As Played at Pilliod

Martens, Mark 04-07-2017

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10:18 - 11:8	**Martens, Mark 04-07-2017 (00:00:25)** 10:18 Q. Dr. Mart- -- can you please state your 10:19 name for the record. 10:20 A. Mark Martens. 10:21 Q. Okay. And you're a doctor; is that 10:22 correct? 10:23 A. I'm a Ph.D. in pharmaceutical sciences 10:24 and toxicology. 10:25 Q. Okay. Would you prefer I call 11:1 you Dr. Martens or Mr. Martens? 11:2 A. Whatever you like. 11:3 Q. Which would you prefer? 11:4 A. Oh, you can call me Mr. Martens. That's 11:5 fine with me. 11:6 Q. Okay. So, Mr. Martens, have you had your 11:7 deposition taken before? 11:8 A. No.	Martens.1
12:19 - 12:22	**Martens, Mark 04-07-2017 (00:00:10)** 12:19 Q. Okay. So what I've given you is marked 12:20 as Exhibit 9-1 is your CV. Is that an accurate 12:21 version of your CV? 12:22 A. Yes, it is.	Martens.2 MARTENS9-1.1
13:1 - 14:7	**Martens, Mark 04-07-2017 (00:01:02)** 13:1 So it looks like you have some -- some 13:2 areas of expertise; is that correct? 13:3 A. That is correct. 13:4 Q. Okay. And what are your areas of 13:5 expertise? 13:6 A. My areas of expertise throughout my 13:7 career are, you know, toxicology in all its forms. 13:8 That means as well experimental, regulatory, as 13:9 evaluative toxicology. 13:10 Q. Okay. And it looks like you had marked 13:11 down "experimental toxicology, regulatory 13:12 toxicology" -- I missed one -- "hazard and risk 13:13 assessment, and preclinical development" as your past 13:14 and current fields of expertise, correct? 13:15 A. Yes. I can add that when I was at the 13:16 university, I was also involved in forensic 13:17 toxicology.	Martens.3

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	13:18 Q. Okay. So an update to this would be that 13:19 you're also an expert in forensic toxicology? 13:20 A. Yes. 13:21 Q. Okay. Excellent. 13:22 And it looks like -- like you mentioned 13:23 you've gotten your Ph.D. in the school of pharmacy in 13:24 1976; is that correct? 13:25 A. Yes. 14:1 Q. And a rough math is around 40 years ago, 14:2 right? 14:3 A. Right. 14:4 Q. And so you -- 14:5 A. Yep, 45 years ago, yeah. 14:6 Q. 45 years ago? 14:7 A. Yes.	
14:14 - 15:1	**Martens, Mark 04-07-2017 (00:00:32)** 14:14 Q. Okay. And right now, if you move to the 14:15 next page, it looks like your current position is a 14:16 consultant in preclinical development and toxicology; 14:17 is that correct? 14:18 A. That is correct. 14:19 Q. Okay. So can you tell the jury a little 14:20 bit about what -- what your -- what that means, your 14:21 current job right now. 14:22 A. That means that as an independent 14:23 consultant, I'm asked as well by pharmaceutical 14:24 companies, chemical companies and agrochemical 14:25 companies to -- to provide them support in 15:1 interpreting and in analyzing toxicology studies.	**Martens.4** MARTENS9-1.2
15:8 - 15:14	**Martens, Mark 04-07-2017 (00:00:13)** 15:8 Q. Okay. And is -- is Monsanto one of the 15:9 companies that has hired you as a consultant in that 15:10 past seven years? 15:11 A. Yes. 15:12 Q. Okay. And Monsanto has paid you for that 15:13 consulting position over the last seven years? 15:14 A. Yes.	**Martens.5**
15:16 - 16:11	**Martens, Mark 04-07-2017 (00:00:45)** 15:16 A. It's actually the last five years, 15:17 because I was actually contacted by Monsanto in 2011	**Martens.6**

