## Goldstein, Daniel 2018-02-27 Final Played in Court

Goldstein, Daniel 02-27-2018

Total Time 01:01:19



GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court		
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7:1 - 8:2	Goldstein, Daniel 02-27-2018 (00:00:35)	GD2018.1
	7:1 DANIEL A. GOLDSTEIN, M.D.,	
	7:2 of lawful age, having been first duly sworn	
	7:3 to tell the truth, the whole truth and	
	7:4 nothing but the truth, deposes and says on	
	7:5 behalf of the Plaintiff, as follows:	
	7:6	
	7:7 DIRECT EXAMINATION	
	7:8 QUESTIONS BY MR. MILLER:	
	7:9 Q. Good morning.	
	7:10 A. Good morning.	
	7:11 Q. And please state your full	
	7:12 name.	
	7:13 A. Daniel A. Goldstein.	
	7:14 Q. And you're a medical doctor?	
	7:15 A. I am.	
	7:16 Q. I will refer to you then as	
	7:17 Dr. Goldstein.	
	7:18 A. Thank you.	
	7:19 Q. Okay. And you work for the	
	7:20 Monsanto Company?	
	7:21 A. I do.	
	7:22 Q. And how long have you worked	
	7:23 for the Monsanto Company?	
	7:24 A. It will be 20 years in May.	
	7:25 Q. Okay. Part of your job	
	8:1 responsibility at Monsanto is to deal with	
	8:2 complaints and consumer safety; is that fair?	
8:5 - 8:9	Goldstein, Daniel 02-27-2018 (00:00:10)	GD2018.2
	8:5 THE WITNESS: I would narrow	
	8:6 that somewhat. I being a	
	8:7 physician, I'm more focused on	
	8:8 concerns and complaints related to	
	8:9 human health.	
8:14 - 9:8	Goldstein, Daniel 02-27-2018 (00:00:34)	GD2018.3
	8:14 You're also a toxicologist?	
	8:15 A. Yes, an MD toxicologist or a	
	8:16 clinical toxicologist, that is correct.	
	8:17 Q. All right. And so you review	
	8:18 complaints of human health that would come to	

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	8:19 Monsanto from people that perceive rightfully	
	8:20 or wrongfully that a product of Monsanto has	
	8:21 caused them an ill effect; is that a fair	
	8:22 statement?	
	8:23 A. I would review some of them. I	
	8:24 may not see all of them.	
	8:25 Q. I understand.	
	9:1 And how long have you generally	
	9:2 speaking been performing that job function at	
	9:3 Monsanto?	
	9:4 A. The entire time that I've been	
	9:5 with the company.	
	9:6 Q. Okay. And it's a full-time	
	9:7 position at Monsanto?	
	9:8 A. It is.	
14:2 - 14:6	Goldstein, Daniel 02-27-2018 (00:00:10)	GD2018.4
	14:2 Q. And before we look at them, you	
	14:3 and I can agree that before a company sells a	
	14:4 product, it has to do some reasonable attempt	
	14:5 to determine whether that product causes	
	14:6 cancer; isn't that fair?	
14:10 - 14:13	Goldstein, Daniel 02-27-2018 (00:00:08)	GD2018.5
	14:10 THE WITNESS: I don't think I	
	14:11 can state that as a generalization.	
	14:12 It depends on the nature of the	
	14:13 product and its intended use.	
21:10 - 21:14	Goldstein, Daniel 02-27-2018 (00:00:13)	GD2018.8
	21:10 Q. Okay. Have you ever told	
	21:11 anyone that called or reached out to Monsanto	
	21:12 that there was an association reported in the	
	21:13 scientific literature between glyphosate and	
	21:14 any form of non-Hodgkin's lymphoma?	
21:17 - 21:20	Goldstein, Daniel 02-27-2018 (00:00:03)	GD2018.9
	21:17 THE WITNESS: Yes, I have.	
	21:18 QUESTIONS BY MR. MILLER:	
	21:19 Q. And when did you start doing	
21:23 - 22:13	21:20 that?  Coldetoin Deniel 02:27:2018 (00:00:42)	GD2018.10
21.20 22.10	Goldstein, Daniel 02-27-2018 (00:00:42)	352010.10
	21:23 THE WITNESS: I began to do	
	21:24 that after the IARC decision, which	

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	O4 O5 would be see he as in Lawrence and the	
	21:25 would have been in, I guess, early	
	22:1 2015, early 2014	
	22:2 QUESTIONS BY MR. MILLER:	
	22:3 Q. March 2015, I don't mean to	
	22:4 interrupt, but	
	22:5 A. Yeah. Yeah.	
	22:6 So after the IARC decision,	
	22:7 that is the first ever report of such an	
	22:8 allegation that was determined by a an	
	22:9 agency. I won't call it a regulatory agency.	
	22:10 It isn't a regulatory agency. But that	
	22:11 report certainly prompted some concerns and a	
	22:12 number of people called and we discussed that	
	22:13 report.	
43:10 - 43:16	Goldstein, Daniel 02-27-2018 (00:00:17)	GD2018.11
	43:10 Q. And you had said to your other	
	43:11 colleagues that you expected IARC to either	
	43:12 classify glyphosate as a possible human	
	43:13 carcinogen or if things are really bad, a	
	43:14 probable human carcinogen.	
	43:15 Do you remember having that	
	43:16 general conversation?	
43:22 - 44:1	Goldstein, Daniel 02-27-2018 (00:00:10)	GD2018.12
	43:22 THE WITNESS: I stated in a	
	43:23 number of places and in conversations	
	43:24 that that was my expectation; however,	
	43:25 that conclusion is not supported by	
	44:1 the science.	
47:3 - 47:4	Goldstein, Daniel 02-27-2018 (00:00:02)	GD2018.13
	47:3 Have you seen this before, sir?	
	47:4 A. Yes, I have.	DG5.1
61:22 - 61:25	Goldstein, Daniel 02-27-2018 (00:00:06)	GD2018.18
	61:22 Q. One of your jobs at Monsanto is	clear
	61:23 to manage the punitive damage liability	
	61:24 arising from all of this, right,	
	61:25 Dr. Goldstein?	
62:4 - 62:8	Goldstein, Daniel 02-27-2018 (00:00:05)	GD2018.19
	62:4 THE WITNESS: My role is	
	62:5 strictly in a medical capacity. I	
	62:6 don't manage liability.	
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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
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	00.7 (0.414) in February 16.	
	62:7 (Goldstein Exhibit 7 marked for	
62:22 - 63:7	62:8 identification.)	GD2018.20
02.22 - 00.7	Goldstein, Daniel 02-27-2018 (00:00:31)	DG7.1
	62:22 Q. All right. This Exhibit 7 is 62:23 an e-mail sent by you in 2004, June, right,	DG7.1.1
	62:24 sir?	
	62:25 A. Yes, that is correct.	
	63:1 Q. And it's about Roundup, right,	
	63:2 sir?	
	63:3 A. Yes.	
	63:4 Q. And you state here in part,	
	63:5 quote, "Some people take seem to take	DG7.1.3
	63:6 offense at the idea of helping us manage our	
	63:7 punitive damage liability."	
63:15 - 64:2	Goldstein, Daniel 02-27-2018 (00:00:38)	GD2018.21
	63:15 Q. We'll read the whole thing.	
	63:16 This is what you said in June of 2004, quote,	
	63:17 "Some people seem to take offense at the idea	
	63:18 of helping us manage our punitive damage	
	63:19 liability, often without realizing that,	
	63:20 quote, 'doing the right thing,' and quote,	
	63:21 'managing liability,' are oftentimes one and	
	63:22 the same."	
	63:23 Did I read that correctly, sir?	
	63:24 A. You did.	
	63:25 Q. And so would it be fair to say	
	64:1 that managing punitive damages is one of your	
64:6 - 64:16	64:2 job titles, right, sir?	GD2018.22
04.0 - 04.10	Goldstein, Daniel 02-27-2018 (00:00:25)	GD2010.22
	64:6 THE WITNESS: No, that's not	
	64:7 correct. This was part of a	
	64:8 discussion between myself and someone 64:9 at the college of medical toxicology	
	64:10 regarding transmission of information	
	64:11 and the reasons for transmitting that	
	64:12 information. It has nothing to do	
	64:13 with my specific job role at all.	
	64:14 QUESTIONS BY MR. MILLER:	
	64:15 Q. And that was in 2004, right?	clear
	64:16 A. Yes.	

