

11 And it's interesting, right? Because you
12 think about what they claimed in opening statement, and
13 then you think about, again, some of the studies that
14 you've heard throughout this case. Occupational use,
15 farmers, professional landscapers mixing huge quantities
16 of concentrate, spraying it out of the back of a truck
17 hours and hours and hours, huge fields that they're
18 spraying.

19 What we have here is a cup a couple weekends a
20 month for part of the year in Mrs. Pilliod's case, three
21 cups for Mr. Pilliod.

22 But that still doesn't answer the question of
23 what their exposure is, right? Because that's just how
24 much they sprayed at various points in time. You still
25 have to ask how often did it even get on their skin?

1 And, again, listen to the plaintiffs here. We
2 got this through Dr. Nabhan.

3 "Q. Your report says, over the 20
4 to 30 years Mr. Pilliod was estimating
5 his exposure to Roundup, that he spilled
6 Roundup one or two times. You have that
7 in your report?

8 "A. Yes. I think a couple of
9 times. I recall that.

10 "Q. And you got that information
11 either from his deposition or speaking
12 to him personally, correct?

13 "A. During our December 2018
14 interview.

15 "Q. Similarly, your report said
16 that, over the 25 to 30 years that
17 Mrs. Pilliod was spraying Roundup, she
18 remembers getting in contact with it 10
19 to 20 times.

20 "A. Yes. I recall saying that."

21 So in 30 years, Mr. Pilliod recalls spilling
22 Roundup twice. Mrs. Pilliod, over 30 years, remembers
23 getting it on her skin 10 to 20 times, once a year, once
24 every other year. That puts in context this question of
25 exposure.

1 So when they tell you the number of days that
2 they sprayed and try to relate that to some of the
3 epidemiology studies, that is wildly misleading because
4 it does not put into context residential spot use of
5 this product that is at issue in this trial.

6 But this still doesn't tell you how much they
7 were exposed to, right? Because this tells you how much
8 got on their skin. Now we have to answer the question
9 of what of that actually mattered.

10 And you heard from Dr. Phalen, the Ph.D.,
11 about how the skin is an effective barrier to Roundup.
12 Why is that? Because it's mostly water. It's 96
13 percent water, 2 percent glyphosate, 2 percent
14 surfactant, and some trace impurities, some of which you
15 can't even measure.

16 So how much of this glyphosate actually is
17 absorbed in the skin for the amount of use that is
18 claimed here?

19 Well, you heard from two witnesses in this
20 case, Dr. Phalen and Dr. Sawyer, on this crucial
21 question.

22 Dr. Phalen testified to this issue. And he
23 credited -- every single gallon the plaintiffs estimated
24 he credited -- took as true, as given. Their clothing,
25 as they were wearing it, the concentration of the

1 Roundup that they were spraying, how often they sprayed,
2 when they sprayed. He took that all as true. And he
3 calculated using standard calculations how much would
4 actually be absorbed.

5 And he did the same for Mrs. Pilliod. And his
6 number, .00048 milligrams per kilogram. 1/95,000 of a
7 teaspoon would be absorbed.

8 Mrs. Pilliod, similar calculation, crediting
9 every single thing she estimates, 1/115,000 of a
10 teaspoon.

11 Then you had Dr. Sawyer, their exposure
12 expert. Try to think back. What was the number that
13 Dr. Sawyer gave us? Nothing. On cross-examination,
14 Mr. Evans asked him, "You did a calculation -- right? --
15 where you calculate the exposure?"

16 He said yes.

17 They never asked him to give it. They never
18 asked him to contradict Dr. Phalen's number.
19 Dr. Phalen's number is literally the only evidence in
20 this case regarding the exposure of glyphosate to either
21 of these plaintiffs. It is unrebutted testimony.

22 What you heard today from Mr. Wisner was
23 something about Roundup being in the bone. And he
24 referenced this Brewster study. That is a rodent study
25 giving high doses in the feed, an oral feeding study,

1 that he's referencing there, not skin exposure.

2 You saw from Dr. Phalen the primate monkey,
3 where they put it on the skin, all gone within seven
4 days, none of it in the bone. None of this stuff about
5 the rodents with high doses in the food.

6 Now, when you try to relate how
7 infinitesimally small this exposure is, it's important
8 to consider these rodent studies that they relied so
9 heavily on.

10 You'll recall that these rodents, the mice and
11 the rat studies, are given massive quantities of
12 glyphosate in their food day after day after day after
13 day, a thousand milligrams per kilogram or even more.

14 How does that dose of glyphosate compare to
15 the rodent studies? Compare it to a thousand
16 milligrams. That's 2 million times more given to the
17 rats than are given to the mice -- I mean, given to the
18 rats and mice than the plaintiffs were exposed to.

19 Now, that's kind of hard to visualize. I've
20 done my best here. These are 10,000 dots on the screen
21 right now. I just turned one of them orange. It's that
22 guy right there. That's 10,000 to 1.

23 I'm now showing you 200,000 dots. One of them
24 is still orange. That's 200,000 to 1.

25 If I wanted to show you 2 million to 1, I

1 would have to get ten of these TV screens, line them up
2 all here with 200,000 dots apiece, and have one dot lit
3 up. That one dot would be the exposure for Mr. Pilliod
4 and Mrs. Pilliod compared to the exposure that the
5 rodents were given in these studies that they're relying
6 on so heavily in this case.

7 Mr. Wisner responds, well, that's how the
8 studies are supposed to be done. They're supposed to be
9 given these massive quantities of glyphosate. You're
10 trying to promote and prompt some sort of reaction in
11 the rodents.

12 We agree. We're not saying the studies were
13 done incorrectly. What we're saying is that the dose
14 levels in the animal studies, the purpose of that is to
15 see whether it causes cancer in the animals, not to
16 mimic the levels in a human situation, true?

17 "A. That's correct."

18 Trying to give you another context for what
19 this looks like.

20 You heard today about this Knezevich study,
21 5,000 milligrams per day, milligrams per kilogram of
22 body weight per day. You compare that to the Pilliods,
23 that's a 10 millionfold difference in that one study
24 compared to what their exposure was.

25 It's no wonder that the health regulators

1 around the world, when they're looking at these rodent
2 studies, say that these massively high doses are not
3 considered relevant for human health risk assessment.

4 Now, before I leave this question of dose, I
5 want to comment on a couple things about Dr. Sawyer and,
6 frankly, the performance that he put on here in court.

7 Do you remember Dr. Sawyer? He is truly a
8 professional witness. He is not board-certified. He's
9 not a researcher. No matter the product or the case, he
10 is a witness for hire. He has testified maybe 300 times
11 in his life. I want you to remember back to that day
12 when he was here and the types of things he was saying.

13 He compared Roundup to sarin gas, a biological
14 chemical weapon. Do you remember that? Do you
15 remember, when he was here, he started listing all these
16 ingredients that he said are part of the Roundup? He
17 said formaldehyde and arsenic.

18 Did you hear that come out of the mouth of
19 another witness in this case? Jameson, Portier, Nabhan,
20 Weisenburger? Did any other witness they called say
21 anything about this supposed list of ingredients? Did
22 anyone say that has anything to do with the safety
23 profile of Roundup, anything to do with the plaintiffs'
24 non-Hodgkin's lymphoma? No.

25 And then remember the charade that Dr. Sawyer

1 engaged in with Mr. Wisner. Remember they brought up a
2 bottle of Roundup double-wrapped in plastic? And then
3 Dr. Sawyer, from the witness stand, yells out, "Hey,
4 remember to wear gloves," as if it was a rehearsed
5 routine.

6 The bottle had water in it. Mr. Wisner straps
7 on the gloves and makes this big show of taking the
8 bottle out of the plastic. What was all that about?

9 He actually repeated that show when his own
10 client was on the stand. They got a brand-new bottle
11 from Target, and he straps on the gloves again, sprays
12 in front of you, makes you all jump back.

13 Dr. Sawyer, from the witness stand said, "The
14 gas inside a bottle of Roundup could kill every form of
15 biological life on earth."

16 That's what he said from the witness stand.
17 It's so absurd that, if you saw it on social media, you
18 would laugh. But he testified to it here in court.

19 And you have to ask yourself why. Why did
20 they do this entire charade, the gloves and the
21 spraying, the sarin gas, all these things that he was
22 talking about? It's to try to scare you.

23 Fear over science. Emotion over evidence.
24 That's what all that was about. To try to get you to
25 think that this product is so dangerous you can't even

1 touch the bottle. Why, indeed, does the lawyer wear
2 gloves when the bottle is full of water?

3 And so I hope you ask yourself and I hope you
4 think to yourself, when someone is so blatantly trying
5 to manipulate you, like Dr. Sawyer was, that you can see
6 it for what it is and that you can reject it. It
7 disrespects you and it disrespects the civil justice
8 system.

9 Now, I probably said more than I needed to
10 about Dr. Sawyer, certainly more than it deserves, but
11 I've been sitting over there for three weeks, and I
12 wanted to get that off my chest. So thank you for
13 indulging me.

14 But the bottom line is this: You folks have
15 worked too hard, been here too long to allow someone to
16 insult your intelligence like that. And I hope you
17 reject it for what it was.

18 Your Honor, maybe this is a good time for a
19 short break.

20 **THE COURT:** It is. We're going to take a very
21 short break. A ten-minute break, a real ten-minute
22 break. So we are going to resume in ten minutes. Be
23 back in your seats at 20 after the hour.

24 (Recess taken from 3:08 p.m. to 3:22 p.m.)

25 **THE COURT:** Mr. Ismail.

1 **MR. ISMAIL:** Thank you, Your Honor.

2 This is where we were. And we were starting
3 to talk about some of the regulatory reviews that were
4 done on glyphosate. And it's probably come up once or
5 twice during the course of this trial, IARC and the
6 other scientific regulatory bodies around the world.
7 And I know you folks are probably thinking right now,
8 how do I weigh those seemingly competing pieces of
9 evidence? You have IARC's determination in 2015 on the
10 one hand, and then you have every other scientific
11 regulatory review from around the world on the other.