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	15:18 for a first contact.	
	15:19 Q. Okay. So, just so we're on the same	
	15:20 page --	
	15:21 A. Mm-hmm.	
	15:22 Q. -- in 2011, Monsanto contacted you --	
	15:23 A. Mm-hmm.	
	15:24 Q. -- to consult for them; is that --	
	15:25 A. Right.	
	16:1 Q. -- correct?	
	16:2 And what -- what sort of consulting job	
	16:3 were you contacted for in 2011?	
	16:4 A. That was actually for the analysis of	
	16:5 mechanistic studies on another compound than	
	16:6 glyphosate for Monsanto.	
	16:7 Q. Okay. And have you done consulting work	
	16:8 for Monsanto since 2011 on glyphosate?	
	16:9 A. Only the last year.	
	16:10 Q. Okay. So, yes, you have?	
	16:11 A. Yes, I have.	
17:1 - 18:8	**Martens, Mark 04-07-2017 (00:01:21)**	Martens.7
	17:1 Q. So it goes on, your -- your CV goes on to	
	17:2 talk about your current and previous positions. And	
	17:3 if you go through it, it says here that -- and this	
	17:4 is on page 3 of your CV, it says that you were	MARTENS9-1.3
	17:5 promoted to a Monsanto Science Fellow in 2002; is	
	17:6 that correct?	
	17:7 A. That's correct.	
	17:8 Q. And can you tell the jury what that --	
	17:9 what a Monsanto Science Fellow means?	
	17:10 A. A Monsanto Science Fellow is a	
	17:11 distinguished degree as a scientist in the Monsanto	
	17:12 organization.	
	17:13 Q. Okay. So it's a distinguished scientist	
	17:14 within Monsanto, you were promoted to that?	
	17:15 A. Yes. Right.	
	17:16 Q. Okay. And is that a position within	
	17:17 Monsanto?	
	17:18 A. That is not a position. That is a kind	
	17:19 of a degree which should be considered as a parallel	
	17:20 type of career path next to the managerial career	

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	17:21 path and which is reserved for people who are 17:22 continuously involved in scientific projects and 17:23 scientific research. 17:24 Q. So when you were promoted to a Monsanto 17:25 Science Fellow in 2002, were you a current Monsanto 18:1 employee at that time? 18:2 A. Yes. 18:3 Q. Okay. So is -- are the Monsanto Science 18:4 Fellow promotions just for Monsanto employees? 18:5 A. That is just -- well, that is a system 18:6 that exists in every chemical, agrochemical and 18:7 pharmaceutical industry which allows career paths for 18:8 people who want to stick to scientific career paths.	
18:9 - 18:13	**Martens, Mark 04-07-2017 (00:00:17)** 18:9 Q. Okay. You were a toxicology director in 18:10 Europe and Africa for Monsanto starting in 1992 and 18:11 ending in 2004; is that correct? 18:12 A. Actually, I started with Monsanto in 18:13 1989.	Martens.8
18:15 - 19:3	**Martens, Mark 04-07-2017 (00:00:27)** 18:15 A. And then I was hired as a manager of 18:16 toxicology, and then afterwards I was promoted and I 18:17 graduate to director of toxicology, Europe and 18:18 Africa, yeah. 18:19 Q. Okay. So that's a good clarification. 18:20 You began working for Monsanto in 1989? 18:21 A. Yes. 18:22 Q. And when did you quit working for 18:23 Monsanto? 18:24 A. At the end of 2003. 18:25 Q. Okay. So then between 2003 and when they 19:1 hired you to be a consultant in 2011, did you do any 19:2 work with Monsanto? 19:3 A. No.	Martens.9
19:9 - 19:12	**Martens, Mark 04-07-2017 (00:00:08)** 19:9 Q. Okay. And you were actually, it looks 19:10 like, a professor or assistant professor at the -- at 19:11 St. Louis University in St. Louis, correct? 19:12 A. Yes.	Martens.10
19:16 - 19:23	**Martens, Mark 04-07-2017 (00:00:16)**	Martens.11