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
Page/Line	Source	ID
72:18 - 72:20	Goldstein, Daniel 02-27-2018 (00:00:05)	GD2018.23
	72:18 Q. One of your jobs,	
	72:19 Dr. Goldstein, was to play Whac-A-Mole with	
	72:20 problems that came up in Roundup, right?	
72:23 - 73:7	Goldstein, Daniel 02-27-2018 (00:00:21)	GD2018.24
	72:23 THE WITNESS: Well, playing	
	72:24 Whac-A-Mole was not part of the job	
	72:25 description. I think it's something	
	73:1 that we use as jargon internally;	
	73:2 issues pop up and we're called upon to	
	73:3 deal with them.	
	73:4 QUESTIONS BY MR. MILLER:	
	73:5 Q. Okay. And issues would pop up	
	73:6 concerning Roundup, right? You played	
	73:7 Whac-A-Mole with those issues, right?	00
73:11 - 73:18	Goldstein, Daniel 02-27-2018 (00:00:10)	GD2018.25
	73:11 THE WITNESS: Issues would come	
	73:12 up and we would endeavor to address	
	73:13 them.	
	73:14 (Goldstein Exhibit 10 marked	
	73:15 for identification.)	
	73:16 QUESTIONS BY MR. MILLER:	
	73:17 Q. Let's take a look at	DG10.1
73:19 - 73:19	73:18 Exhibit 10, an e-mail sent by you and others	GD2018.86
70.19 - 70.19	Goldstein, Daniel 02-27-2018 (00:00:03)	452010.00
73:20 - 74:1	73:19 at Monsanto. A copy for you and counsel.  Goldstein, Daniel 02-27-2018 (00:00:17)	GD2018.85
70.20	73:20 All right. Sir, let's look at	
	73:20 Air right. Sir, let's look at 73:21 the first page. This is an e-mail from you,	DG10.1.1
	73:22 March 3, 2010, Daniel Goldstein, right, sir?	
	73:23 A. Yes.	
	73:24 Q. And it's sent to Eric Sachs and	
	73:25 Donna Farmer, two other employees at	
	74:1 Monsanto, right?	
74:4 - 74:8	Goldstein, Daniel 02-27-2018 (00:00:09)	GD2018.26
	74:4 THE WITNESS: Yes.	
	74:5 QUESTIONS BY MR. MILLER:	
	74:6 Q. And subject matter is another	DG10.1.2
	74:7 mole needing a whacking, right?	
	74:8 A. That is correct, yes.	
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74:14 - 75:7	Caldatain Daniel 00 07 0010 (00.00.42)	GD2018.27
74.14 - 75.7	Goldstein, Daniel 02-27-2018 (00:00:43) 74:14 Q. Did you write this e-mail,	GD2010.27
	74:15 Dr. Goldstein?	
	74:16 A. I wrote the second e-mail down.	
	74:17 I did not create that title. That title or	
	74:18 subject line actually came externally from	
	74:19 Dr. Bruce Chassy.	
	74:20 Q. Let's read the part that you	
	74:21 created. "Two comments. One: Funny you	DG10.1.3
	74:22 should say that, Donna Farmer, glyphosate	
	74:23 tox, and I have been playing"	
	74:24 What, sir?	
	74:25 A. Whac-A-Mole.	
	75:1 Q "for years," right?	
	75:2 A. Yes.	
	75:3 Q. "And calling it just that. We	
	75:4 were joking about it yesterday. "	
	75:5 Did I read that correctly?	
	75:6 A. That's correct. It's humor.	
	75:7 Q. Yes.	
75:17 - 75:19	Goldstein, Daniel 02-27-2018 (00:00:09)	GD2018.28
	75:17 Q. You knew, sir, in 2015 that	clear
	75:18 Monsanto has very limited credibility when	
	75:19 talking about the safety of glyphosate, true?	
75:22 - 76:3	Goldstein, Daniel 02-27-2018 (00:00:08)	GD2018.29
	75:22 THE WITNESS: Like any	
	75:23 manufacturer, we have some limitations	
	75:24 on our credibility when we are	
	75:25 speaking as Monsanto publicly.	
	76:1 (Goldstein Exhibits 11 and 12	
	76:2 marked for identification.)	
	76:3 QUESTIONS BY MR. MILLER:	DG11.1
76:9 - 76:10	Goldstein, Daniel 02-27-2018 (00:00:08)	GD2018.30
	76:9 Exhibit 11. And there's our attachment there	
	76:10 we're going to mark as Exhibit 12.	
76:19 - 76:21	Goldstein, Daniel 02-27-2018 (00:00:06)	GD2018.31
	76:19 And this is an e-mail from John	DG11.1.1
	76:20 Acquavella. You know him, right?	
<b></b>	76:21 A. Yes, I do.	000000
77:4 - 77:19	Goldstein, Daniel 02-27-2018 (00:00:38)	GD2018.32

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
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	77:4 Q. Who's John Acquavella?	
	77:5 A. John Acquavella is an	
	77:6 epidemiologist who at that time would have	
	77:7 been employed at Monsanto.	
	77:8 Q. And one of his jobs was to	
	77:9 review any scientific articles that came out	
	77:10 on the issue of glyphosate and its potential	
	77:11 associations with any condition, fair?	
	77:12 A. Yes.	
	77:13 Q. Okay.	
	77:14 A. I think that's fair.	
	77:15 Q. And so in this May 2000, year	
	77:16 2000, e-mail John Acquavella is writing an	
	77:17 e-mail and its subject is non-Hodgkin's	
	77:18 lymphoma abstract, isn't it, sir?	
	77:19 A. Yes.	
78:17 - 78:20	Goldstein, Daniel 02-27-2018 (00:00:05)	GD2018.33
	78:17 Q. At the meeting where	DG12.1
	78:18 Dr. McDuffie presented her findings in	
	78:19 abstract form?	
	78:20 A. Correct.	
81:24 - 82:15	Goldstein, Daniel 02-27-2018 (00:00:43)	GD2018.34
	81:24 This scientist, Dr. McDuffie,	DG12.1.1
	81:25 together with one, two, three, four, five,	
	82:1 six authors at a scientific meeting on	
	82:2 August 21 of 2000, the date of the document,	
	82:3 looks at non-Hodgkin's lymphoma and certain	
	82:4 agriculture exposures and in B states and	
	82:5 let me read it quote, "More than two days	DG12.1.2
	82:6 per year of exposure to glyphosate resulted	
	82:7 in an OR"	
	82:8 And I'm asking you now, sir,	
	82:9 what is an OR?	
	82:10 A. That would refer to an odds	
	82:11 ratio in this context.	
	82:12 Q. Yes, sir.	
	82:13 "of 2.11"; is that right,	
	82:14 sir?	
	82:15 A. Yes.	
82:22 - 83:2	Goldstein, Daniel 02-27-2018 (00:00:10)	GD2018.35
	,	

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	82:22 A. That is what the document says,	
	82:23 odds ratio 2.11.	
	82:24 Q. Yes, sir.	
	82:25 And with a statistically	
	83:1 significant confidence interval, right? 83:2 A. Yes.	
84:15 - 84:20	Goldstein, Daniel 02-27-2018 (00:00:19)	GD2018.36
	84:15 Q. Well, let me show you a memo	DG13.1
	84:16 prepared by John Acquavella and sent to you	
	84:17 on August 24, 2000, the year 2000, several	
	84:18 days after our last exhibit, discussing this	
	84:19 study and ask you a few questions about it.	
	84:20 Okay?	
84:21 - 84:22	Goldstein, Daniel 02-27-2018 (00:00:06)	GD2018.87
	84:21 Marked as Exhibit 13. A copy	
	84:22 for you, sir, and a copy for counsel.	
84:23 - 85:20	Goldstein, Daniel 02-27-2018 (00:01:10)	GD2018.89
	84:23 Now, this document is marked	DG13.1.1
	84:24 "Monsanto Private."	
	84:25 See that, sir?	
	85:1 A. Yes.	
	85:2 Q. And it's from John Acquavella,	
	85:3 who you've told us was an epidemiologist	
	85:4 employed at the time by Monsanto, right?	
	85:5 A. Yes.	
	85:6 Q. And it was sent to you, among	DG13.1.2
	85:7 others, right? You and Donna Farmer both	
	85:8 received this it looks like?	
	85:9 A. That is correct.	
	85:10 Q. Yes, sir.	
	85:11 It says in paragraph 1 that,	D040.4.0
	85:12 quote, "Non-Hodgkin's lymphoma and the	DG13.1.3
	85:13 pesticide hypothesis: dose response," end	
	85:14 quote, by Helen McDuffie.	
	85:15 Do you see that, and others?	
	85:16 A. Yes.	
	85:17 Q. All right, sir. And what John	DG13.2
	85:18 Acquavella goes on to say about this in the	5010.2
	85:19 year 2000, if you please turn with me to the	DG13.2.1
	85:20 next page, it tells us "additional analysis	

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
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05.04 05.05	0 11 · · · B · · 1 · · · · · · · · · · ·	GD2018.88
85:21 - 85:25	Goldstein, Daniel 02-27-2018 (00:00:15)	GD2010.00
	85:21 found a significant relationship for more	
	85:22 than two days use/year for glyphosate." And	
	85:23 he lists the odds ratio that we discussed in	
	85:24 the last document.	
86:7 - 86:16	85:25 Do you see that, sir?	GD2018.37
00.7 - 00.10	Goldstein, Daniel 02-27-2018 (00:00:26) 86:7 A. Yes, I do.	GD2010.01
	•	
	86:8 Q. And John Acquavella actually	
	86:9 had a chance to speak to the author,	
	86:10 Dr. McDuffie, and he reports on that. He 86:11 tells us, quote, "I had the opportunity to	DG13.2.2
	86:12 spend some time with the author. She struck	
	86:13 me as a reasonable person."	
	86:14 So at least John Acquavella	
	86:15 thought that this scientist who reported this	
	86:16 paper was a reasonable person, right?	
86:19 - 87:2	Goldstein, Daniel 02-27-2018 (00:00:17)	GD2018.38
	86:19 THE WITNESS: I have no idea	
	86:20 what he meant to imply by using that	
	86:21 term.	
	86:22 QUESTIONS BY MR. MILLER:	
	86:23 Q. Well, one thing he expressly	
	86:24 states is, "She doesn't seem to have any	DG13.2.3
	86:25 preconceived notions about glyphosate,"	
	87:1 right?	
	87:2 A. Yes.	
87:3 - 87:3	Goldstein, Daniel 02-27-2018 (00:00:02)	GD2018.90
	87:3 Q. So by the time the article	clear
87:4 - 87:9	Goldstein, Daniel 02-27-2018 (00:00:18)	GD2018.91
	87:4 comes out, the full article, for McDuffie in	
	87:5 November of 2001, you and Donna Farmer were	
	87:6 very happy that if someone searched that	
	87:7 article, they couldn't find glyphosate in the	
	87:8 abstract.	
	87:9 Did you remember that?	
87:12 - 87:24	Goldstein, Daniel 02-27-2018 (00:00:23)	GD2018.39
	87:12 THE WITNESS: I remember that	
	87:13 there was some conversation of that	
	87:14 nature.	

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
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	87:15 (Goldstein Exhibit 14 marked 87:16 for identification.) 87:17 QUESTIONS BY MR. MILLER:	clear
	87:18 Q. Let's take a look at it,	
	87:19 Exhibit 12. I'm sorry, we're going to mark 87:20 this as Exhibit 14. Excuse me, Exhibit 14.	DG14.1
	87:21 This is a series of e-mails	
	87:22 produced by Monsanto. I'm going to ask you a	
	87:23 few questions about them. A copy for you and	
	87:24 counsel.	
87:25 - 88:17	Goldstein, Daniel 02-27-2018 (00:00:38)	GD2018.92
	87:25 So this is on November 29,	DG14.1.1
	88:1 2001?	
	88:2 A. Yes.	
	88:3 Q. From Donna Farmer to John	
	88:4 Acquavella and you and others, right?	
	88:5 A. Yes.	
	88:6 Q. And it's about the McDuffie	
	88:7 article?	
	88:8 A. Correct.	
	88:9 Q. And the subject is glyphosate 88:10 not mentioned in the abstract.	
	88:11 It's still in the article, but	
	88:12 it's not in the abstract, right?	
	88:13 A. Yeah, let me look at the	
	88:14 document for a moment, if I could.	
	88:15 Q. Yes, sir.	
	88:16 A. The formatting is a bit odd, so	
	88:17 it's difficult to read. Okay. Sorry.	
88:18 - 89:6	Goldstein, Daniel 02-27-2018 (00:00:39)	GD2018.93
	88:18 Q. What Donna Farmer was writing	
	88:19 to you and others about at Monsanto was, "I	DG14.1.2
	88:20 know we don't know yet what it says in the	
	88:21 small print, but the fact that glyphosate is	
	88:22 no longer mentioned in the abstract is a huge	
	88:23 step forward. It removes it from being	
	88:24 picked up by abstract searches, exclamation	
	88:25 point."	
	89:1 Do you see that?	
	89:2 A. Yes, I do.	