12 And what this kind of -- we gave you some
13 reasons why you might -- why the IARC might have come to
14 a different decision than all the other regulators.
15 IARC looked at a narrower piece of the data. That's
16 just by their rules. Not saying they're good rules or
17 bad rules or anything in between, just they only looked
18 at public data as opposed to the regulatory bodies which
19 looked at the totality. That would be one reason,
20 potentially, that they came to seemingly different
21 conclusions.

22 Another perhaps, and probably more important,
23 is that they really were asking different questions.
24 And, thankfully, we had Dr. Jameson here, who made that
25 clear.

1 So let me set it up with this. This is from
2 Health Canada from 2017:

3 "It is important to note that the IARC
4 classification is a hazard classification and not a
5 health risk assessment. This means that the level of
6 human exposure, which determines the actual risk, was
7 not taken into account by IARC."

8 This goes back to the question of dose that we
9 were talking about just before the break.

10 So you have this distinction between hazards
11 and risks, and I know that kind of sounds funny to talk
12 about because in ordinary conversation we would think
13 those are pretty much synonymous, the same thing. But
14 in cancer assessment, those are very different concepts.

15 This is a document written by Dr. Jameson,
16 actually, and explains it well:

17 "A potential hazard does not establish the
18 exposure conditions that would pose cancer risks to
19 individuals in their daily lives. Such formal risk
20 assessments are the responsibility of the appropriate
21 federal, state, and local health registries and research
22 agencies."

23 That distinction between hazards and risks.

24 So we asked Dr. Jameson:

25 "Q. Putting this description

1 together from the Report on Carcinogens
2 and IARC are only indicating a potential
3 hazard, correct?

4 "A. Identifying a cancer hazard,
5 right.

6 "Q. The step of determining whether
7 or not exposure conditions that would
8 result -- that would pose cancer risks
9 to individuals in their daily lives is
10 the risk assessment that IARC did not
11 perform, true?

12 "A. They do not do risk
13 assessments, that's correct."

14 And so, really, at the bottom, you don't have
15 to decide whether you think IARC got it right or whether
16 you think every other agency got it right because
17 they're answering different questions. IARC did not
18 perform an assessment of whether glyphosate poses a
19 cancer risk to individuals in their daily lives.

20 Dr. Jameson goes on:

21 "Q. When you say here that the risk
22 assessments are the responsibility of
23 the federal, state, and local health
24 regulatory and research agencies, that's
25 what you were referring to a moment ago

1 when you were saying the risk assessment
2 belongs to the regulators?

3 "A. The regulators are supposed to
4 determine at what exposure levels you
5 may not get the cancer.

6 "Q. In the case of pesticides, the
7 regulator in the United States is the
8 EPA?

9 "A. Yes, sir.

10 "Q. And when we're talking about
11 the other regulatory agencies around the
12 world that were referred to in your
13 direct examination, EFSA or Health
14 Canada, they are doing risk
15 assessments."

16 The exposure levels in your daily lives,
17 that's their job. So let's see what they say about this
18 question. You've seen this before. The regulatory
19 agencies around the world. It is a unanimous assessment
20 of glyphosate on this issue.

21 Based -- ECHA, part of the European Union
22 Regulatory Authority: "Based on the epidemiological
23 data, as well as data from long-term studies in rats and
24 mice, taking a weight-of-evidence approach, no hazard
25 classification for carcinogenicity is warranted."

1 EFSA, also part of the European Union
2 Regulatory Authority: "Glyphosate is unlikely to pose a
3 carcinogenic hazard to humans."

4 The New Zealand EPA: "The overall conclusion
5 is that glyphosate is unlikely to be genotoxic or
6 carcinogenic to humans and does not require
7 classification as a carcinogen or a mutagen."

8 EPA: "Based on all the available data, the
9 weight of evidence clearly do not support the
10 descriptors 'carcinogenic to humans' and 'likely to be
11 carcinogenic to humans' at this time. The strongest
12 support is for 'not likely to be carcinogenic to
13 humans.'"

14 Health Canada: "Glyphosate is not genotoxic
15 and unlikely to pose a human cancer risk."

16 Australia: "The scientific weight of evidence
17 indicates that exposure to glyphosate does not pose a
18 carcinogenic or genotoxic risk to humans."

19 Today you heard Mr. Wisner ask you to
20 disregard completely the findings of the EPA. He told
21 you that they engaged in -- what did he call it?
22 Regulatory capture?

23 40 years of EPA review by the career
24 scientists at the agency, he wants you to throw aside.

25 If you agree and you want to do that, okay.

1 But look what's left. Every other group of scientists
2 in the world who have done an assessment of this
3 question, the very evidence that they talked to you
4 about during this trial, have rejected it unanimously
5 from across the globe.

6 Is he suggesting that somehow each and every
7 one of these agencies has been captured? Where is the
8 evidence of that?

9 So whatever he wants to say about EPA, there's
10 no reason for you or for him to even suggest that it
11 applies to any other group of scientists from around the
12 globe.

13 Health Canada from 2017: "Currently, no
14 pesticide regulatory authority, including Health Canada,
15 considers glyphosate to be a carcinogenic risk to
16 humans."

17 We asked Dr. Portier after showing him that
18 document:

19 "Q. And that is still true today?

20 "A. I'm unaware of a new document
21 coming out of Health Canada.

22 "Q. Or any other pesticide
23 regulatory authority that's contrary to
24 this statement, true?

25 "A. True. I am not aware of any."

1 I know there's been some references, I think
2 even the plaintiffs' examination, to whether glyphosate
3 or Roundup has been banned anywhere. There's no
4 evidence that it's been banned anywhere, and Dr. Portier
5 confirmed it to be true.

6 No regulator around the world, including
7 several since IARC, has ever accepted their scientific
8 theory for this case. And indeed, IARC, as we just
9 looked at, was answering a different question.

10 Now, another piece of evidence you can
11 consider is the Report on Carcinogens. I certainly
12 never heard of that before I got involved in this case,
13 but apparently there's a list of substances that are
14 known or suspected to the United States of being a
15 carcinogen. Not maintained by the EPA; it's actually
16 maintained by the National Toxicology Program, which
17 Dr. Portier called the gold standard for toxicology.

18 And Dr. Jameson was asked:

19 "Q. Even right up until today, you
20 can confirm for the jury that glyphosate
21 or glyphosate formulations is not on the
22 Report on Carcinogens?

23 "A. It is not because they haven't
24 thought to even review it for inclusion
25 in the report."

1 This is the NTP.

2 You know what else isn't on the Report for
3 Carcinogens? POEA. The Report for Carcinogens is in
4 evidence. You'll see it back there. I think we have
5 one from 2004. You can take a look for yourself. POEA
6 is not on there. No evidence that anyone thinks that
7 it's a carcinogenic, the surfactant they spent so much
8 time talking about.

9 Health Canada even took a look at this POEA:
10 "No human health risks of concern were identified for
11 these end-use products, provided that they contain no
12 more than 20 percent POEA by weight. All of the
13 currently registered glyphosate end-use products in
14 Canada meet this limit."

15 As you saw earlier, the surfactant concentric
16 trace in Roundup is 2 percent, well below the limit
17 stated here by Health Canada.

18 EPA has looked at this issue. I know this
19 document is a little confusing because they use the
20 acronym AAPs, but we provided the testimony of
21 Dr. Heydens, who confirms that POEA is part of that
22 chemical class. There is no evidence that the AAPs are
23 carcinogenic.

24 And with respect to this question about
25 surfactants, when we get to the issue of epidemiology in

1 a minute, remember, those are looking at the
2 formulations, everything that's in the bottle including
3 POEA for all the studies in the United States, that's
4 what's being studied and found to cause no increased
5 risk.

6 Now, I just want to say one more thing about
7 IARC so that there's no potential confusion when you
8 have your deliberations.

9 I know they said a probable human
10 carcinogenic, and you might be thinking to yourself,
11 does that somehow equate to the burden of proof that you
12 have here? So we asked Dr. Portier to confirm.

13 "Q. You would agree, sir, that a
14 particular finding of probably
15 carcinogenic or possibly carcinogenic
16 doesn't mean 75 percent or 80 percent or
17 even 40 percent because those
18 descriptors have no quantitative
19 significance, true?

20 "A. So if that was your question,
21 that's true."

22 I just wanted to clear that up so there was no
23 confusion when you have your deliberations.

24 Now, Mr. Evans reminds me that, with respect
25 to the regulatory documents that I've just referred to,

1 several of those are in evidence. They are very big
2 documents, so the Court has admitted portions of them.
3 So you can see them back there. You can look through
4 them yourself. You can see the rigor of the review and
5 the conclusion that those authorities reached, the
6 summaries of which I showed you just a moment ago.

7 Now, this question of Prop 65. Twice today
8 Mr. Wisner showed you glyphosate is known to the State
9 of California to cause cancer. That's pretty much all
10 he says about it because you guys know the rest of the
11 story, that simply because glyphosate is listed by IARC,
12 it automatically gets on the Prop 65 list.

13 There is no independent review by CalEPA or
14 any other scientists in California to make that
15 determination. They called a witness, Dr. Pease -- you
16 might remember that gentleman -- who was involved in
17 passing the legislation. He even called it a
18 ministerial act. It's automatic. There's no assessment
19 by anyone. So it really has no evidentiary value beyond
20 that. It doesn't add anything to IARC's review.

21 Now, I want to turn to a set of topics that
22 Mr. Wisner raised this morning. And, as I told you in
23 opening statements, I thought perhaps plaintiffs would
24 spend a lot of your time in this trial going through
25 emails and other documents that I respectfully suggest

1 don't actually go to the issues that you're going to
2 have to decide on your verdict form.

3 But I want to show you a couple of examples of
4 sort of the mischief that can be created when you take
5 things out of context and don't tell the full story.

6 I want to start with this issue with respect
7 to Dr. Parry. You know the story well. Dr. Parry is a
8 researcher in the UK. Monsanto scientists went to him
9 in the 1990s, asked his input on what studies to do.
10 There was some back-and-forth to be sure. We didn't
11 agree with all the studies he suggested. But at the end
12 of the day, Dr. Martens, one of the first witnesses you
13 saw in this case, by video.