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	19:16 Q. Okay. And you were teaching toxicology 19:17 to college students. 19:18 A. No, no, not college students. 19:19 Q. Okay. 19:20 A. I was teaching toxicology to medical 19:21 postgraduates, and those were two branches that was 19:22 experimental and occupational and forensic 19:23 toxicology.	
20:5 - 20:10	**Martens, Mark 04-07-2017 (00:00:17)** 20:5 Q. And then you go on to list a few other of 20:6 your toxicology positions, but the bottom line is 20:7 that you have been working in toxicology for 45 20:8 years, and there would be few people that wouldn't 20:9 consider you an expert in toxicology; is that 20:10 correct?	**Martens.12**
20:12 - 20:12	**Martens, Mark 04-07-2017 (00:00:02)** 20:12 THE WITNESS: Yes.	**Martens.13**
20:22 - 21:8	**Martens, Mark 04-07-2017 (00:00:38)** 20:22 On page 5 of your CV, you also have a lot 20:23 of experience with international and national 20:24 organizations. Then you list a couple of pages of 20:25 those, the EU Commission and Council, the OECD 21:1 chemicals group. You go on to list -- list a bunch, 21:2 right? 21:3 On the next page, you have experience 21:4 with IARC, right? 21:5 A. (The witness nods.) 21:6 Q. You have experience with the European 21:7 Council for the chemical industry, if you go down 21:8 there.	**Martens.14** **MARTENS9-1.5** **MARTENS9-1.6**
21:9 - 21:17	**Martens, Mark 04-07-2017 (00:00:20)** 21:9 You also have experience on the next page 21:10 with the European Crop Protection Association where 21:11 it looks like you were participating as a 21:12 representative of Monsanto, correct? 21:13 A. Yes, correct. 21:14 Q. So sometimes you engage with regulatory 21:15 or international associations on behalf of Monsanto; 21:16 is that correct? 21:17 A. Yes.	**Martens.15** **MARTENS9-1.7**

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21:18 - 21:21	**Martens, Mark 04-07-2017 (00:00:08)** 21:18 Q. Okay. And you list -- you go through and 21:19 there's ten organizations that you list, so you have 21:20 experience with international organizations, correct? 21:21 A. That's correct.	Martens.16 clear
23:10 - 23:14	**Martens, Mark 04-07-2017 (00:00:06)** 23:10 Q. Okay. And you lived in the United States 23:11 for two years; is that correct? 23:12 A. Two years, yes. 23:13 Q. And then back to Belgium, correct? 23:14 A. Yes.	Martens.17
23:20 - 24:1	**Martens, Mark 04-07-2017 (00:00:15)** 23:20 Q. Okay. So you also lecture on toxicology 23:21 and related sciences, correct? 23:22 A. Yes. 23:23 Q. And I counted up really quickly that you 23:24 have lectured at about seven institutes or 23:25 universities. Does that sound correct? 24:1 A. That sounds correct, yeah.	Martens.18
24:6 - 24:9	**Martens, Mark 04-07-2017 (00:00:09)** 24:6 Q. Okay. So you've authored -- coauthored a 24:7 book on -- is that on toxicology as well? 24:8 A. This is on preclinical development of -- 24:9 and toxicology is a part of preclinical development.	Martens.19
24:13 - 24:15	**Martens, Mark 04-07-2017 (00:00:05)** 24:13 And then very impressively you speak four 24:14 languages as well, correct? 24:15 A. Yes.	Martens.20
24:24 - 25:8	**Martens, Mark 04-07-2017 (00:00:37)** 24:24 What is oxidative stress? 24:25 A. Oxidative stress is a state of a cell 25:1 where there is a production of free oxygen radicals, 25:2 which are inclined actually to damage several 25:3 molecules in the cell of which DNA. 25:4 Q. Okay. And how long has the scientific 25:5 community known about oxidative stress? 25:6 A. I think that from 1990, '92, there was 25:7 science developing in that direction as a possible 25:8 mechanism of carcinogenicity.	Martens.21
25:16 - 25:24	**Martens, Mark 04-07-2017 (00:00:22)**	Martens.22