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		,
	89:3 Q. So she was happy that people	
	89:4 wouldn't be able to find the findings about	
	89:5 glyphosate in an abstract search; that's what	
00.0.00.40	89:6 that says?	GD2018.40
89:9 - 89:13	Goldstein, Daniel 02-27-2018 (00:00:09)	GD2018.40
	89:9 THE WITNESS: I can't tell you	
	89:10 what was in her mind at the time. I	
	89:11 neither wrote it nor agreed with it in	
	89:12 the correspondence, but that is what	
00.44 00.04	89:13 the document says.	GD2018.123
89:14 - 89:21	Goldstein, Daniel 02-27-2018 (00:00:21)	GD2010.123
	89:14 QUESTIONS BY MR. MILLER:	
	89:15 Q. Well, that was on	
	89:16 November 29th. Seven, eight days later you	clear
	89:17 were copied on another e-mail from another	Clear
	89:18 Monsanto employee discussing the same issue	
	89:19 and happy that it wasn't in the abstract any	
	89:20 longer.	
89:24 - 90:8	89:21 Do you remember that?	GD2018.41
09.24 - 90.0	Goldstein, Daniel 02-27-2018 (00:00:23)	GD2010.41
	89:24 THE WITNESS: I don't recall	
	89:25 that without seeing the document.	
	90:1 (Goldstein Exhibit 15 marked	
	90:2 for identification.)	
	90:3 QUESTIONS BY MR. MILLER:	
	90:4 Q. Sure, understandable.	DG15.1.1
	90:5 Here's Exhibit 15, six days	
	90:6 later, an e-mail chain from Donna Farmer to	
	90:7 you and others and there's, we're going to	
90:12 - 90:17	90:8 talk about the bottom here, William Heydens.  Goldstein, Daniel 02-27-2018 (00:00:13)	GD2018.42
00.12 00.17	90:12 So this is an e-mail chain and	
	90:13 the one I want to ask about is from William	DG15.1.2
	90:14 Heydens to you and John Acquavella on	
	90:15 December 6, 2001, about the same issue, the	
	90:16 McDuffie paper.	
	90:17 Do you see that, sir?	
90:20 - 91:15	Goldstein, Daniel 02-27-2018 (00:00:43)	GD2018.43
	90:20 THE WITNESS: Yes.	
	90:20 THE WITNESS. Tes. 90:21 QUESTIONS BY MR. MILLER:	
	CO.E. GOLOTIONO DI WILL WILLEIN.	

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
Page/Line	Source	ID
	90:22 Q. So and who is Bill Heydens	
	90:23 or William Heydens?	
	90:24 A. Bill Heydens is a regulatory	
	90:25 toxicologist.	
	91:1 Q. Employed by Monsanto?	
	91:2 A. Yes, that's correct.	DG15.1.3
	91:3 Q. Okay. And so he writes, "John,	DG15.1.5
	91:4 so if I understand the situation correctly,	
	91:5 even though the reference to glyphosate	
	91:6 wasn't removed entirely, there was a	
	91:7 substantial reduction in emphasis, including,	
	91:8 but not limited to, removal from the	
	91:9 abstract."	
	91:10 Did I read that correctly?	
	91:11 A. You did.	
	91:12 Q. Why was it such a big deal to	
	91:13 make it so people couldn't search abstracts	
	91:14 and find the association between glyphosate	
	91:15 and non-Hodgkin's lymphoma?	
91:21 - 92:2	Goldstein, Daniel 02-27-2018 (00:00:17)	GD2018.44
	91:21 THE WITNESS: Honestly, I don't	
	91:22 know what the writers were thinking at	
	91:23 the time. What matters to me is the	
	91:24 data and so I don't know what the	
	91:25 individuals who were making those	
	92:1 statements at the time were trying to	
	92:2 imply.	clear
92:3 - 92:7	Goldstein, Daniel 02-27-2018 (00:00:12)	GD2018.124
	92:3 QUESTIONS BY MR. MILLER:	clear
	92:4 Q. In 2003, more independent,	
	92:5 scientifically published data came out	
	92:6 showing the association between glyphosate	
	92:7 and non-Hodgkin's lymphoma, true?	
92:10 - 92:20	Goldstein, Daniel 02-27-2018 (00:00:16)	GD2018.45
	92:10 THE WITNESS: I don't remember	
	92:11 the exact dates for the various	
	92:12 publications. If you have a document	
	92:13 that would refresh my memory, it would	
	92:14 be helpful.	
	92:15 (Goldstein Exhibit 16 marked	

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	92:16 for identification.)	
	92:17 QUESTIONS BY MR. MILLER:	
	92:18 Q. I do. Let's look at	D0444
	92:19 Exhibit 16, an e-mail from John Acquavella to	DG16.1
	92:20 you in 2003.	
92:21 - 93:22	Goldstein, Daniel 02-27-2018 (00:00:58)	GD2018.94
	92:21 A. Yes.	
	92:22 Q. So let's take a look at this	
	92:23 e-mail. This is again from the	
	92:24 epidemiologist at Monsanto, John Acquavella,	DG16.1.1
	92:25 right?	
	93:1 A. Correct.	
	93:2 Q. And it's in September of 2003?	
	93:3 A. Yes.	
	93:4 Q. And it's sent to you, Donna	
	93:5 Farmer and others at Monsanto, right, sir?	
	93:6 A. That's correct.	
	93:7 Q. And it's regarding an	
	93:8 article that is regarding non-Hodgkin's	
	93:9 lymphoma and glyphosate and some other	
	93:10 chemical, right?	
	93:11 A. That is correct.	
	93:12 Q. All right, sir.	
	93:13 And it states that it's about	
	93:14 the De Roos paper, which is we'll call	DG16.1.2
	93:15 that 2003 De Roos.	
	93:16 Okay?	
	93:17 A. Yes.	
	93:18 Q. Okay. And it says in pertinent	
	93:19 part that this paper this is a paper from	DG16.1.3
	93:20 investigators at the National Cancer	
	93:21 Institute, right?	
	93:22 A. Correct.	
94:11 - 94:23	Goldstein, Daniel 02-27-2018 (00:00:37)	GD2018.46
	94:11 And what John Acquavella, the	
	94:12 epidemiologist at Monsanto, tells us here is	DG16.1.4
	94:13 that, "Strangely glyphosate looks to be one	
	94:14 of the pesticides most associated with	
	94:15 non-Hodgkin's lymphoma in this analysis."	
	94:16 Did I read that correctly?	
	The state of the s	

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	94:17 A. You did, and then he goes on to	
	94:18 explain the reasons why he finds that to be	
	94:19 unusual.	DG16.1.5
	94:20 Q. And he also states that this is	DG10.1.5
	94:21 going to "add more fuel to the fire for	
	94:22 Hardell."	
05.0 05.0	94:23 Who is Hardell?	GD2018.47
95:2 - 95:9	Goldstein, Daniel 02-27-2018 (00:00:15)	GD2016.47
	95:2 THE WITNESS: Hardell is a	
	95:3 scientist who had previously published	
	95:4 on the topic of non-Hodgkin's lymphoma	
	95:5 and glyphosate.	
	95:6 QUESTIONS BY MR. MILLER:	
	95:7 Q. And Hardell had found an	
	95:8 association in his study between glyphosate	
	95:9 and non-Hodgkin's lymphoma?	05
95:12 - 96:3	Goldstein, Daniel 02-27-2018 (00:00:49)	GD2018.48
	95:12 THE WITNESS: It was reported	
	95:13 in that study. Without looking at the	
	95:14 study, I don't remember the	
	95:15 statistical significance.	
	95:16 QUESTIONS BY MR. MILLER:	
	95:17 Q. John Acquavella, Monsanto's	
	95:18 epidemiologist, closes with, "It looks like	DG16.1.6
	95:19 non-Hodgkin's lymphoma and other	
	95:20 lymphopoietic cancers continue to be the main	
	95:21 cancer epidemiology issues for both	
	95:22 glyphosate," and the other drug, right?	
	95:23 A. The other herbicide.	
	95:24 Q. Yes, another herbicide.	DG16.1.7
	95:25 "We're assembling a panel of	
	96:1 experts to work on this."	
	96:2 Did I read that correct?	
	96:3 A. Yes, you did.	
96:4 - 96:8	Goldstein, Daniel 02-27-2018 (00:00:12)	GD2018.95
	96:4 Q. I'm no scientist, but one way a	clear
	96:5 chemical can cause a cancer is by damaging	
	96:6 the DNA of a cell.	
	96:7 Is that a fair understanding	
	96:8 that us lay people should have?	