14 "Q. The results of this meeting
15 that you attended with Professor Parry
16 and Richard Garnett, did Professor Parry
17 change his view as to what he thought
18 Monsanto should do next?

19 "A. Yes. But he asked for one
20 supplemental, additional study that
21 Monsanto did that would show there was
22 no difference."

23 Meaning there was no issue between the
24 glyphosate and the comparative. That's the Parry issue.

25 Then there's this question of IBT. You know

1 this story well also.

2 The 1970s, there was a contract lab called
3 IBT. Lots of different companies and researchers had
4 IBT do some of the tests. It's an outside contract lab,
5 not affiliated with Monsanto in any way.

6 And at a routine audit, FDA auditors noticed
7 some irregularities in the testing, couldn't verify the
8 data, and the EPA and FDA invalidated hundreds of tests
9 done by IBT.

10 It is not a Monsanto issue. This exhibit is
11 in evidence. 38 different companies were impacted, 140
12 different chemicals, over 800 studies. Not a
13 Monsanto-specific issue. But, like all the other
14 companies impacted, Monsanto, rightfully so, had to redo
15 the studies. And that's what we did, redid the studies
16 at labs other than IBT and to the acceptance of the EPA,
17 who continued to register the product and found to be no
18 evidence of carcinogenicity.

19 Mr. Wisner suggested that we should have
20 suspended the sales of Roundup in the 1970s while we did
21 some of these tests. This very document in evidence
22 shows that EPA agrees with the approach that Monsanto
23 and the other companies were following was appropriate
24 and adequate to deal with this event.

25 Now, the next thing he talked about was this

1 mouse study. I'm going to pause here to make sure we
2 have the context.

3 So he told you that there was this study, and
4 he showed you that there was this question about whether
5 there was a tumor in the control group. I think you all
6 remember the study that he talked about in 1983, so 35
7 years ago.

8 And what he told you today -- and he put it up
9 on the screen -- is that this pathologist, Dr. Kushner,
10 fabricated a tumor in the control room. That was the
11 accusation made today. There was not a single witness
12 you heard in this case or a single document that would
13 back up that accusation.

14 And, in fact, you heard from a witness who
15 said the opposite, and that witness was Dr. Jameson, his
16 own witness. Because, after Mr. Wisner previewed this
17 theory in opening, we asked Dr. Jameson about this
18 study. We asked him because he knew some of the
19 pathologists who you were involved in the review.

20 "Q. You told us about the purpose
21 of a pathology working group is to bring
22 in external experts in the field in the
23 subject of what's being discussed, true?

24 "A. True."

25 And Dr. Jameson told us that he knew some of

1 the pathologists who were involved and vouched for their
2 integrity and competence.

3 And we go on to ask him:

4 "Q. And you indicated, as part of
5 their review, they were, quote, blinded
6 to what they were reviewing, right?

7 "A. True.

8 "Q. And the idea is to try to take
9 out any bias, subjective or otherwise,
10 in the review?

11 "A. True."

12 So you have five pathologists brought in by
13 EPA to look at the slides to see, is there a tumor in
14 the control group? And the reviewers are not told
15 whether the slides are from the glyphosate animals or
16 the unexposed animals. So they have no idea, when
17 they're saying there's a tumor there or not, which group
18 that's going to go into until afterward, they were
19 unblinded and find out. That's to eliminate any chance
20 of bias.

21 "Q. And when they did that review,
22 the blinded expert pathologists, they
23 concurred there was a tumor in the
24 control group in the study; isn't that
25 right, Dr. Jameson?

1 "A. That's what this report says,
2 yes."

3 Fabricated, is what he says. Five expert
4 pathologists, blinded, say the opposite.

5 "Q. And when they did that review,
6 the blinded expert pathologists" -- the
7 prior question I just asked you.
8 And then they go on to ask him:

9 "Q. And, thereafter, in IARC's
10 review or EPA's review or EFSA's review,
11 all the reviewers in this study
12 considered this study as having a tumor
13 in the control group?"

14 Dr. Jameson says, "I'm trying to remember,"
15 and then he says, "Yes."

16 Dr. Jameson said there was a tumor in the
17 control group. Dr. Portier agreed. EPA, IARC, EFSA.
18 The only person in this courtroom who said there isn't a
19 tumor in the control group is Mr. Wisner, not based on
20 any evidence that you've seen.

21 Then there was this question about when he's
22 trying to suggest that Monsanto didn't do the repeat
23 mouse study that EPA first raised. We actually have
24 this testimony from Dr. Reeves:

25 "Q. We heard the questions

1 yesterday about EPA wanting a mouse and
2 rat study, and Mr. Wisner suggested that
3 Monsanto refused to do one of the
4 studies EPA wanted.

5 "Is that a fair understanding of
6 what happened here?

7 "A. No. What the EPA is describing
8 here is that the Health Effects
9 Division, they deferred their decision
10 about whether we needed another repeat
11 mouse study until they could see the
12 results of the rat study that was
13 ongoing."

14 So you heard about how long these studies
15 take -- two, three years. When EPA said they wanted to
16 see another mouse study, the company said, "Hey, we have
17 a rat study ongoing." The EPA then said, "Okay. We'll
18 defer decision. We'll see what that rat study shows,
19 and we'll let our peer review committee take a look at
20 the results." And that's what happened.

21 The committee concluded that glyphosate should
22 be classified as a Group E, evidence of
23 noncarcinogenicity for humans, based upon lack of
24 convincing carcinogenicity evidence in adequate studies
25 in two animal species.

1 Last topic he raised on this issue is this
2 question of ghostwriting. And this related to two
3 articles. And he presented three and a half hours of
4 videotape to you during this trial on the authorship of
5 these two articles. That is longer than Dr. Nabhan and
6 Dr. Weisenburger combined spent talking about Mr. and
7 Mrs. Pilliod.

8 First one is this Williams article. This is
9 the way the Williams article appeared at the time. This
10 is not a correction. They thank the toxicologists and
11 other scientists at Monsanto who made significant
12 contributions to the paper, and they list them there on
13 the face of the article.

14 The second one is the Intertek paper. Now,
15 you remember the video that was shown and the evidence.
16 It is certainly the case that Dr. Heydens made comments
17 on the Intertek paper on a late draft of that before it
18 was published.

19 And I suppose an argument can be made that the
20 non-Monsanto authors of that paper should have
21 acknowledged his contribution. The editors of the
22 journal certainly thought so, and they issued a
23 correction noting that that contribution was made.

24 And if you folks agree with the editors, I'm
25 certainly not going to try to talk you out of it,

1 because at the end of the day, nothing in that -- that
2 paper, the substance of that paper, was never even
3 discussed here in court. None of our experts relied
4 upon it. They never even showed you the comments from
5 Dr. Heydens, whether they were significant or even
6 accepted by the authors.

7 Dr. Heydens, for his part, didn't fault the
8 non-Monsanto authors. He thought his contributions were
9 minimal. But I understand you folks might disagree.
10 But the point of the matter is none of that goes to any
11 of the issues that you're going to be asked to decide.

12 And you know this question about emails and
13 other company documents, I can understand why they want
14 to go through that in such detail rather than talking
15 about the causation issues in this case.

16 And, you know, is the phrase whack-a-mole the
17 right phrase to use when talking about scientific
18 discourse? No, probably not. But that's the problem
19 with email, right? It's a very informal mode of
20 communication. And what may seem in a moment of
21 frustration writing something at one point, is that
22 really fairly captured, the thinking and the process of
23 the scientists at Monsanto?

24 Might I see how you folks might be bothered by
25 the phrase "orchestrate outcry"? Yeah, I can understand

1 why you might.

2 One of our witnesses, Mr. Murphey, you saw on
3 video. He was the communications guy for the company.
4 He said that was not a phrase that he would use and does
5 not fairly describe our work or our scientists.

6 But the point here is I want you to think
7 about this product that's been on the market for 40
8 years. Hundreds or thousands of people at Monsanto have
9 been involved. Just imagine the number of emails or
10 memos that have been written over the past 40 years on
11 this product, and you can have very skilled --

12 **MR. WISNER:** Objection, Your Honor. It's not
13 in evidence.

14 **THE COURT:** I'm sorry. What do you mean with
15 respect to the --

16 **MR. WISNER:** He's making up stuff.

17 **MR. ISMAIL:** Excuse me?

18 **THE COURT:** He's asking them to imagine.

19 **MR. WISNER:** Yeah. Which I was not allowed to
20 do.

21 **THE COURT:** Why don't you rephrase.

22 **MR. ISMAIL:** Sure.

23 You can use your common sense to think about
24 the number of emails or memos that must have been
25 written over the last 40 years at Monsanto on this

1 product. And it doesn't -- and you can imagine skilled
2 lawyers wanting to take a few of those documents, pull
3 out a phrase, highlight it on a 70-inch screen to cast
4 the scientists and other men and women at Monsanto in a
5 negative light.

6 You can understand what they're doing and why
7 they're doing it. But what I ask you to do is to
8 consider whether any of that -- does any of that mean
9 that Roundup or glyphosate causes cancer? Of course
10 not.

11 Does any of that mean that -- even that the
12 folks at Monsanto think it causes cancer? Of course
13 not.

14 And so I hope you can put in context and
15 understand why it is they're showing you that and stay
16 focused on the questions that you will be asked to
17 decide.

18 On this question about testing, he suggested
19 that Roundup has not been adequately tested. And we
20 actually took care of that with the first witness in the
21 case, Dr. Portier.

22 "Q. You would agree, sir, that
23 between the glyphosate studies and the
24 formulated product studies in the
25 various categories of evidence, there is

1 sufficient testing and data to allow a
2 competent scientist to conclude whether
3 or not these products cause cancer,
4 correct?

5 "A. Correct.

6 "Q. That was true in 2015, true?

7 "A. True.

8 "Q. And that was true even before
9 2015, correct?

10 "A. Correct."

11 Dr. Portier told you that the rodent studies
12 on glyphosate is the largest database of animal
13 carcinogenicity studies he's ever seen in over 30 years.
14 There's more than ample data to allow a safety review on
15 Roundup and glyphosate.

16 Let's talk about the rodent data. It's
17 interesting. Today we heard for the first time that you
18 don't even need the epidemiology; you can just look to
19 the rodent data to answer this question. Not backed up
20 by their own witnesses.

21 Dr. Portier:

22 "Q. You agree, sir, that you would
23 have to consider that the animal data
24 alone, without looking at the human
25 data, it would be difficult to form a

1 causation opinion in this case, as you
2 stated?

3 "A. In my opinion, I'll go a little
4 stronger. If all I have is the animal
5 data, making a causal statement about a
6 specific human disease would be
7 difficult, close to impossible."

8 That's what their witnesses say about whether
9 you can just look to the animal data to answer this
10 question.

11 Dr. Weisenburger:

12 "Q. And you agree with witnesses
13 who were here previously that the animal
14 studies alone cannot prove that
15 glyphosate or Roundup caused NHL, true?

16 "A. Yes."

17 So what do we know about the animal data?
18 Well, he brought up today this George study, this
19 promotion study. It's interesting that he brought it
20 up. I think he spent longer today talking about it than
21 the witnesses did during the trial. And we know why.

22 IARC, that's the quote above, talking about
23 the George study. This is their idea that glyphosate is
24 a promoter.

25 "The design of the study was poor, with short

1 duration of treatment, no solvent controls, small number
2 of animals, and lack of histopathological examination.
3 The working group concluded that this was an inadequate
4 study for the evaluation of glyphosate."

5 Dr. Jameson:

6 "Q. You voted to include this
7 language in the assessment of the George
8 paper, true?

9 "A. Yes."

10 None of their witnesses talked about this as
11 being a valid paper, and everyone seems to agree it's a
12 pretty lousy study. You didn't see any other evidence
13 of this promoter idea. And, in fact, it doesn't even
14 make any sense in this case.

15 Mr. Pilliod was diagnosed in 2011, was in
16 remission by October. They say he was spraying
17 throughout until 2016. Remains in remission today.
18 This idea that it's a cancer promoter is inconsistent
19 with his course of the disease.

20 Mrs. Pilliod stopped spraying a couple years
21 before, again, before her diagnosis. Again,
22 inconsistent with this idea that it's a promoter.

23 He tells you that it's undisputed that the
24 animal data show that glyphosate is a carcinogen. These
25 are the documents in evidence in this case.

1 ECHA concluded that, "On the epidemiological
2 data as well as data from long-term studies in rats and
3 mice, taking a weight-of-evidence approach, no hazard
4 classification for carcinogenicity is warranted."

5 EFSA, "No evidence of carcinogenicity was
6 observed in rats or mice."

7 EPA, "None of the tumors evaluated was
8 considered to be treatment-related based on
9 weight-of-evidence evaluations."

10 New Zealand, "The total dataset of long-term
11 carcinogenicity bioassays were consistently negative."

12 So this idea that the animal data were
13 undisputed, the documents are in evidence. You can read
14 them for yourself.

15 Mechanism data. Again, he tells you you can
16 look at the mechanism data rather than the epidemiology.

17 "Q. You agree with the witnesses
18 who were here earlier that the
19 genotoxicity studies, mechanism studies
20 alone, cannot prove that glyphosate or
21 Roundup caused NHL, true?

22 "A. Yes."

23 He tells you that it's undisputed that
24 glyphosate is genotoxic. We have here evidence, part of
25 this record, from Health Canada, "Glyphosate is not

1 genotoxic."

2 Australia, "Glyphosate does not pose a
3 carcinogenic or genotoxic risk to humans."

4 In fact, EPA, "Evidence do not support a
5 genotoxic risk at relevant human exposure levels."

6 And, indeed, we asked Dr. Portier:

7 "Q. I think you agreed earlier that
8 there was no public health agency of
9 which you were aware that concluded that
10 glyphosate causes genotoxicity, and that
11 includes the National Toxicology
12 Program, right?

13 "A. Yes, of course."

14 He tells you it's undisputed? Stamping
15 "undisputed" on a screen over mechanism studies does not
16 make it undisputed. This is the evidence that you heard
17 in the case.

18 Dr. Portier thinks the NTP is the gold
19 standard of toxicologists. The NTP, including any other
20 public health agency in the world, none of them think
21 glyphosate is genotoxic.

22 And I know there was some discussion in this
23 trial about genotoxicity. And it's not a term most of
24 us are familiar with before we got to this trial.
25 Genotoxicity is not cancer. It is not the same thing.

1 "Q. For a chemical to cause cancer
2 through genotoxicity, the genetic change
3 has to progress to a mutagen, true?

4 "A. A specific type of mutagen.

5 "Q. So just because any exposure, a
6 chemical, anything can cause damage to
7 DNA, that doesn't mean it's going to
8 cause a mutation, true?

9 "A. It doesn't guarantee it, it is
10 true."

11 Dr. Bello walked you through this.
12 Genotoxicity means DNA damage, nonspecific DNA damage.
13 It is not the same thing as mutagenicity, and it's not
14 the same thing as being a carcinogen.

15 "Q. In terms of DNA damage, is that
16 something that happens in all of us on a
17 daily basis?

18 "A. Every day.

19 "Q. So even if a compound has been
20 shown to lead to genotoxicity and DNA
21 damage, does that necessarily mean that
22 compound proceeds to all the pathways to
23 the point of it being a carcinogen as
24 well?

25 "A. No."

1 He told you our witnesses didn't address
2 genotoxicity? There's the testimony right there.

3 "Q. So the question is whether
4 glyphosate can cause mutations. And
5 it's not just any mutation you need; you
6 need to have one of these crucial ones
7 that you described yesterday.

8 "A. Correct."

9 Mr. Wisner put up the slide with the board
10 with the pluses and positive/negative and the question
11 marks. He just showed it again today.

12 "Q. The genotoxicity studies
13 Mr. Wisner put on the board and put
14 pluses and minuses and question marks,
15 do you recall doing that yesterday?

16 "A. Yes.

17 "Q. None of those studies showed
18 that glyphosate caused genotoxicity that
19 progressed to actual mutations, true?

20 "A. Give me a second to go through
21 the assays. I believe that's true.

22 "Q. There's not enough evidence to
23 say that glyphosate causes mutations,
24 true?

25 "A. That is true."

1 Dr. Levine:

2 "Q. Does glyphosate or roundup
3 cause mutations?

4 "A. No study has shown that
5 glyphosate causes mutations in those
6 cells."

7 Dr. Portier agrees, Dr. Levine agrees. This
8 is the European Union regulators, "No classification of
9 glyphosate for germ cell mutagenicity is warranted."

10 This is the EPA from 2017. By the way, after
11 Jess Rowland had left the EPA, to the extent you were
12 wondering about that. Four different times concluding
13 there's no evidence that glyphosate causes mutations.

14 Human epidemiology, you saw these pillars
15 again. Now, these pillars are purposely drawn this way
16 to make you think that those are three equal supports
17 for answering causation, but they're not.

18 Dr. Portier:

19 "Q. You further agree that, in the
20 evaluation of human health risks, sound
21 human data, wherever available, are
22 preferable to animal data?

23 "A. Yes."

24 Dr. Bello:

25 "Q. In terms of -- to the extent

1 somebody was showing a picture of three
2 equal pillars -- animal data, mechanism
3 data, and epidemiology data -- do you
4 think that those should be given equal
5 weight in cancer research?

6 "A. No, not for humans."

7 And, of course, we're answering the question
8 of does glyphosate or Roundup pose a cancer risk to
9 humans at relevant exposure levels? It's the
10 epidemiology that should go.

11 You recall this graph from Dr. Mucci, the
12 hierarchy of evidence? Well-done epidemiology studies
13 at the top. As you go down the levels of hierarchy of
14 evidence, animal studies and petri dish studies are even
15 below the bottom layer. And there's a reason why they
16 want to point you away from the epidemiology.

17 Let's go over what their witnesses said.
18 Dr. Weisenburger:

19 "Q. You agree that the epidemiology
20 alone is not sufficient to say there's a
21 causal association, correct?

22 "A. I think that's true. Correct."

23 Dr. Portier:

24 "Q. In terms of the human data that
25 we have seen in this case, you agree

1 that you cannot make a firm statement
2 that Roundup causes NHL from the
3 epidemiology data alone, true?

4 "A. Correct. I cannot do it from
5 the epidemiology data alone."

6 Four concepts of epidemiology that were talked
7 about in this trial. If you've got data, use the
8 largest dataset you have from the study; no
9 double-counting, no cheating; adjust for other
10 pesticides where we can; and statistical significance
11 matters. Pretty basic.

12 On the question of adjustment, you heard
13 Mr. Wisner today questioned whether adjustment is
14 necessary.

15 Dr. Weisenburger:

16 "Q. One of the most important
17 confounders in the data we're looking at
18 in this trial is the issue of pesticide
19 exposure, correct?

20 "A. Yes.

21 "Q. And you agree that it's
22 appropriate to adjust for the
23 participants' exposure to multiple
24 pesticides when trying to answer the
25 question of whether Roundup causes NHL,

1 true?

2 "A. Yes.

3 "Q. And you agree it's not only
4 appropriate, it improves the accuracy of
5 the data you're looking at, true?

6 "A. Yes.

7 "Q. Because if you don't adjust for
8 other pesticides when examining whether
9 Roundup increases the risk of NHL, you
10 might be introducing a confounder in
11 your analysis, right?

12 "A. Yes."

13 Six witnesses talked to you about the
14 importance of adjusting for other pesticides. It's even
15 described in the IARC monograph. Unanimous that you
16 have to look at the adjusted data when it's available.

17 This is the picture in 2015 when IARC made its
18 determination. This is showing the adjusted data where
19 it's available. And there was four studies that were
20 adjusted for other pesticides, two that did not.