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96:11 - 96:18	Goldstein, Daniel 02-27-2018 (00:00:17)	GD2018.49
33.11	96:11 THE WITNESS: That is one	
	96:12 mechanism by which a chemical could	
	96:13 contribute to risk of cancer.	
	96:14 QUESTIONS BY MR. MILLER:	
	96:15 Q. Yes, sir.	
	96:16 And by 2007, you knew it was	
	96:17 old news that glyphosate damaged the DNA of	
	96:18 cells, right, sir?	
96:21 - 97:9	Goldstein, Daniel 02-27-2018 (00:00:29)	GD2018.50
	96:21 THE WITNESS: No, that would be	
	96:22 counter to all of the regulatory	
	96:23 determinations that I'm familiar with.	
	96:24 There certainly is an extensive body	
	96:25 of genotoxicity data, but my belief is	
	97:1 that the weight of the evidence	
	97:2 supports nongenotoxic effect.	
	97:3 (Goldstein Exhibit 17 marked	
	97:4 for identification.)	
	97:5 QUESTIONS BY MR. MILLER:	
	97:6 Q. Let's take a look at an e-mail	DG17.1
	97:7 chain from 2007 between you and others at	
	97:8 Monsanto on this issue. Here's a copy for	
	97:9 you and counsel, sir.	
97:10 - 98:10	Goldstein, Daniel 02-27-2018 (00:01:08)	GD2018.96
	97:10 You've seen this before, right,	
	97:11 sir?	
	97:12 A. Yes, I have.	
	97:13 Q. Let's look at the article that	
	97:14 you and Monsanto employees are discussing,	DG17.2
	97:15 which is the second page of Exhibit 17.	
	97:16 And what it tells us is that	
	97:17 aerial spraying of herbicide damages DNA.	DG17.2.1
	97:18 That's the title anyway, right?	
	97:19 A. Yes.	
	97:20 Q. And what this reports is,	
	97:21 quote, "Aerial spraying of a herbicide by the	DG17.2.2
	97:22 Colombian government on the border of	
	97:23 Colombia and Ecuador has caused a high degree	
	97:24 of DNA damage in local Ecuadorian people	

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	O7-O5 according to the actual of	
	97:25 according to the study."	
	98:1 Right?	
	98:2 A. So this is not a study. This	
	98:3 is a newspaper article	
	98:4 Q. Yes.	
	98:5 A regarding the underlying	
	98:6 study.	
	98:7 Q. That's fair, and thank you for	
	98:8 that clarification, yes.	
	98:9 It's called the Miqo study or	
	98:10 Hermann Miqo study?	
98:14 - 99:9	Goldstein, Daniel 02-27-2018 (00:01:01)	GD2018.51
	98:14 Q. And I can highlight that. "DNA	DG17.2.3
	98:15 damage may activate genes associated to the	
	98:16 development of cancer, lead researcher Cesar	
	98:17 Paz y Migo told sciencedevelopment.net."	
	98:18 A. You had stated it's called the	
	98:19 Migo study. I don't know if that is the	
	98:20 correct first citation for this. I'm not	
	98:21 sure which of several studies it actually is	
	98:22 making reference to.	
	98:23 Q. All right, sir.	
	98:24 In any event, you commented on	
	98:25 the study in the e-mail chain that is	
	99:1 Exhibit 17. I just want to ask you a few	
	99:2 questions about that, sir.	
	99:3 You state actually, Eric	
	99:4 Sachs.	DG17.1.1
	99:5 Now, who is Eric Sachs?	DG17.1.1
	99:6 A. Eric Sachs in 2007, well, he	
	99:7 would have an individual in our scientific	
	99:8 outreach group I believe at that point in	
	99:9 time.	
99:10 - 99:10	Goldstein, Daniel 02-27-2018 (00:00:04)	GD2018.97
	99:10 Q. And what he's telling other	
99:11 - 99:20	Goldstein, Daniel 02-27-2018 (00:00:26)	GD2018.98
	99:11 employees is as he copies you and Donna	DG17.1.2
	99:12 Farmer, "Darren and Andy," these other	
	99:13 employees, he says, quote, "Please engage	
	99:14 Donna and Dan as this is an old issue and	

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	99:15 they have extensive experience and	
	99:16 information on this topic."	
	99:17 Right?	
	99:18 A. Yes.	
	99:19 Q. You had been dealing with this	
00:02 00:04	99:20 issue for a while, fair?	GD2018.52
99:23 - 99:24	Goldstein, Daniel 02-27-2018 (00:00:04)	clear
	99:23 THE WITNESS: It had certainly	Clear
99:25 - 100:9	99:24 come up before, yes.	GD2018.100
99.20 - 100.9	Goldstein, Daniel 02-27-2018 (00:00:38)	GD2010.100
	99:25 (Goldstein Exhibits 18 and 19	
	100:1 marked for identification.)	
	100:2 QUESTIONS BY MR. MILLER:	
	100:3 Q. I want to talk to you now about	
	100:4 the new Hardell paper in 2008 on these issues	
	100:5 and ask you about some e-mails that you sent	
	100:6 or received on the issue, if I can. I have	DG18.1
	100:7 copies for you. I'll mark them as	DG10.1
	100:8 Exhibit 18.	
100:10 - 100:11	100:9 Sir, here are copies of 18 and	GD2018.101
100.10 - 100.11	Goldstein, Daniel 02-27-2018 (00:00:06)	GD2010.101
	100:10 19, the article that these e-mails are	
100:12 - 101:3	100:11 referencing.	GD2018.99
100.12 - 101.3	Goldstein, Daniel 02-27-2018 (00:00:47)	GD2010.55
	100:12 All right, sir. Here we are in	DG18.1.1
	100:13 2008, and Andy Hedgecock, that's an employee	DG10.1.1
	100:14 at Monsanto, right?	
	100:15 A. Yes.	
	100:16 Q. Is e-mailing you and others	
	100:17 about the Hardell, the new Hardell paper,	
	100:18 right?	
	100:19 A. He's actually e-mailing us	
	100:20 about a variety of articles in the scientific	
	100:21 literature that had come out in the preceding	
	100:22 week, among them is this particular paper.	
	100:23 Q. Sure.	DG18.1.2
	100:24 He attached the new Hardell	DG10.1.2
	100:25 paper. He attached something about The	
	101:1 Chicago Tribune raising a global stink,	
	101:2 issues, management, Argentina, and other	

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	101:3 issues, right?	
101:6 - 101:13	Goldstein, Daniel 02-27-2018 (00:00:12)	GD2018.53
	101:6 THE WITNESS: That's correct.	
	101:7 QUESTIONS BY MR. MILLER:	
	101:8 Q. And the importance was high,	DG18.1.3
	101:9 right?	
	101:10 A. That's what he indicated, yes.	
	101:11 Q. Okay. If it was you and Donna	
	101:12 Farmer in the room, it would be we're	
	101:13 playing Whac-A-Mole, aren't we?	
101:16 - 103:4	Goldstein, Daniel 02-27-2018 (00:01:44)	GD2018.54
	101:16 THE WITNESS: No, I wouldn't	
	101:17 characterize this type of response to	
	101:18 epidemiological literature that way,	
	101:19 but we do make an effort to respond to	
	101:20 issues in literature which arises.	
	101:21 QUESTIONS BY MR. MILLER:	
	101:22 Q. And this article by Hardell	DG19.1.1
	101:23 that you're responding to and looking at was	
	101:24 published in a peer-reviewed journal called	
	101:25 the International Journal of Cancer, right?	
	102:1 A. Yes.	
	102:2 Q. And it was by four independent	DG19.1.2
	102:3 scientists, that is, they do not work at	
	102:4 Monsanto, right?	
	102:5 A. Correct, they don't work at	
	102:6 Monsanto.	
	102:7 Q. Okay. And in this	
	102:8 peer-reviewed article entitled, quote,	
	102:9 "Pesticide exposure as risk factor for	DG19.1.3
	102:10 non-Hodgkin's lymphoma including	
	102:11 histopathological subgroup analysis."	
	102:12 You're a doctor. What does	
	102:13 histopathological subgroup analysis mean?	
	102:14 A. They're looking at different	
	102:15 types of non-Hodgkin's lymphoma.	
	102:16 Q. I see. Thank you.	
	102:17 All right. And so what these	
	102:18 independent scientists in this peer-reviewed	
	102:19 journal tell us, if you can please turn to	DG19.5

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
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	102:20 the Bate Stamp 92792, in their peer-reviewed	DG19.3.1
	102:21 study of 2008, they tell us that glyphosate, 102:22 if you use it less than ten days, you have an	5010.0.1
	102:23 increased risk but it's not statistically	
	102:24 significant, is it?	
	102:25 A. No.	D040.0.0
	103:1 Q. However, if you use glyphosate	DG19.3.2
	103:2 greater than ten days per year, it is	
	103:3 statistically significant, right? 103:4 A. Yes.	
105:2 - 105:5	Goldstein, Daniel 02-27-2018 (00:00:11)	GD2018.55
	105:2 Q. What these independent	
	105:3 scientists concluded from their peer-reviewed	
	105:4 study in 2008, if you turn with me to	
	105:5 page 99, please, "Furthermore, our earlier	DG19.6.1
105:6 - 105:12	Goldstein, Daniel 02-27-2018 (00:00:19)	GD2018.102
	105:6 indication of an association between	
	105:7 glyphosate and non-Hodgkin's lymphoma has	
	105:8 been considerably strengthened."	
	105:9 Did I read that correctly?	
	105:10 A. That is what they concluded. I 105:11 would say the data are weak, but that is	
	105:12 their conclusion.	
106:3 - 106:8	Goldstein, Daniel 02-27-2018 (00:00:13)	GD2018.56
	106:3 The scientists at IARC when	
	106:4 they spent a week-plus together evaluating	
	106:5 the science of glyphosate and non-Hodgkin's	
	106:6 lymphoma looked at scientific, public papers;	
	106:7 you understand that, right?	
100.10 100.10	106:8 A. Yes.	CD0049 57
106:12 - 106:13	Goldstein, Daniel 02-27-2018 (00:00:02)	GD2018.57
	106:12 Q. And this Hardell paper was one	
106:15 - 106:16	106:13 of the papers they looked at?  Goldstein, Daniel 02-27-2018 (00:00:01)	GD2018.58
	106:15 THE WITNESS: Yes, that's	
	106:16 correct.	
107:14 - 108:1	Goldstein, Daniel 02-27-2018 (00:00:42)	GD2018.59
	107:14 Q. You know what	clear
	107:15 the Shinasi meta-analysis is?	
	107:16 A. Yes.	