21 I know there's a dispute about the De Roos
22 study. They have two different numbers in that study
23 for the adjustment. One is statistically significant,
24 the other is not.

25 But the De Roos study becomes part of the

1 NAPP. And when we look at the larger dataset, I'll show
2 you in a minute. None of these are statistically
3 significant. That's why IARC said the epidemiology is
4 limited. You can't rule out confounders -- bias,
5 chance -- in the analysis.

6 So what's happened since IARC? Well, there's
7 the NAPP study, three different presentations of the
8 NAPP. Every time they want to talk to you about the
9 NAPP study, they point to the June 2015. They even did
10 it today. He put it on the slides today. They did it
11 with Dr. Ritz; they did it with Dr. Weisenburger. But
12 Dr. Weisenburger is an author on these presentations.
13 And we asked him:

14 "Q. So this June 2015 dataset, as
15 you testified under oath in your
16 deposition, is old and superseded,
17 right? Correct?

18 "A. There is other data available,
19 yes."

20 And then I show Dr. Weisenburger this slide,
21 and he agreed. The first presentation, old and
22 superseded.

23 So why is it that they keep going to this
24 presentation and ignoring the recent data? Even after
25 Dr. Weisenburger made this admission, when Dr. Mucci was

1 here, they pulled out the bad data and asked her
2 questions about it. They even did it again today.

3 I don't think I have to try very hard to
4 convince you folks that the updated data from NAPP is
5 harmful to their case. I think they're doing a pretty
6 good job of that on their own.

7 And here's why. This is the updated data from
8 NAPP. Different analyses. Remember the proxy and
9 self-responders, what that's all about? Self-responders
10 just means the people who actually used the pesticide
11 filled out the questionnaire.

12 This data includes De Roos, includes McDuffie,
13 is adjusted for other pesticides. Ever/never, comparing
14 people who ever use glyphosate to those who didn't. One
15 column, 1.13; the other, .95. Both not significant.

16 If you used the product for more than three
17 and a half years, relative risk of .94 or .78. That's
18 where the Pilliods would fall.

19 The risk went down the more years you used the
20 product in Dr. Weisenburger's study. More than two days
21 per year, 1.73, borderline statistically significant
22 positive; 1.77, borderline statistically significant
23 negative.

24 If you used it more than seven days, pretty
25 much spot on 1, not statistically significant.

1 What they want to do is they want to
2 cherry-pick. There's eight analyses here. Seven of
3 them show no increased risk, not statistically
4 significant. Some of them were under 1. One of them
5 shows an inverse trend. They want to cherry-pick one
6 number from here and say, aha, we found it.

7 But even as to that analysis, the more than
8 two days per year, these researchers did a dose-response
9 test. And what they showed is that there was no dose
10 response.

11 Because we got to ask Dr. Weisenburger:

12 "Q. The whole point of doing
13 statistics is so researchers don't just
14 eyeball their data and say, well, it
15 looks different to me. It means I'm
16 going to do a rigorous scientific
17 equation to see if these -- are these
18 statistically meaningful differences,
19 true?

20 "A. Yes.

21 "Q. And when you did that, this is
22 negative for dose response, correct?

23 "A. Yes."

24 This is the picture for the epidemiology.
25 When you have -- the NAPP includes McDuffie and De Roos,

1 and the studies on the right. Andreotti, that's the
2 Agricultural Health Study. And the one on the left is
3 the Leon study that just came out while we were here in
4 court.

5 We're not saying you should look at the
6 Agricultural Health Study to the exclusion of everything
7 else; we've just saying you should look at the
8 Agricultural Health Study as part of the overall
9 picture. And when you do, there is no statistically
10 significant increased risk. In fact, several of these
11 have a relative risk below 1.

12 Dr. Weisenburger, asking him about the NAPP:

13 "Q. This is the largest pooled
14 case-control dataset you're aware of?

15 "A. I believe so, yes.

16 "Q. And it shows no increased risk
17 for NHL following glyphosate exposure,
18 correct?

19 "A. For ever/never, yes."

20 The Leon study is the largest study done on
21 glyphosate.

22 "Q. You told us yesterday that
23 the -- overall, there was no increased
24 risk of non-Hodgkin's lymphoma following
25 glyphosate use in the Leon paper,

1 correct?

2 "A. I believe that is true, yes."

3 **MR. WISNER:** Your Honor, I don't want to --
4 can we have a quick sidebar?

5 **THE COURT:** Sure.

6 (Sidebar discussion not reported.)

7 **THE COURT:** We need to make some adjustments
8 in terms of time. We're probably going to go to 4:45
9 and completely finish. But I want to get closing
10 completely done and do the final instructions. Anybody
11 have a problem with 4:45 today?

12 Do you have a commitment?

13 **A JUROR:** Warriors game.

14 **THE COURT:** That's not on until 7:30. You're
15 good.

16 Okay. If anybody needs to make a phone call,
17 I can pause for a few minutes to give you time to do
18 that, but I'd like to let Mr. Ismail finish.

19 Go ahead, Mr. Ismail.

20 **MR. ISMAIL:** Thank you, Your Honor.

21 Okay. We'll wrap up here.

22 There's been one meta-analysis presented in
23 this case that includes all the data that has been
24 adjusted for pesticide use. None of the other
25 meta-analyses they showed you included the Leon study

1 that just came out or the full Agricultural Health
2 Study. This is unrebutted testimony, unrebutted
3 evidence regarding the risk of glyphosate.

4 Question about dose response. We can go
5 through this relatively quickly. There were some
6 earlier studies that were not adjusted for other
7 pesticide use that did show a risk. But all the more
8 recent studies -- the NAPP, the agricultural health
9 studies -- all showed no dose response.

10 DLBCL, if you want to look at this in
11 particular. This has been annualized in five different
12 papers. The first four show no increased risk. The
13 Leon paper was borderline. But when you actually
14 include all the Agricultural Health Study data in it,
15 relative risk is statistically insignificant.

16 Now, plaintiffs' counsel -- I put this in here
17 because plaintiffs' counselor showed a different plot
18 today. And this is something they kept showing during
19 the witnesses during the trial. And the one he showed
20 today was actually more misleading than this.

21 All the double-counting of the data, this one
22 has Eriksson on here three different times, McDuffie
23 twice, cherry-picking data from different parts of the
24 studies, double-counting, using unadjusted data.

25 When he says to you, well, gee whiz, all the

1 points are to the right of 1, that's only because they
2 eliminated all the points to the left of 1. If you put
3 Leon on here, it's to the left. If you put the
4 Agricultural Health Study, it's to the left. If you put
5 the self-responders from NAPP, it's to the left. It's
6 not that hard to make a picture look skewed like this
7 when you eliminate the data.

8 The IARC came out in March of 2015. What's
9 happened since IARC came out? Seven different
10 scientific regulatory reviews all saying glyphosate
11 products do not increase the risk of cancer. Three very
12 large epidemiology studies -- the NAPP, the Agricultural
13 Health Study and Leon -- all with a relative risk that
14 shows no increase in the risk of non-Hodgkin's lymphoma
15 for glyphosate.

16 This is what the pictures look like since
17 IARC.

18 Dr. Levine walked through this data with you
19 on Monday. We had Dr. Levine do this because she
20 actually lived it. She looked at this data in the 1980s
21 and was seeing this trend of increasing non-Hodgkin's
22 lymphoma. And she predicted and identified that was due
23 to the AIDS epidemic. And, as you can see, the rate has
24 plateaued over the last two decades.

25 And then she also plotted on here the use of

1 glyphosate products in the United States over the exact
2 same period of time. And what she told you was, if the
3 plaintiffs' theory is true, if glyphosate-based products
4 are this significant cause of non-Hodgkin's lymphoma,
5 you would see some impact on the rate of non-Hodgkin's
6 lymphoma.

7 Rather than deal with this evidence, do you
8 remember what happened on Monday, what Mr. Miller did?
9 He just changed the scale to make it look like the rate
10 of NHL was going up. He sort of manipulated the scale
11 to make it seem like, well, gee, I can make the rate go
12 up if I just change the scale.

13 But you know what? We got this testimony from
14 Dr. Weisenburger.

15 "Q. The truth of the matter is that
16 the rate of non-Hodgkin's lymphoma began
17 increasing in this country back in the
18 beginning of the -- from the 1940s
19 through the 1950s, correct?

20 "A. Yes.

21 "Q. That's several decades before
22 Roundup came on the market or any
23 glyphosate-based formula, true?

24 "A. Yes."

25 And here's the key question:

1 "Q. And, as you know and have said
2 before, the rate of NHL nationally has
3 plateaued over the last couple of
4 decades, correct?

5 "A. Yes."

6 Exactly the picture that Dr. Levine showed you
7 on Monday.

8 Now, everything I just talked with you about
9 thus far has gone to the question of causation. Was
10 Roundup -- did the plaintiffs prove that Roundup was a
11 substantial factor in proving the plaintiffs' -- causing
12 the plaintiffs' non-Hodgkin's lymphoma? Much of that
13 evidence also goes to several of the questions on the
14 form, questions about negligence or the design of the
15 product or, indeed, even the warnings.

16 You heard evidence that the EPA approves the
17 warning for Roundup. And you can consider that evidence
18 as well.

19 So everything I just talked about, I'm not
20 going to rehash it in the context of these other
21 questions, but they all go to show the plaintiffs failed
22 to meet their burden of proof on those questions as
23 well. But there are a couple of other pieces of
24 evidence I wanted to highlight.

25 Dr. Portier:

1 "Q. When IARC made its
2 determination in 2015, that was the
3 first scientific organization that had
4 ever classified glyphosate as a probable
5 carcinogen, true?

6 "A. That's my understanding. I
7 can't be absolutely certain."

8 Now, the reason why I wanted to show you that
9 is because this question about the warning that you have
10 on the verdict form. You have to consider that during
11 the relevant time period. Mr. Pilliod's cancer was in
12 2011. Mrs. Pilliod was diagnosed in April of 2015, but,
13 as Dr. Nabhan told you, she had developed that cancer by
14 February, at the latest, of 2015. All that prior to the
15 IARC, which is the first time anyone has ever said
16 glyphosate is a probable human carcinogen.

17 One of the things I hope has become clear, we
18 showed you all those regulatory agencies' positions and
19 all the other documents in this case that there is a
20 scientific disagreement.

21 Plaintiffs' witnesses think one thing; IARC
22 said what they said about the hazard risk; and you have
23 all the other regulatory agencies around the world, the
24 Monsanto scientists, the experts we called.

25 But when you have to address this question of

1 negligence, what you saw in the instructions were the
2 questions about reasonableness. You don't have to agree
3 with everything that Monsanto did, but you still agree
4 that our conduct was reasonable.

5 So I wanted to remind you of this testimony.
6 I was showing Dr. Nabhan some of the regulatory
7 statements that had been in evidence in this case, and I
8 asked him:

9 "Q. No hazard classification for
10 carcinogenicity is warranted for
11 glyphosate."

12 I was reading him a document. He said:

13 "A. That's the conclusion they
14 arrived at.

15 "Q. I assume you're going to tell
16 us that it's your opinion that they got
17 it wrong, right?

18 "A. I disagree. I disagree with
19 the opinion. Reasonable people can
20 disagree."

21 Dr. Portier and Dr. Jameson, you see their
22 testimony there, acknowledging that whatever else had
23 gone on, that there is a scientific disagreement.

24 Dr. Portier involved himself in the process.
25 Remember those letters he wrote the European Union about

1 the registration and the risk assessments? They
2 responded to him, and he acknowledged. It's just a
3 scientific disagreement. You may consider that evidence
4 when answering your questions on the verdict form.

5 Mr. Wisner just now made a -- this morning, I
6 should say -- made a request for punitive damages. And
7 you heard the instructions from the judge about the
8 heightened burden that the plaintiffs have, clear and
9 convincing proof, well beyond their burden of proof for
10 the other questions on the form.

11 You heard that they have to make special
12 findings -- malice, intent to injure. You heard that in
13 the instructions. Not your standard findings that you
14 have to make.

15 I don't intend to say much about his request,
16 but I do want to remind you that, whatever else you
17 think about what I said today or what's going on with
18 this trial, I hope you recognize, when you look at the
19 regulatory agencies' reviews and you look at the
20 reasonable people can disagree, that that conduct is
21 far, far afield from the standard that they would have
22 to prove to justify his demand today.

23 Okay. I'm almost done.

24 And I wanted to show you this, going back to
25 where we started, and that is the question of

1 substantial factor. Reminding you that the instruction
2 is -- includes the following phrase:

3 "Conduct is not a substantial factor in
4 causing harm if the same harm would have occurred
5 without that conduct."

6 That's the instruction.

7 And then I want to show you this testimony
8 from Dr. Weisenburger:

9 "Q. You agree that Mr. and
10 Mrs. Pilliod could have developed the
11 exact same lymphoma at exactly the same
12 time with exactly the same features,
13 even if they never used Roundup, true?

14 "A. It is true. They would have
15 the same risk as you or I."

16 And so on this question that is central to
17 every claim they have in this case -- did the plaintiffs
18 prove that Roundup was a substantial factor in causing
19 their NHL? -- I suggest to you the answer is no for
20 multiple reasons.

21 You can think about Mr. Pilliod's risk factors
22 and what that means about their burden.

23 You can think about Mrs. Pilliod's risk
24 factors and what that means about their inability to
25 meet their burden of proof.

1 You can think about the fact that, as we told
2 Mr. Miller yesterday:

3 "Q. The majority of cases, doctors
4 do not know why their patients develop
5 non-Hodgkin's lymphoma?

6 "A. True."

7 You can think about t(14;18) and Mrs. Pilliod,
8 that her specific tumor has been generally tested and is
9 not associated with pesticide exposure but is with
10 smoking.

11 You can think about the question of dose.
12 2 million time difference between what the animals were
13 exposed to and what humans are exposed in their daily
14 lives.

15 You can think about all the regulatory
16 agencies around the world who have considered this
17 question in the last three years and have rejected every
18 scientific theory that they advanced in this case.

19 You can think about the fact that there's been
20 no evidence in this case that glyphosate or Roundup
21 causes mutations. None.

22 You can think about the fact the human
23 epidemiology, when you look at all of it and you don't
24 cherry-pick and you look at the data that's been
25 adjusted, shows no increased risk.

1 You can think about the fact that, after all
2 this time that we've been here in this trial, the
3 plaintiffs haven't showed you a single document or
4 medical record or test specifically linking either
5 plaintiff's NHL to Roundup.

6 And the thing is, you don't have to agree with
7 us on all of these or even some, because, if you follow
8 any of these paths, you get to the same answer, that the
9 plaintiffs have not met their burden of proof to prove
10 substantial cause -- a substantial factor.

11 Now, I'm about to sit down, and Mr. Wisner is
12 going to get another opportunity to speak with you.
13 And, as I know you will, I know you're going to
14 respectively listen to what Mr. Wisner has to say. But
15 because of the rules of court and because they have the
16 burden of proof, I'm not going to get another
17 opportunity to address you again. So even if we
18 disagree with literally everything he's going to tell
19 you, I'm not going to get another chance to talk to you.
20 And so I have to ask you a favor.

21 While you're respectfully listening to
22 Mr. Wisner, I would ask on your own to try to think of
23 the evidence and arguments on the other side of the
24 story.

25 And with that, on behalf of Kelly and June and

1 myself, I would like to thank you all for your
2 incredible hard work over the last five weeks. And I'd
3 ask -- you're about to begin your deliberations, and I'd
4 ask, at the conclusion of which, you render your verdict
5 for Monsanto. Thank you.

6 **THE COURT:** All right. So Mr. Wisner is going
7 to do rebuttal. 15 minutes. 4:35, hard stop.

8 **MR. WISNER:** So I got a note -- may I proceed,
9 Your Honor?

10 **THE COURT:** Yes, go ahead.

11 **REBUTTAL CLOSING ARGUMENT**

12 **MR. WISNER:** I got a note every time he said
13 something that was false, misleading, or untrue. And I
14 have a card deck here that I can't possibly get through.

15 **THE COURT:** Mr. Wisner --

16 **MR. WISNER:** So I'm going to go through the
17 highlights.

18 **THE COURT:** -- just do the --

19 **MR. WISNER:** Yeah. I'll go through some of
20 them.

21 First one, he went up there and said "He
22 showed you a misleading chart." I didn't show the NAPP
23 data for both.

24 Well, actually it's on here. There's NAPP
25 Brazil, and there's -- I'll show you the NAPP from --

1 it's on the other slide. There we go. NAPP Canada and
2 NAPP Brazil. It's right here. I didn't hide anything.
3 You know what's funny? You heard from the guy who
4 actually wrote NAPP, and he told you that it shows that
5 it causes cancer. His name is Dr. Weisenburger. He has
6 the unique distinction, unlike any of the experts hired
7 by Monsanto, to have actually studied Roundup in cancer.
8 He actually has done it. And he's the one who testified
9 and said that's what the NAPP shows.

10 Mr. Ismail actually came up to you and said
11 that we have to look at the ecological data. I couldn't
12 believe he showed this to you.

13 And he showed you this chart, right, where you
14 have the incidence of NHL that looks essentially flat,
15 right? Because it changes from about 10 to 20. But for
16 some reason that no one can explain, they put it on a
17 0-to-100 scale. That's not only misleading, that's just
18 outright manipulative.

19 And then, when we had the smarts to, let's
20 show you when you properly scale it, he says that we're
21 the ones who are trying to manipulate you by properly
22 scaling a graph? Get out of here. All right.

23 **THE COURT:** Mr. Wisner, knock it off.

24 **MR. WISNER:** He called me manipulative.

25 **THE COURT:** Okay. Knock it off, and let's

1 finish at 4:35.

2 **MR. WISNER:** Fair enough, Your Honor.

3 But he called me manipulative. You all heard
4 that. He had the nerve to say Dr. Sawyer was trying to
5 manipulate you because he said glyphosate was like sarin
6 gas. He didn't say that. He say it's an organic
7 phosphate, which is in the same family as sarin gas.
8 And then, when they cross-examined him, he said, "No,
9 no, no. I'm not saying it's sarin gas."

10 He said that Dr. Sawyer told you that ethylene
11 oxide that can accumulate in the headspace of glyphosate
12 would instantly kill everybody. He actually didn't say
13 that. He actually said when you're spraying, you're
14 probably fine. He was talking about trace impurities
15 that are in the way Monsanto makes the product.

16 And then Dr. Sawyer talked about the George
17 study, but he said no one talked about it. And
18 Dr. Sawyer actually testified very clearly on page 332
19 of the transcript that the doses that were used in the
20 George study, that had 40 percent tumors in the skin,
21 were at the same doses that the Pilliods have.

22 You heard cross-examination from Dr. Phalen,
23 when I said, "Hold on a second. You got to this
24 calculation looking at the area of the leg. You didn't
25 consider hands. You had a low 1 percent dermal

1 absorption rate." It was voodoo science.

2 But what's really interesting is when I said,
3 "When you use Monsanto's own model, the POEA model, when
4 you actually use it, it was like 8 to 12 milligrams."

5 And you know what that is, comparative, you
6 want to start using multipliers? That's over 2 to
7 3 million times greater than what Dr. Phalen said.

8 But the problem is we don't know what that
9 dose means because nobody told us how much of a dose you
10 have to have to get cancer, because that's not something
11 that's been studied because you can't do a clinical
12 trial on humans. You can't systematically in a
13 laboratory subject certain humans to Roundup and certain
14 ones to not and say "What's the dose going to be?"
15 because that would be unethical.

16 All we have is days of exposure. That's the
17 metric that was used in the epidemiological literature.
18 That's all we've got. They had 1500 days of exposure.
19 Same thing in the epidemiology. And their own expert
20 said Mr. and Mrs. Pilliod fell into the highest category
21 for each of them.

22 He said that the National Toxicology Program,
23 he showed you a quote from Dr. Portier, but the National
24 Toxicology Program has never actually made a
25 determination about genotoxicity.