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	107:17 Q. Okay. And it would be fair to	
	107:18 say that the Shinasi meta-analysis well,	
	107:19 first of all, explain to the jury what a	
	107:20 meta-analysis is.	
	107:21 A. So a meta-analysis is a way of	
	107:22 taking different epidemiology studies and	
	107:23 trying to combine those results together in	
	107:24 order to get additional reliability and	
	107:25 additional information by using all of the	
	108:1 available data together.	
109:21 - 110:9	Goldstein, Daniel 02-27-2018 (00:00:34)	GD2018.60
	109:21 My next question: I've handed	DG20.1
	109:22 you Exhibit 20, which is a series of e-mails	
	109:23 between you and others at Monsanto regarding	
	109:24 the Shinasi epidemiological paper, and I'd	
	109:25 like to ask you a few questions about it.	
	110:1 Okay?	
	110:2 A. Yes.	
	110:3 Q. All right, sir.	
	110:4 So this was and here you're	
	110:5 on the e-mail chain regarding this new paper,	DG20.1.1
	110:6 right, sir?	
	110:7 A. Yes, I'm at least on this first	
	110:8 e-mail at the top. I guess that would be the	
	110:9 more recent of the e-mails.	
113:10 - 114:7	Goldstein, Daniel 02-27-2018 (00:01:08)	GD2018.61
	113:10 says about the Shinasi paper, "The data on	
	113:11 glyphosate is also worth looking over.	
	113:12 Table 4, page 4505, summarizes six studies on	DG20.1.2
	113:13 glyphosate and non-Hodgkin's lymphoma, three	
	113:14 or four of which report significant increases	
	113:15 in the risk ratio."	
	113:16 Did I read that correctly?	
	113:17 A. You did, but there was some	
	113:18 serious issues with the quality of work in	
	113:19 this paper. And this data was reanalyzed by	
	113:20 Delzell, and they found a number of	
	113:21 significant statistical errors in their work	
	113:22 and recalculating it in accordance with	
	113:23 their own analysis plan, these relationships	
	1 10.20 their own analysis plan, these relationships	

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		,
	113:24 were no longer anywhere near as statistically	
	113:25 significant.	
	114:1 Q. You know that the Shinasi paper	
	114:2 of 2014, this meta-analysis, was one of the	
	114:3 pieces of scientific evidence upon which IARC	
	114:4 concluded that glyphosate was a probably	
	114:5 associated with non-Hodgkin's lymphoma. It	
	114:6 was one of the pieces of evidence used;	
	114:7 you're aware of that, right?	clear
114:10 - 114:14	Goldstein, Daniel 02-27-2018 (00:00:08)	GD2018.62
	114:10 THE WITNESS: It was cited in	
	114:11 their document, so they had looked at	
	114:12 it, that is correct. I don't think	
	114:13 they looked at everything, but they	
	114:14 had looked at that.	
119:15 - 120:3	Goldstein, Daniel 02-27-2018 (00:00:51)	GD2018.63
	119:15 Q. What is ACSH?	
	119:16 A. The I'm sure it stands for a	
	119:17 number of things, but in this context you're	
	119:18 most likely referring to the American Council	
	119:19 for Science and Health.	
	119:20 Q. What do you understand they do?	
	119:21 A. They put out responses for	
	119:22 public consumption on various scientific	
	119:23 issues relating to public health.	
	119:24 Q. And once the IARC decision came	
	119:25 in, you recommended that Monsanto fund money	
	120:1 to them so that they would write articles	
	120:2 saying IARC was wrong about glyphosate. That	
	120:3 was part of the IARC strategy, right?	
120:7 - 120:19	Goldstein, Daniel 02-27-2018 (00:00:22)	GD2018.64
	120:7 THE WITNESS: No, you've	
	120:8 mischaracterized that.	
	120:9 We support and had supported	
	120:10 ACSH on and off over the years with	
	120:11 various grants. What I believe I	
	120:12 proposed that we do at the time was to	
	120:13 provide them the scientific literature	
	120:14 so that they can create whatever	
	120:15 documents and responses they choose to	
	accuments and responded they encode to	

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	GD2018-Goldstein, Daniel 2018-02-27 Final Played in Court	
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	120:16 create.	DG22.1
	120:17 (Goldstein Exhibit 22 marked	DG22.1
	120:18 for identification.)	
100:05 101:16	120:19 QUESTIONS BY MR. MILLER:	GD2018.65
120:25 - 121:16	Goldstein, Daniel 02-27-2018 (00:00:34)	GD2010.05
	120:25 All right, sir. So this is an	DG22.1.1
	121:1 e-mail from you on February 26, 2015, right,	DG22.1.1
	121:2 sir?	
	121:3 A. Correct.	
	121:4 Q. To other employees at Monsanto,	
	121:5 right?	
	121:6 A. To my leadership in the	
	121:7 regulatory and scientific affairs group, yes.	
	121:8 Q. Okay. Regarding ACSH, right?	
	121:9 A. That is correct.	
	121:10 Q. And what does that stand for	
	121:11 again?	
	121:12 A. The American Council on Science	
	121:13 and Health, I believe.	
	121:14 Q. And they were working with you	
	121:15 to respond to IARC if IARC came out with a	
121:21 - 123:2	121:16 decision Monsanto didn't like, right?	GD2018.66
121.21 120.2	Goldstein, Daniel 02-27-2018 (00:01:13) 121:21 THE WITNESS: They were working	
	121:21 THE WITNESS. They were working 121:22 with us only in the sense that I had	
	121:23 raised this issue with Gil Ross, who	
	121:24 was at ACSH, and asked him if they	
	121:25 would be interested in receiving	
	122:1 information regarding IARC so that	
	122:2 they can prepare to respond.	
	122:3 So we don't decide whether they	clear
	122:4 respond. If they do respond, we do	
	122:5 not generate that content, and they're	
	122:6 quite adamant about those parameters.	
	122:7 So, you know, my point here	
	122:8 really was a plea for funding. I	
	122:9 wanted to keep our funding to ACSH. I	
	122:10 believe that they do a lot of good	
	122:11 work. We don't dictate what they	
	122:12 respond to, and we don't dictate what	
	respond to, and the defit diotate What	

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	122:13 they say.	
	122:14 QUESTIONS BY MR. MILLER:	
	122:15 Q. Let's see what you said in	
	122:16 February of 2015.	
	122:17 What you stated, sir, were,	
	122:18 quote, "They are working with us to respond,	DG22.1.2
	122:19 if needed, to IARC." True?	
	122:20 A. That is correct, it is what I	
	122:21 had said previously. I had contacted Gil,	
	122:22 knowing that the IARC decision was coming,	
	122:23 and offered to provide him a complete set of	
	122:24 information around the glyphosate and cancer	
	122:25 issues.	
	123:1 Q. He wanted you to feed him	
	123:2 information, right?	
123:5 - 123:14	Goldstein, Daniel 02-27-2018 (00:00:28)	GD2018.67
	123:5 THE WITNESS: I raised the	
	123:6 issue with him and offered to provide	
	123:7 the scientific information to ACSH.	
	123:8 QUESTIONS BY MR. MILLER:	
	123:9 Q. And you stated about whether or	
	123:10 not the financial reward would be there with	
	123:11 ACSH for Monsanto, quote, "While I would love	DG22.1.3
	123:12 to have more friends and more choices, we	
	123:13 don't have a lot of supporters and can't	
	123:14 afford to lose the few we have."	
123:24 - 124:18	Goldstein, Daniel 02-27-2018 (00:00:59)	GD2018.68
	123:24 A. Well, as I stated earlier, this	
	123:25 is an argument for continued funding. I was	
	124:1 essentially making the case internally at	
	124:2 that point in time in our budget cycle that	
	124:3 we needed to support ACSH.	
	124:4 Q. You go on to say, quote, "I am	DG22.1.4
	124:5 well aware of the challenges with ACSH and	
	124:6 know Eric has valid concerns, so I can assure	
	124:7 you I am not all starry-eyed about ACSH.	
	124:8 They have plenty of warts."	
	124:9 What are some of their warts?	
	124:10 A. Well, if you look back at them	
	124:11 historically, some of their positions on	
	-	
	124:8 They have plenty of warts." 124:9 What are some of their warts? 124:10 A. Well, if you look back at them	

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	124:12 tobacco, some of their positions on lead, are	
	124:13 not positions that I would agree with. So,	
	124:14 you know, this is an organization that I	
	124:15 think at least in the recent past has done	
	124:16 good quality, science-based work, and I felt	
	124:17 it was useful for us to continue to support	
	124:18 them.	
124:19 - 124:20	Goldstein, Daniel 02-27-2018 (00:00:07)	GD2018.103
	124:19 Q. Let's go a couple pages back,	
	124:20 if we could, sir, to page 9478.	DG22.6
124:21 - 125:17	Goldstein, Daniel 02-27-2018 (00:00:50)	GD2018.104
	124:21 This is an e-mail from you to	DG22.6.1
	124:22 Tracey about the glyphosate IARC assessment,	
	124:23 right, sir?	
	124:24 A. Yes.	
	124:25 Q. This was about eight hours	
	125:1 before the one we just read, right?	
	125:2 A. Yes.	
	125:3 Q. Okay. "Per my discussion with	DG22.0.2
	125:4 John, we had some money set aside for IARC."	
	125:5 What's that mean?	
	125:6 A. I had a budget line in the	
	125:7 proposed budget to continue to support ACSH	
	125:8 in relation to IARC.	
	125:9 Q. Right.	
	125:10 So you thought that you should	
	125:11 go ahead and make that contribution to ACSH,	
	125:12 right?	
	125:13 A. That is correct.	
	125:14 Q. All right. These are the same	
	125:15 people that helped defend the tobacco	
	125:16 companies and the same people that helped	
	125:17 defend the lead companies, right?	
125:20 - 126:12	Goldstein, Daniel 02-27-2018 (00:00:40)	GD2018.69
	125:20 THE WITNESS: They had taken	
	125:21 positions in the past on some of those	
	125:22 issues that I do not fully agree with,	
	125:23 that is correct.	
	125:24 QUESTIONS BY MR. MILLER:	
	125:25 Q. Yes, sir.	
	125.25 Q. 100, 011.	