1 So when he said, "You're not aware they made a
2 determination?" he goes "No," because they haven't.
3 There is no evidence of it. That's just a straw man
4 argument.

5 He talked about it not being a mutation.
6 Yeah, as it relates to salmonella. He even showed you a
7 document talking about germ mutations, misleading,
8 because we know it doesn't cause mutations in salmonella
9 or germs. No one disputes that. But it's sure as heck
10 genotoxic in human lymphocytes.

11 And you know what's funny? They said, "Oh, we
12 did dispute the cellular data." No, they didn't. They
13 showed Dr. Bello's quote. She looked at two studies.
14 Two studies.

15 But the big one was the EPA and every other
16 national body.

17 Let me just be frank with you. You haven't
18 heard a single person from this witness stand talk about
19 what they did. They didn't call a single soul from
20 Canada, New Zealand, Zimbabwe, or wherever the heck else
21 they had. And the reason why you didn't hear from that
22 is because they couldn't find someone to tell us what
23 they actually did.

24 So, instead, what they've done is say, "Look
25 at the documents. Trust us. They're right."

1 The only person we heard from was Dr. Portier
2 who actually gave you testimony and evidence about the
3 EPA report. He said they didn't follow the guidelines
4 that he had written. They didn't follow them.

5 And then, when you looked further, he talked
6 about the Australia one briefly because he'd read it.
7 He said they looked at three studies. Okay. That's not
8 helpful.

9 EFSA. You saw a letter joined by over a
10 hundred scientists saying, "EFSA, you're wrong; IARC is
11 right." They want to give you a disembodied expert on
12 the stand, but there's no one there to speak for those
13 people because there is no one to speak. Their science
14 is indefensible. How can you cite fraudulent mouse data
15 and say, "Oh, yeah, we did a good job"? That's
16 outrageous.

17 I want to talk a little bit about some of
18 these things.

19 Now, we have to prove that it's a substantial
20 factor, right? But then Monsanto goes, well, hold on.
21 If they would have gotten the cancer anyway, then we
22 win.

23 So they're trying to get you to make a leap.
24 They're trying to make you think, oh, something else
25 caused their cancer. It wasn't the Roundup. They would

1 have gotten it anyway.

2 And to do that, they talk about this
3 suppressed immune system, they talk about Hashimoto's,
4 ulcerative colitis, every other thing they could think
5 of. But you know what the problem is? Their own
6 experts each said, unequivocally, it didn't cause their
7 cancer.

8 So you can't have it both ways. If it's
9 something that would have caused it, then your experts
10 should have said it, but they didn't because they know
11 there's a problem if they do.

12 Simple fact is the evidence you have is that
13 the only thing that could have been a substantial
14 contributing factor is Roundup, because everyone else --
15 their own experts say none of those other things
16 actually were causes.

17 So pick your poison. I mean, stop trying to
18 play word games here. Right? It's a substantial factor
19 or not. And the simple fact is the evidence is
20 overwhelming.

21 Now, there was this discussion about a t14
22 mutation, and he showed you Exhibit 6789. And I just
23 want to show it to you. This is the actual study that
24 Dr. Weisenburger -- obviously, none of their experts
25 offered any opinions about this. This is just them

1 talking about the study.

2 And if we go to -- it says right here on the
3 bottom: "The presence of the t(14;18) is not sufficient
4 for the development of NHL because it can also be found
5 in cells that are nonneoplastic."

6 The very study they're trying to say shows
7 that it didn't cause their cancer is saying you can't
8 use this to establish what causes cancer because you
9 find this mutation in healthy people. Right? This
10 mutation doesn't mean you have NHL. It just doesn't.
11 This is just completely fabricated nonsense.

12 Dr. Weisenburger -- this is a good one. They
13 said to you that none of our experts have ever told
14 another professional that Roundup can cause cancer, that
15 they never told a patient that they're treating that
16 Roundup causes cancer.

17 Do you know how scientists actually tell
18 people? They publish articles, peer-reviewed articles.
19 And they make them available to the public. And you
20 know who the only person who has ever published a
21 peer-reviewed article that testified to you about
22 Roundup and NHL? Is Dr. Weisenburger.

23 Think about that. They're saying he's never
24 told anybody. He's told people through the way you're
25 supposed to, by publishing, making it subject to peer

1 review. It's part of bare backbone science in this
2 case.

3 They took issue with me calling Dr. Levine a
4 hired gun. And you know what? That was unfair. I
5 shouldn't have called her a hired gun. That's probably
6 not fair. She is a very credentialed lymphoma
7 researcher. She's never looked at pesticides before.
8 She actually didn't even know glyphosate was a
9 pesticide. But putting that issue aside, here is my
10 problem with what Dr. Levine did. She looked through
11 all these medical records in seven hours. 3,000 pages
12 in seven hours. That's less than 5 seconds a page. She
13 did her entire review of causation in 17 hours.

14 I mean, you've been here for more than 17
15 hours. You know the science takes more time to digest
16 than that. That's how much it takes to read the IARC
17 monograph, it's so long. Yet she got through the entire
18 issue in 17 hours.

19 So maybe I shouldn't call her a hired gun. I
20 should just say that, when you consider her testimony,
21 take it for what it's worth. And it wasn't full. It
22 was not a robust analysis.

23 One thing that's interesting, they mentioned
24 Australia. We saw testimony that, even though Australia
25 doesn't think it causes cancer, you saw that they've

1 actually banned the use in parks and for residential
2 use. So you saw that. It's actually in the record.

3 The Parry analysis -- well, no. The magic
4 tumor -- sorry, pardon me.

5 **THE COURT:** Oh, wait a minute.

6 **MR. WISNER:** Pardon me, Your Honor. I misread
7 my notes. I apologize. I sincerely apologize. That
8 slipped out. I did not mean to say that.

9 The tumor in the control group, there was an
10 argument that the only person who says it wasn't there
11 was me. That's what Mr. Ismail said to you. And he
12 said it emphatically.

13 Well, that's just not true. I mean, let's
14 look at Exhibit 830. This is shown to you on -- and
15 during trial. This is a guidance document from the EPA.
16 Right on page 10, they actually talk about the entire
17 tumor story. And they say right here. They go through
18 the whole situation. And at the very end: "The agency
19 then requested that additional kidney sections" --
20 right? additional kidney sections -- "from the mouse
21 study be prepared and examined. The resultant
22 microslides were examined by a number of pathologists.
23 These examinations revealed no additional tumors but
24 confirmed the presence of the tumors identified in the
25 original study. The apparent lesion in the control

1 kidney was not present in any of the kidney sections."

2 This is the EPA saying there's no tumor there.
3 We didn't see it. The only ones who saw it were the
4 ones being paid by Monsanto.

5 It's not my words, ladies and gentlemen.
6 That's the EPA's own analysis. This is also the same
7 document where they ordered Monsanto to redo a mouse
8 study.

9 And they showed you some testimony from
10 Dr. Jameson saying that the EPA said you can do a rat
11 study instead of a mouse study. Well, they ordered it.
12 They said get to the bottom of it, and Monsanto never
13 did it.

14 Other people did do mice studies, other
15 registrants, and each one of them found lymphoma, every
16 single one.

17 This issue about Dr. Parry, you know, my
18 argument and my point to you was very simple, that they
19 had their own genotoxicologist in 2000 saying, hey, it's
20 genotoxic; it's formulative; it's causing this problem
21 in cells. And they didn't share that with anybody.
22 Instead, they had the Williams article published, the
23 Williams article that Dr. Heydens said in an email,
24 unequivocally, he ghostwrote. That's the problem.

25 They said, oh, Dr. Parry changed his mind.

1 Well, actually, go back and read that exhibit. It's in
2 evidence. It's 4798. And, if you read that document,
3 it shows you exactly -- I'll just show it to you. This
4 shows exactly what happened. It says right here. The
5 meeting started off tense atmosphere because Parry was
6 irritated by the language used in the aneugenicity
7 section of the Williams, et al., paper. This goes on to
8 detail how they put the screws on him to get him to
9 change his mind.

10 **THE COURT:** Just literally one minute. I have
11 to wrap it up.

12 **MR. WISNER:** Fair enough, Your Honor. I
13 appreciate. Thank you.

14 Last issue is they said there's no evidence of
15 a biomarker. That's just a straw man argument. Every
16 single doctor has told us that you cannot -- it doesn't
17 matter what caused the cancer, it's not going to be in
18 the slide. It's just a complete waste of time.

19 Ladies and gentlemen, you guys are awesome.
20 You guys now have a big job ahead of you. Thank you so
21 much for your time. I know Mr. and Mrs. Pilliod,
22 they're really grateful for everything you've done,
23 everything you have done. And you know what? Go get
24 'em.

25 Thank you.

1 **THE COURT:** So, ladies and gentlemen, I'm
2 going to read the last instructions, which will take
3 about ten minutes.

4 Before I do that, it's important for me to
5 make one comment, which is you are to completely
6 disregard the use of the word "magic" as it related to
7 any comment of the studies that were reconsidered by the
8 EPA. That was a violation of an order that I issued
9 earlier. So I want you to disregard all of that, the
10 final statements that Mr. Wisner made. That was in
11 violation of an order.

12 So having said that, I am going to give you
13 the final instruction, and then I'm going to release you
14 for the day. And I want to thank you for your patience
15 and for hanging in there until we get completely
16 finished with this process.

17 **FINAL JURY INSTRUCTIONS**

18 **THE COURT:** When you go to the jury room, the
19 first thing you should do is choose a presiding juror.
20 The presiding juror should see to it that your
21 discussions are orderly and that everyone has a fair
22 chance to be heard. It is your duty to talk with one
23 another in the jury room and to consider the views of
24 all of the jurors. Each of you must decide the case for
25 yourselves but only after you have considered the

1 evidence with the other members of the jury. Feel free
2 to change your mind if you are convinced that your
3 position should be different. You should all try to
4 agree. But do not give up on your honest beliefs just
5 because others think differently.

6 Please do not state your opinions too strongly
7 at the beginning of your deliberations or immediately
8 announce how you plan to vote as it may interfere with
9 an open discussion. Keep an open mind so that you and
10 your fellow jurors can easily share ideas about the
11 case.

12 You should use your common sense and
13 experience in deciding whether testimony is true and
14 accurate. However, during your deliberations, do not
15 make any statements or provide any information to other
16 jurors based on any special training or unique personal
17 experiences that you may have related to the matters
18 involved in this case. What you may know or have
19 learned through your training or experience is not part
20 of the evidence received in the case.

21 Some jurors disagree or have questions about
22 the evidence or about what the witnesses said in
23 testimony.

24 If that happens, you may have to ask to have
25 testimony read back to you or ask to seek any exhibit

1 admitted into evidence that has not already been
2 provided.

3 All of the exhibits will be provided. You
4 won't have to ask for any.

5 Also, jurors may need further explanation
6 about the laws that apply to the case. If this happens
7 during your discussions, write down your question and
8 give them to the court attendant. I will talk with the
9 attorneys before I answer, so it may take some time.
10 You should continue your deliberations while you wait
11 for my answer. I will do my best to answer them. When
12 you write me a note, do not tell me how you voted on an
13 issue until I ask for this information in open court.

14 Your decisions must be based on your personal
15 evaluation of the evidence presented in the case. Each
16 of you may be asked in open court how you voted on each
17 question.

18 While I know you would not do this, I am
19 required to advise you that you must not base your
20 decision on chance, such as the flip of a coin.

21 If you decide to award damages, you may not
22 agree in advance to simply add up the amounts each juror
23 thinks is right and, then without further deliberations,
24 make the average your verdict.

25 You may take breaks, but do not discuss the

1 case with anyone, including each other, until all of you
2 are back in the jury room.

3 If you have taken notes during the trial, you
4 may take your notebooks with you into the jury room.
5 You may use your notes only to help you remember what
6 happened during the trial. Your independent
7 recollection of the evidence should govern your verdict.
8 You should not allow yourself to be influenced by the
9 notes of other jurors if those notes differ from what
10 you remember. At the end of the trial, your notes will
11 be collected and destroyed.

12 You may request in writing the trial testimony
13 be read to you. I will have the court reporter read the
14 testimony to you. You may request that all or part of a
15 witness's testimony be read. Your request should be as
16 specific as possible, and it will be helpful if you can
17 state the name of the witness, the subject of the
18 testimony you would like to have read, and the name of
19 the attorney or attorneys asking questions when the
20 testimony was given.

21 The court reporter is not permitted to talk
22 with you when she -- he or she is reading the testimony
23 you have requested. While the court reporter is reading
24 the testimony, you may not deliberate or discuss the
25 case. You may not ask the court reporter to read

1 testimony that was not specifically mentioned in a
2 written request. If your notes differ from the
3 testimony, you must accept the court reporter's record
4 as accurate.

5 I will give you verdict forms with the
6 questions you must answer. I have already instructed
7 you on the law that you are to use in answering these
8 questions. You must follow my instructions and the
9 forms carefully. You must consider each question
10 separately.

11 Although you may discuss the evidence and the
12 issues to be decided in any order, you must answer the
13 questions on the verdict form in the order they appear.

14 After you answer the questions, the form tells
15 you what to do next. At least nine of you must agree on
16 an answer before you can move on to the next question.
17 However, the same nine or more people do not have to
18 agree on each answer.

19 All 12 of you must deliberate on and answer
20 each question regardless of how you voted on an earlier
21 question. Unless the verdict form tells all 12 jurors
22 to stop and answer no further questions, every juror
23 must deliberate and vote on all of the remaining
24 questions.

25 When you have finished filling out the forms,

1 your presiding juror must write the date and sign it at
2 the bottom of the last page and then notify the court
3 attendant that you are ready to present your verdict in
4 the courtroom.

5 So while you're deliberating, I'm going to
6 give the presiding juror the folder with the verdict you
7 will turn in. However, each of you will have a copy of
8 the verdict form on a different-colored sheet of paper
9 so that you will have an opportunity to kind of keep
10 track of how you're voting.

11 The jury -- I'm sorry. I'm speaking now to
12 the alternate jurors.

13 The jury will soon begin deliberating, but
14 you're still alternate jurors and are bound by my
15 earlier instructions about your conduct. Until the jury
16 is discharged, do not talk about the case or about any
17 of the people or any subject involved in it with anyone,
18 not even your family or friends and not even with each
19 other.

20 Do not have any contact with the deliberating
21 jurors. Do not decide how you would vote if you were
22 deliberating. And do not form or express an opinion
23 about the issues in the case unless you are substituting
24 for one of the deliberating jurors.

25 After your verdict is read in open court, you

1 may be asked to individually indicate whether the
2 verdict expresses your personal vote. This is referred
3 to as "polling the jury" and is done to ensure that at
4 least nine jurors have agreed to each decision.

5 The verdict forms that you will receive ask
6 you to answer several questions. You must vote
7 separately on each question. Although nine or more
8 jurors must agree on each answer, it does not have to be
9 the same nine jurors for each answer.

10 Therefore, it is important for you to each
11 remember how you voted on each question so that, when
12 this jury is polled, each of you will be able to answer
13 accurately how you voted. And that's why I'm going to
14 give you a separate verdict form for you to keep track
15 of how you're voting on the questions.

16 If, during the trial, any of you had a
17 question that you believe should have been asked of a
18 witness, you were instructed to write out the question
19 and provide it to me through my courtroom staff. I
20 shared your questions with the attorneys, after which I
21 decided whether the questions could be asked. Actually,
22 I shared them with the lawyers, and they were permitted
23 to decide how they wanted to handle your questions.

24 However, if a question was asked and answered,
25 you are to consider the answer as you would any other

1 evidence received in the trial. Do not give the answer
2 any greater or lesser weight because it was initiated by
3 the juror question.

4 If the question was not asked, do not
5 speculate as to what the answer might have been or why
6 it was not asked. There may be many legal reasons why a
7 suggested question cannot be asked of a witness. And do
8 not give the question any further consideration.

9 During the trial, materials have been shown to
10 you to help you explain testimony or other evidence in
11 the case. Some of these materials have been admitted
12 into evidence, and you will be able to review them
13 during your deliberations.

14 Other materials have been shown to you during
15 the trial, but they have not been admitted into
16 evidence. You will not be able to view them during your
17 deliberations because they are not themselves evidence
18 or proof of any facts. You may, however, consider the
19 testimony given in connection with these materials.

20 So those are the closing instructions. I just
21 wanted to say a couple of other things.

22 It is really important, when you are
23 deliberating, to all be in the same room and focused on
24 talking with each other, all 12 of you at the same time.

25 And I don't know if I said this yesterday, but

1 when you finish your conversations, if you're taking a
2 break, stop talking. Don't continue conversations in
3 small groups. If you're walking out of the jury room or
4 even out of the courthouse, don't continue to talk about
5 the case with someone else that you may be going to BART
6 with or to the bus or going to the parking lot. Stop
7 talking about the case immediately when you have broken
8 for a break, broken for lunch, or at the end of the day.

9 And when you leave, as I said, please don't
10 continue to talk about the case with anyone, but also
11 don't talk among each other. So this is really
12 critical. Because this is the point at which we've been
13 working towards for all these weeks so that you can
14 deliberate together and reach a decision. But you all
15 have to be deliberating at the same time and talking
16 about the same things.

17 Furthermore, you know, it will be important
18 for the juror amnesia to kick in. So as soon as you hit
19 that jury room door, juror amnesia. You're not thinking
20 about the case. Talk about something else with a fellow
21 juror.

22 If anyone approaches you during the course of
23 your deliberations at all, please tell the court
24 attendant that someone has approached you or said
25 something to you. I've asked the gallery to be very

1 cooperative about not talking about the case. They're
2 not under the same admonition, but I have asked them not
3 to talk about the case while they're out milling in
4 front of the courtroom. They've been very good about
5 that.

6 I've asked them to remain in the courtroom for
7 a few minutes to allow you all to leave without all
8 being in the hallway or in the elevators at the same
9 time. I'm going to continue to do that.

10 So it's important that you be cognizant of
11 what's going on around you. And I'm hoping, as people
12 are waiting for the verdict, they're also going to be
13 cognizant that you are jurors, which means you keep your
14 badge on so everybody knows that you're a juror and
15 that, when you are present, they are not to discuss
16 anything in your presence.

17 Again, if anything comes up, please feel free
18 to talk to the court attendant, and she will relay any
19 concerns that happen to me. And then I will deal with
20 them as they occur. Okay?

21 So thank you so much. You have been wonderful
22 jurors. We're going to break for the day. And you will
23 begin deliberations tomorrow morning at 9:00.

24 So I will see you tomorrow morning at 9:00.

25 If the gallery could wait for about five

1 minutes to allow the jurors to gather their things and
2 leave.

3 If the alternate jurors would talk to the
4 court attendants and make sure that they have all of
5 your information, cell phone, any means of contacting
6 you. Because, if we need you, we'll need you to come
7 back to court within an hour if they need you. Okay?

8 So thank you.

9 (Court Attendant sworn.)

10 **THE COURT:** Thank you. All right. So we can
11 move off the record.

12 (Proceedings adjourned at 4:49 p.m.)
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25

1 State of California)
2 County of Alameda)

3

4 I, Lori Stokes, Court Reporter at the Superior
5 Court of California, County of Alameda, do hereby
6 certify:

7 That I was present at the time of the above
8 proceedings;

9 That I took down in machine shorthand notes all
10 proceedings had and testimony given;

11 That I thereafter transcribed said shorthand notes
12 with the aid of a computer;

13 That the above and foregoing is a full, true, and
14 correct transcription of said shorthand notes, and a
15 full, true and correct transcript of all proceedings had
16 and testimony taken;

17 That I am not a party to the action or related to a
18 party or counsel;

19 That I have no financial or other interest in the
20 outcome of the action.

21 Dated: May 8, 2019

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Lori Stokes, CSR No. 12732