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	126:1 And let's go to the next page,	
	126:2 page 9479. This, I believe, is a response	DG22.6.3
	126:3 from ACSH to your to you. I want to back	
	126:4 up and make sure I get it accurate.	
	126:5 It's an e-mail from Gilbert	
	126:6 Ross at ACSH, right?	
	126:7 A. Yes.	
	126:8 Q. And to you, right, sir?	
	126:9 A. That is correct.	
	126:10 Q. Regarding glyphosate and the	
	126:11 IARC assessment, right?	
	126:12 A. Yes.	DG22.7.1
128:19 - 129:13	Goldstein, Daniel 02-27-2018 (00:00:58)	GD2018.70
	128:19 "This situation, however,	
	128:20 further illustrates why Monsanto's ongoing	
	128:21 support of ACSH is critical, both for	
	128:22 Monsanto and ACSH."	
	128:23 Did I read that correctly?	
	128:24 A. You did, but you've taken it	
	128:25 out of the context with the remainder of the	
	129:1 paragraph where he talks about providing	
	129:2 information that will help them get further	
	129:3 up to speed on this topic.	
	129:4 So, again, this reflects my	
	129:5 providing them with information that they	
	129:6 would need to do a scientific assessment on a	
	129:7 complex issue.	
	129:8 Q. And in fact, you were able to	
	129:9 persuade your bosses to provide that ongoing	
	129:10 support to ACSH and they, in fact, did write	
	129:11 scientific pieces about the IARC decision of	
	129:12 glyphosate, right?	
	129:13 A. That is correct, yes.	
129:14 - 129:16	Goldstein, Daniel 02-27-2018 (00:00:07)	GD2018.105
120.11	•	
	129:14 Q. One of your key jobs at	
	129:15 Monsanto was to neutralize the impact of the	
129:19 - 130:3	129:16 IARC decision, right, Dr. Goldstein?	GD2018.71
129.19 - 100.0	Goldstein, Daniel 02-27-2018 (00:00:20)	GD2010./1
	129:19 THE WITNESS: I don't think	
	129:20 that's a fair characterization of what	

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	129:21 l did.	
	129:22 (Goldstein Exhibit 23 marked	
	129:23 for identification.)	D000.4
	129:24 QUESTIONS BY MR. MILLER:	DG23.1
	129:25 Q. Let's look at the documents.	
	130:1 We've marked this as	
	130:2 Exhibit 23, a copy for you, sir, and a copy	
	130:3 for counsel and an extra copy.	05
130:4 - 130:8	Goldstein, Daniel 02-27-2018 (00:00:07)	GD2018.106
	130:4 All right. Are you ready, sir?	
	130:5 A. Just give me one more moment	
	130:6 just to look through the center portion of	
	130:7 the document.	
	130:8 Q. Yes, sir.	
130:9 - 131:10	Goldstein, Daniel 02-27-2018 (00:00:54)	GD2018.107
	130:9 A. Go ahead.	
	130:10 Q. All right. Thank you, sir.	
	130:11 Okay. Now we're looking now at	
	130:12 an e-mail sent from Kelly Clauss, a Monsanto	DG23.1.1
	130:13 employee, right?	
	130:14 A. Yes.	
	130:15 Q. In February of 2015, right?	
	130:16 A. Yes.	
	130:17 Q. Where she copies many Monsanto	
	130:18 employees, including you, right?	
	130:19 A. The number of people on here, I	
	130:20 am included, yes.	
	130:21 Q. Including Donna Farmer as well,	
	130:22 I see, right?	
	130:23 A. Correct.	
	130:24 Q. Okay. The importance of this	
	130:25 is high, right?	
	131:1 A. Yes.	
	131:2 Q. And it's regarding IARC	
	131:3 outreach, and attached is an IARC plan,	
	131:4 right?	
	131:5 A. That is correct.	
	131:6 Q. And that plan that's attached	
	131:7 incorporates feedback from three people,	
	131:8 including you, Dan Goldstein, right?	

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	131:9 A. Yes.	
101.11 101.00	131:10 Q. Okay. Let's take a look at the	OD0040 407
131:11 - 131:23	Goldstein, Daniel 02-27-2018 (00:00:34)	GD2018.127
	131:11 plan. One thing you say in your plan is that	
	131:12 IARC is a World Health Organization. That's	
	131:13 what it's part of, right?	clear
	131:14 A. Yes, but let's be clear on who	Clear
	131:15 is saying this. I did not write this plan.	
	131:16 This is so you said "you." I did not	
	131:17 write this plan. I commented on it.	
	131:18 Q. Right.	
	131:19 You read it over and	
	131:20 incorporated feedback into the plan, right?	
	131:21 A. Well, someone else incorporated	
	131:22 the feedback, but I did at some point comment	
132:8 - 132:17	131:23 on this, yes.	GD2018.72
102.0 102.17	Goldstein, Daniel 02-27-2018 (00:00:30)	DG23.3
	132:8 Q. And going to the	2 3.2010
	132:9 Bates-stamped page 63854. In this plan it	
	132:10 shows that IARC, International Agency for 132:11 Research on Cancer, is a World Health	
	•	
	132:12 Organization. It's part of it, right? 132:13 A. It is part of the WHO, yes.	
		DG23.3.1 -
	132:14 Q. It says here, "The	DG23.3.2
	132:15 International Agency for Research on Cancer,	
	132:16 IARC, is a specialized cancer agency of the	
133:5 - 133:15	132:17 World Health Organization," right?	GD2018.73
100.0 - 100.10	Goldstein, Daniel 02-27-2018 (00:00:28)	DG23.3.3
	133:5 Q. In this draft plan it says, "We	2 0.20.0.0
	133:6 should assume and prepare for the outcome of	
	133:7 2B rating, possible human carcinogen; a 2A	
	133:8 rating, probable human carcinogen, is 133:9 possible but less likely."	
	133:10 Did I read that correctly?	
	133:11 A. Yes, you did.	
	133:12 Q. And in fact, what you got two	
	133:13 weeks later was a probable human carcinogen	
	133:14 rating, right?	
	133:15 A. That is correct.	
135:15 - 135:22	Goldstein, Daniel 02-27-2018 (00:00:25)	GD2018.74

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		DC00.7
	135:15 Q. Yes, sir.	DG23.7 - DG23.7.1
	135:16 Attachment A, which is so we	
	135:17 know what this is on that same exhibit.	
	135:18 Attachment A, Preparedness and Engagement	
	135:19 Plan For IARC, Carcinogen Rating of	
	135:20 Glyphosate. "Post-IARC, Monsanto is going to	DG23.7.2
	135:21 orchestrate an outcry with the IARC	
	135:22 decision," right?	
136:5 - 136:11	Goldstein, Daniel 02-27-2018 (00:00:13)	GD2018.75
	136:5 THE WITNESS: That is what the	
	136:6 document says. I can't speak to any	
	136:7 of the specifics. This is a planning	
	136:8 document from public affairs, and	
	136:9 although I commented on it, I don't	
	136:10 know specifically what they mean by	
	136:11 this.	0.00040.70
140:14 - 140:14	Goldstein, Daniel 02-27-2018 (00:00:04)	GD2018.76
	140:14 Q. Let's look at Exhibit 24.	000000000
140:15 - 140:16	Goldstein, Daniel 02-27-2018 (00:00:07)	GD2018.109
	140:15 Exhibit 24, an e-mail chain produced by	DG24.1
140.47	140:16 Monsanto.	GD2018.110
140:17 - 141:1	Goldstein, Daniel 02-27-2018 (00:00:22)	GD2016.110
	140:17 All right, sir?	
	140:18 A. Go ahead.	
	140:19 Q. In this e-mail which was sent	DG24.1.1
	140:20 to you by John Vicini.	5024.1.1
	140:21 Who is he?	
	140:22 A. At that time he was my boss.	
	140:23 Q. Okay. This is about a week or	
	140:24 two after the IARC decision, right, March 25,	
	140:25 2015?	
141:5 - 143:20	141:1 A. Yes.	GD2018.77
141.0 140.20	Goldstein, Daniel 02-27-2018 (00:02:59)	DG24.1.2
	141:5 Q. And it says, "ESH" 141:6 That's the environmental	
	141:7 what's the name of it again?	
	141:8 A. Environmental safety and	
	141:9 health.	
	141:10 Q "medical conference outcome.	
	141:10 G: medical conference outcome.  141:11 I spoke with Annemieke"	
	1-11.11 Topono Will / lillietinene	

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	141:12 Am I pronouncing that?	
	141:13 A. Annemieke.	
	141:14 Q. Annemieke.	
	141:15 And who is Annemieke?	
	141:16 A. Annemieke De Wilde is the head	
	141:17 of occupational medicine.	
	141:18 Q. And where is she located?	
	141:19 A. In St. Louis.	
	141:20 Q. What's her last name?	
	141:21 A. De Wilde, D-e, W-i-l-d-e.	DG24.1.3
	141:22 Q. And says, "She is in alignment	DG24.1.3
	141:23 that we should not concede a cancer hazard.	
	141:24 Some of the ESH folks seemed to be inclined	
	141:25 to go with a message that IARC has identified	
	142:1 a hazard, but dose is low in the plants and	
	142:2 thus no significant risk was present."	DC04.4.4
	142:3 John writes on, "I have	DG24.1.4
	142:4 emphasized the need to hold firm on the,	
	142:5 quote, 'no cancer hazard,' end quote,	
	142:6 position as per the new press release."	
	142:7 First off, did I read that	
	142:8 correctly?	
	142:9 A. Yes, but I believe that that is	
	142:10 correspondence from me, not from John Vicini.	DG24.1.5
	142:11 There's another header in there. It's not as	
	142:12 obvious as the first one.	
	142:13 Q. I'm sorry, you're absolutely	
	142:14 right. I appreciate your clarification.	
	142:15 All right. So that was from	
	142:16 you. And let me ask you about that	
	142:17 paragraph.	
	142:18 Who are the ESH folks that	
	142:19 wanted to go with a message that IARC has	
	142:20 identified a hazard?	
	142:21 A. I don't remember the specific	
	142:22 individuals. At the time, we had	
	142:23 considerable conversation about the need to	
	142:24 communicate with our employees, and	
	142:25 communication to employees would fall within	
	143:1 the scope of our environmental safety and	

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	143:2 health group. So this is something that I	
	143:3 would work in collaboration with them on.	clear
	143:4 And there were two different	clear
	143:5 approaches, and remember that many of these	
	143:6 approaches are coming from industrial hygiene	
	143:7 people who don't understand or know of the	
	143:8 underlying data.	
	143:9 So there was a debate as to	
	143:10 whether we should acknowledge that Roundup	
	143:11 may cause cancer but that a dose response	
	143:12 assessment, a risk assessment, was not done	
	143:13 by IARC and our doses were low, or that we	
	143:14 should remain with what I believe is the	
	143:15 correct assessment, which is glyphosate is	
	143:16 unlikely to cause cancer, that the IARC	
	143:17 classification is incorrect, and that	
	143:18 independent of exposure levels, which, by the	
	143:19 way, are very low anyway, that there is no	
143:24 - 144:1	143:20 risk of cancer to our employees.  Goldstein, Daniel 02-27-2018 (00:00:13)	GD2018.112
	143:24 Q. I want to show you what we've	
	143:25 marked as Exhibit 25, a series of e-mails	DG25.1
	144:1 concerning carcinogens in April of 2016.	
144:2 - 144:3	Goldstein, Daniel 02-27-2018 (00:00:02)	GD2018.114
	144:2 Review it and I have a question	
	144:3 or two.	
144:4 - 146:25	Goldstein, Daniel 02-27-2018 (00:03:41)	GD2018.113
	144:4 A. Yes, go ahead.	
	144:5 Q. Yes, sir.	
	144:6 This is an e-mail from you in	DG25.1.1
	144:7 April of 2016; is that right, sir?	
	144:8 A. Yes.	
	144:9 Q. All right. Who is Erin	
	144:10 Costello?	
	144:11 A. She is in regulatory affairs,	
	144:12 and she's involved in chemical regulation.	
	144:13 Q. And so this is a little over a	
	144:14 year after the IARC ruling or decision,	
	144:15 and she writes you at the bottom of the page.	
	144:16 It says, "Dan, St. Louis ESH is rewriting our	DG25.1.2

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		144:17 chemical safety audit procedure which	
		144:18 includes reviewing carcinogens."	
		144:19 My first question to you is:	
		144:20 What is a chemical safety audit procedure?	
		144:21 A. So this would be an audit on	
		144:22 new incoming chemicals for our facilities.	
		144:23 They're not necessarily products; they could	
		144:24 chemicals for research, for instance. But	
		144:25 when someone submits a request to bring a new	
		145:1 chemical on site, whatever they're doing with	
		145:2 it, there is a process that is site-specific	
		145:3 for evaluating that new chemical.	
		145:4 Q. And that would be conducted by	
		145:5 the ESH team?	
		145:6 A. In general, yes, or they can	
		145:7 ask for assistance if they need it from other	
		145:8 experts within the company, but generally	
		145:9 they're able to conduct that themselves.	
		145:10 Q. You write back to her and you	
		145:11 state in pertinent part, "I am not sure we	DG25.1.3
		145:12 can necessarily take this position given OSHA	
		145:13 right-to-know regulations that require that	
		145:14 we list IARC carcinogenicity on data sheets."	
		145:15 Did I read that correctly?	
		145:16 A. That is correct. That is	
		145:17 written into the regulations in reduction	
		145:18 excuse me, in reference to production of	
		145:19 material safety data sheets.	

145:20 So she's asking basically for

145:21 our audit procedure, should we limit that to

145:22 other sources of information.

145:23 And what I'm saying here is,

145:24 given the current federal law requiring that

145:25 we list IARC on our material safety data

146:1 sheet, I don't believe it is advisable to do

146:2 that. We need to be aware of that. We need

146:3 to consider it appropriately.

146:4 And prior to this, we had

146:5 updated our material safety data sheets to

146:6 note the IARC classification but also noting

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	146:7 that we did not believe that classification	
	146:8 was justified.	
	146:9 Q. But I want to finish reading	
	146:10 that paragraph, which I think speaks to that	DG25.1.4
	146:11 point.	DG23.1.4
	146:12 Quote, "We are altering our	
	146:13 current glyphosate SDS"	
	146:14 Safety data sheet, right?	
	146:15 A. Yes.	DG25.1.5
	146:16 Q "if I understand correctly	5023.1.3
	146:17 to state that IARC classifies glyphosate as a	
	146:18 2A probable human carcinogen, but that we do	
	146:19 not concur with this assessment," right?	
	146:20 A. Correct, that's exactly what I	
	146:21 was saying. In fact, I believe as of this	
	146:22 timing that had already occurred. I can't	
	146:23 say it happened simultaneously on every SDS.	clear
	146:24 We have a lot of them that need to be	Cital
151:2 - 156:10	146:25 updated.	GD2018.128
101.2 - 100.10	Goldstein, Daniel 02-27-2018 (00:04:19)	GD2010.120
	151:2 Q. Good afternoon, Dr. Goldstein.	
	151:3 As you know, my name is Martin	
	151:4 Calhoun, and I represent Monsanto Company in	
	151:5 this case.	
	151:6 Are you employed at Monsanto?	
	151:7 A. Yes, I am.	
	151:8 Q. And what is your current job	
	151:9 title at Monsanto?	
	151:10 A. I am a distinguished science	
	151:11 fellow and lead for medical sciences and	
	151:12 outreach.	
	151:13 Q. And what year did you start	
	151:14 your employment at Monsanto?	
	151:15 A. 1998.	
	151:16 Q. And I just want to go briefly	
	151:17 over your background.	
	151:18 Where and when were you born,	
	151:19 Dr. Goldstein?	
	151:20 A. I was born outside Chicago. I	
	151:21 was born in Aurora, Illinois, 1955.	

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- 151:22 Q. And where did you go to college
- 151:23 for your undergraduate education?
- 151:24 A. Undergraduate, University of
- 151:25 Wisconsin at Madison.
- 152:1 Q. And did you graduate from the
- 152:2 University of Wisconsin?
- 152:3 A. I did. I majored in molecular
- 152:4 biology in December of '76.
- 152:5 Q. Did you then go to medical
- 152:6 school?
- 152:7 A. I did.
- 152:8 Q. Where did you go to medical
- 152:9 school?
- 152:10 A. Johns Hopkins Medical School in
- 152:11 Baltimore.
- 152:12 Q. And did you graduate from
- 152:13 medical school?
- 152:14 A. I did.
- 152:15 Q. And when was that?
- 152:16 A. That would have been 1981.
- 152:17 Q. And after graduating from
- 152:18 medical school, did you do a medical
- 152:19 residency?
- 152:20 A. I did. I did a pediatrics
- 152:21 residency also at Johns Hopkins.
- 152:22 Q. And after that residency, did
- 152:23 you pursue studies in toxicology and
- 152:24 pharmacology?
- 152:25 A. I did. I did a fellowship at
- 153:1 University of Toronto at The Hospital for
- 153:2 Sick Children in Toronto, Canada.
- 153:3 Q. And was that in both toxicology
- 153:4 and pharmacology?
- 153:5 A. Yes, it was two separate
- 153:6 certifications, but I did both.
- 153:7 Q. And did you eventually become a
- 153:8 board certified medical toxicologist?
- 153:9 A. Yes, I did.
- 153:10 Q. And can you just tell us in
- 153:11 simple terms, Dr. Goldstein, what is a

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- 153:12 medical toxicologist?
- 153:13 A. So a medical toxicologist
- 153:14 specializes in the diagnosis and treatment of
- 153:15 poisoning in humans. So it's unlike the
- 153:16 Ph.D. toxicologists who are oftentimes doing
- 153:17 rodent studies and risk assessments, the
- 153:18 focus of clinical toxicology or medical
- 153:19 toxicology is assessment and treatment of
- 153:20 patients.
- 153:21 Q. And after you finished your
- 153:22 education, did you work as a medical
- 153:23 toxicologist treating patients?
- 153:24 A. I did. Yes, I was in Denver
- 153:25 for about 12 years doing a mixture of
- 154:1 critical care toxicology in the intensive
- 154:2 care unit, outpatient toxicology at the
- 154:3 hospital, as well as an office practice in
- 154:4 occupational and environmental medicine.
- 154:5 Q. And have you held various
- 154:6 titles and held -- had various
- 154:7 responsibilities while working at Monsanto
- 154:8 for approximately 20 years?
- 154:9 A. I've had various titles over
- 154:10 the years and had responsibility in a wide
- 154:11 variety of different product areas.
- 154:12 Q. Now. Dr. Goldstein, do vou
- 154:13 consider yourself a scientist?
- 154:14 A. I do, yes.
- 154:15 Q. And have you worked with other
- 154:16 scientists at Monsanto during the 20 years
- 154:17 approximately that you've been at Monsanto?
- 154:18 A. Yes, quite regularly.
- 154:19 Q. And over the years, have other
- 154:20 departments and employees at Monsanto looked
- 154:21 to you for advice and insights about various
- 154:22 toxicology issues?
- 154:23 A. Yes.
- 154:24 Q. And is that how it works at
- 154:25 Monsanto, that there's cooperation and
- 155:1 collaboration among employees and

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	155:2 departments?	
	155:3 A. We're a very open company, so	
	155:4 we tend to address issues by networking with	
	155:5 individuals that may have knowledge or	
	155:6 resources that are useful.	
	155:7 Q. And in your experience, what	
	155:8 has been the role of science at Monsanto over	
	155:9 the years?	
	155:10 A. It's fundamentally a	
	155:11 science-driven company. Product development	
	155:12 is almost entirely driven by science,	
	155:13 especially new science. Product safety	
	155:14 assessment, of course, is also very much a	
	155:15 scientific process.	
	155:16 Q. And, Dr. Goldstein, in the	
	155:17 deposition today we've heard a lot of	
	155:18 questions and answers about glyphosate and	
	155:19 glyphosate-based herbicides.	
	155:20 Have you worked on various	
	155:21 glyphosate issues, including human health and	
	155:22 safety, throughout the approximately 20 years 155:23 that you've been at Monsanto?	
	155:24 A. Yes, I have.	
	155:25 Q. As part of your	
	156:1 responsibilities working at Monsanto, have	
	156:2 you become generally familiar with how	
	156:3 Monsanto developed and evaluated the safety	
	156:4 of glyphosate-based herbicides?	
	156:5 A. Yes, I have.	
	156:6 Q. And about how long have various	
	156:7 kinds of Monsanto glyphosate-based herbicides	
	156:8 been available in this country?	
	156:9 A. They were first marketed in the	
	156:10 US, I believe it was, 1974.	
156:24 - 158:20	Goldstein, Daniel 02-27-2018 (00:02:01)	GD2018.129
	156:24 Q. And please tell the jury in	
	156:25 simple terms what is typically in most of	
	157:1 Monsanto's glyphosate-based herbicides.	
	157:2 A. They're pretty simple	
	157:3 formulations. They have glyphosate, they	

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157:4 have water, and they have a surfactant, a

157:5 detergent, in them as well. And then there's

157:6 very small concentrations of some minor

157:7 formulating ingredients in some products.

157:8 Some of them have a little bit of food

157:9 coloring to add a little bit of color to the

157:10 product and products in them to keep them

157:11 from foaming up when you add water.

157:12 Q. And what is a surfactant in

157:13 simple terms, Dr. Goldstein?

157:14 A. So a surfactant is really just

157:15 a soap or detergent. It's a type of molecule

157:16 that allows fat and water to sort of come

157:17 together. And humans use them mostly in the

157:18 household environment for cleaning things,

157:19 for removing greases and oils or for cleaning

157:20 your hands.

157:21 Q. And why would a surfactant be

157:22 in a glyphosate-based herbicide?

157:23 A. So surfactants in herbicides

157:24 mostly are used to help deliver the herbicide

157:25 into the plant because plants have a waxy

158:1 cuticle, a coating, and so if you try and

158:2 apply something, it just sort of beads up on

158:3 the surface. So we add a surfactant that

158:4 then allows the herbicide to be effective in

158:5 a much, much lower concentration.

158:6 Q. So in essence, does the

158:7 surfactant make the herbicide work better?

158:8 A. It does, yes.

158:9 Q. And are surfactants used for

158:10 products other than Monsanto herbicides?

158:11 A. Yes.

158:12 Q. Can you give us a couple of

158:13 examples, please?

158:14 A. So they're generally present in

158:15 herbicides from Monsanto or other sources,

158:16 but they're common in liquid soaps, shampoos,

158:17 conditioners, laundry detergents, dishwashing

158:18 detergents. So they're an exposure that

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	158:19 human beings regularly have in the context of	
100-1 100-15	158:20 their daily life.	OD0040 400
160:4 - 160:15	Goldstein, Daniel 02-27-2018 (00:00:23)	GD2018.130
	160:4 Q. Is there a federal government	
	160:5 agency that evaluates the safety of	
	160:6 herbicides and decides whether herbicides can	
	160:7 be sold in the United States?	
	160:8 A. Yes, that would be the	
	160:9 Environmental Protection Agency, or EPA.	
	160:10 Q. And during your employment at	
	160:11 Monsanto have you become generally familiar	
	160:12 with the EPA's regulatory review and	
	160:13 evaluation of glyphosate and glyphosate-based	
	160:14 herbicides?	
	160:15 A. Yes, I have.	
160:22 - 161:6	Goldstein, Daniel 02-27-2018 (00:00:20)	GD2018.131
	160:22 Q. And from 1974 to the present	
	160:23 day has Monsanto had EPA approval to sell	
	160:24 glyphosate-based herbicides in the United	
	160:25 States?	
	161:1 A. Yes.	
	161:2 Q. Over the years has the EPA	
	161:3 considered a large volume of data and	
	161:4 scientific studies to evaluate the safety of	
	161:5 glyphosate and glyphosate-based herbicides?	
	161:6 A. Yes.	
161:9 - 162:2	Goldstein, Daniel 02-27-2018 (00:00:51)	GD2018.132
	161:9 THE WITNESS: Yes, they have.	
	161:10 QUESTIONS BY MR. CALHOUN:	
	161:11 Q. Let me rephrase the question.	
	161:12 Can you characterize for us the	
	161:13 volume of data and scientific studies that	
	161:14 EPA has considered or has not considered with	
	161:15 respect to evaluating the safety of	
	161:16 glyphosate and glyphosate-based herbicides?	
	161:17 A. So EPA has at its disposal not	
	161:18 only data from Monsanto but data from other	
	161:19 manufacturers. They get an extensive variety	
	161:20 of information regarding safety, including	
	161:21 animal studies of both short-term and	

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	161:22 long-term toxicity.	
	161:23 So they also then follow on an	
	161:24 ongoing basis the medical literature, so	
	161:25 they're aware of the epidemiology studies and	
	162:1 other human information related to glyphosate	
	162:2 products.	
164:17 - 165:14	Goldstein, Daniel 02-27-2018 (00:00:44)	GD2018.133
	164:17 Q. Now, you've testified earlier	
	164:18 today about the IARC monograph regarding	
	164:19 glyphosate.	
	164:20 Do you recall some of those	
	164:21 questions?	
	164:22 A. Yes.	
	164:23 Q. Let's discuss that a little	
	164:24 bit, including IARC's assessment that	
	164:25 glyphosate is a probable carcinogen.	
	165:1 Do you recall evaluating that	
	165:2 IARC monograph?	
	165:3 A. I do.	
	165:4 Q. And what is your evaluation of	
	165:5 IARC's glyphosate assessment regarding	
	165:6 whether it is based on sound science?	
	165:7 A. It's a poor quality assessment.	
	165:8 It's based on a limited review of the science	
	165:9 relative to regulatory agencies, and I don't	
	165:10 believe that the science supports their	
	165:11 conclusions.	
	165:12 And it's not just me. The same	
	165:13 conclusion has been reached by regulatory	
	165:14 agencies around the world.	
165:17 - 166:18	Goldstein, Daniel 02-27-2018 (00:00:59)	GD2018.134
	165:17 QUESTIONS BY MR. CALHOUN:	
	165:18 Q. In your assessment, is IARC's	
	165:19 glyphosate assessment sound science,	
	165:20 Dr. Goldstein?	
	165:21 A. No.	
	165:22 Q. Can you give us a few examples	
	165:23 of why you think IARC's assessment of	
	165:24 glyphosate is flawed?	
	165:25 A. They look at only a subset of	

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	166:1 the available information. They	
	166:2 cherry-picked the data that they wanted to	
	166:3 focus on rather than looking at the broader	
	166:4 weight of the evidence. They completely	
	166:5 failed to take into account any consideration	
	166:6 of exposure.	
	166:7 And so I think overall, just a	
	166:8 poorly done and incomplete assessment	
	166:9 relative to the regulatory agencies.	
	166:10 Q. And when you're referring to	
	166:11 exposure, are you referring to real world	
	166:12 exposures to glyphosate?	
	166:13 A. Yes. They did not take into	
	166:14 account real world exposure data.	
	166:15 Q. So from a scientific	
	166:16 perspective, do you and Monsanto agree with	
	166:17 IARC's conclusions about glyphosate?	
	166:18 A. No, we do not.	
173:3 - 173:4	Goldstein, Daniel 02-27-2018 (00:00:06)	GD2018.135
	173:3 Q. All right. Let me hand you	
	173:4 what I'm marking as Exhibit 27.	
173:5 - 173:5	Goldstein, Daniel 02-27-2018 (00:00:02)	GD2018.136
	173:5 A. copy for you, Counsel.	
173:6 - 176:7	Goldstein, Daniel 02-27-2018 (00:02:43)	GD2018.137
	173:6 Now, Dr. Goldstein, I've marked	
	173:7 what is Exhibit 27 a study called, quote,	4100.1.1
	173:8 "Glyphosate Use and Cancer Incidence in the	
	173:9 Agricultural Health Study," end quote.	
	173:10 Did I read that correctly?	
	173:11 A. You did, yes.	
	173:12 Q. And have you seen this study	
	173:13 before?	
	173:14 A. I have.	
	173:15 Q. Is this a study that you	
	173:16 referred to shortly in prior testimony	
	173:17 that you referred to it as the Agricultural	
	173:18 Health Study?	
	173:19 A. Yes, it is.	
	173:20 Q. And if you go to the top	4100.1.2
	173:21 right-hand corner of Exhibit 27, do you see	

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	173:22 it states there when this study was first	
	173:23 published?	
	173:24 A. Yes.	
	173:25 Q. And what does that say?	
	174:1 A. It was first published online	
	174:2 November 9, 2017, then went to press in 2018.	
	174:3 Q. And who is the first author on	
	174:4 this study?	
	174:5 A. That is the Andreotti	
	174:6 publication.	
	174:7 Q. All right. So the first author	
	174:8 is Gabriella Andreotti; is that right?	
	174:9 A. That's correct.	
	174:10 Q. And do you see on the first	
	174:11 page it says "affiliations of authors"?	4100.1.3
	174:12 A. Yes.	
	174:13 Q. Are any of the authors that	
	174:14 were involved in the study, do any of them	
	174:15 work at Monsanto?	
	174:16 A. No.	
	174:17 Q. Are these authors all at	
	174:18 various government agencies?	
	174:19 A. They're either at government	
	174:20 agencies or they're in academic institutions.	
	174:21 There's actually a mixture here. Some of	
	174:22 them have left the program and gone to	
	174:23 academic institutions but continue to work	
	174:24 with the Ag Health Study.	
	174:25 Q. To your knowledge, did Monsanto	
	175:1 have anything to do with this study that's	
	175:2 been marked as Exhibit 17 [sic] in terms of	
	175:3 funding or other support for the study?	
	175:4 A. No.	
	175:5 Q. Now, if you go to the	
	175:6 conclusions in the abstract, I'd like to read	4100.1.4
	175:7 that into the record and then I'll ask you	
	175:8 some questions about it.	
	175:9 Conclusions: Quote, "In this	
	175:10 large prospective cohort study, no	
	475.44 consisting was appropriate between which costs	

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175:11 association was apparent between glyphosate

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179:1 - 180:4	175:12 and any solid tumors or lymphoid malignancies 175:13 overall, including NHL and its subtypes,* end 175:14 quote. 175:15 Did I read that correctly? 175:16 A. You did. 175:17 Q. And what does NHL stand for in 175:18 that sentence? 175:19 A. Non-Hodgkin's lymphoma. 175:20 Q. So what does this tell you, 175:21 Dr. Goldstein, about the issue of whether 175:22 glyphosate or glyphosate-based herbicides 175:23 cause non-Hodgkin's lymphoma? 175:24 A. Well, this is very important 175:25 information because it's human information. 176:1 It relates to formulated products and comes 176:2 from the largest and most comprehensive 176:3 prospective study that's ever been done in 176:4 farmers and applicators and their spouses. 176:5 They found no relationship 176:6 between glyphosate exposure and non-Hodgkin's 176:7 lymphoma in this publication. Goldstein, Daniel 02-27-2018 (00:00:55) 179:1 Q. Now, you were shown various 179:2 abstracts and studies earlier in this 179:3 deposition by plaintiff's counsel. 179:4 Do you recall those series of 179:5 questions generally, Dr. Goldstein? 179:6 A. Yes. 179:7 Q. Now, were any of those studies 179:8 sound science regarding the issue of whether 179:9 glyphosate or glyphosate-based herbicides 179:11 A. Taken collectively, no, they're 179:12 not. 179:13 Q. And how about individually, 179:14 were any of them sound science in your view 179:15 and Monsanto's view on the issue of whether 179:19 glyphosate or glyphosate-based herbicides 179:17 cause cancer? 179:18 A. No.	Clear GD2018.138

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	470.40 O New headha EDA haan awar of		
	179:19 Q. Now, has the EPA been aware of		
	179:20 the various studies that plaintiff's counsel		
	179:21 showed you earlier today in this deposition?		
	179:22 A. Yes, definitely.		
	179:23 Q. And did any of those studies		
	179:24 change the EPA's conclusion that glyphosate		
	179:25 is not likely to be carcinogenic to humans?		
	180:1 A. Evidently not. I mean, the		
	180:2 most recent information we have suggests that		
	180:3 they're standing firmly behind that		
	180:4 conclusion.		

Total Time = 01:01:19

## Documents Shown

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DG10

DG11

DG12

DG13

DG14

DG15

DG16

DG17

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