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	25:16 Q. Okay. So in the early 1990s, it's fair 25:17 to say that the scientific community was aware that 25:18 oxidative stress could increase -- could -- could 25:19 lead to an increased risk of cancer; is that correct? 25:20 A. That was in the beginning, and, you know, 25:21 there was more and more information that these were 25:22 possible mechanisms for carcinogenicity, yes. 25:23 Q. Sure. And what is the mechanism of how 25:24 oxidative stress can increase the risk of cancer?	
27:7 - 27:22	**Martens, Mark 04-07-2017 (00:00:55)** 27:7 A. Right. So oxidative stress is a state of 27:8 the cell where there is a production of free oxygen 27:9 radicals. Now, free oxygen radicals are a very 27:10 reactive species, molecular species, and they bind to 27:11 the oxidized molecules in the cell of which DNA. So 27:12 oxidation of DNA and there is oxidation of the 27:13 nucleotides in the DNA can lead, after cell division, 27:14 to mutation, which can be a permanent change in the 27:15 gene, and a permanent change in the gene can also 27:16 make changes in gene transcription, which can lead to 27:17 phenotypic change of the cell leading to cancer. 27:18 Q. Excellent. Thank you. 27:19 One other question I -- I have for you is 27:20 the -- the concept of hazard assessment versus risk 27:21 assessment. Are you familiar with those two terms? 27:22 A. Absolutely.	Martens.23
28:2 - 29:17	**Martens, Mark 04-07-2017 (00:01:17)** 28:2 Q. Okay. And is it fair to say that a 28:3 hazard assessment is considering whether an effect 28:4 can happen under any circumstance; is that fair? 28:5 A. That's fair. 28:6 Q. Okay. And is it fair to say that a risk 28:7 assessment is considering under what specific 28:8 circumstance that effect will happen. 28:9 A. Yes. 28:10 Q. Okay. I just wanted to make sure I had 28:11 those -- those straight in my head before we started 28:12 going. 28:13 The first topic we're going to get into 28:14 is, do you know Dr. James -- the late Dr. James	Martens.24

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28:15 Parry?
28:16 A. Yes.
28:17 Q. Did he go by Jim Parry or James?
28:18 A. That was Jim.
28:19 Q. Jim? Okay.
28:20 A. Yeah.
28:21 Q. Dr. Jim Parry. And were you friends with
28:22 him?
28:23 A. Oh, we knew each other from scientific
28:24 congresses. Friends is a little bit too close.
28:25 Q. Okay. You were professional
29:1 acquaintances?
29:2 A. Yes. Put it that way.
29:3 Q. And what was -- was Dr. Parry a
29:4 toxicologist?
29:5 A. He was a toxicologist specializing in
29:6 genetic toxicology.
29:7 Q. Okay. And was he an expert in his field?
29:8 A. Yes.
29:9 Q. Okay. He was a good scientist, correct?
29:10 A. He was a good scientist, yes.
29:11 Q. Okay. And are you -- he has since passed
29:12 away. Has --
29:13 A. Mm-hmm.
29:14 Q. -- has -- am I correct?
29:15 A. Yes.
29:16 Q. I believe sometime in around 2010, '11.
29:17 A. I don't remember.

30:12 - 31:7 **Martens, Mark 04-07-2017 (00:00:38)** Martens.25

30:12 Are you familiar with the Bolognesi paper
30:13 from 1997?
30:14 A. Yes.
30:15 Q. Okay. Am I pronouncing that right?
30:16 A. Bolognesi.
30:17 Q. Bolo -- okay. Bolognesi. The American
30:18 way I'm pronouncing it.
30:19 A. That's okay.
30:20 Q. Okay. Are you familiar with the Peluso
30:21 paper --
30:22 A. Yes.

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	30:23 Q. -- from 1998?	
	30:24 A. Yes.	
	30:25 Q. Okay. And are you familiar with the two	
	31:1 Dr. Lioi papers from -- both from 1998?	
	31:2 A. Yes, I recall that these have been in our	
	31:3 -- are considered, but I -- I didn't actually look at	
	31:4 the papers themselves recently.	
	31:5 Q. Okay. But you're familiar with all four	
	31:6 of those papers --	
	31:7 A. Yes. I know about them, yes.	
31:17 - 32:5	**Martens, Mark 04-07-2017 (00:00:30)**	Martens.26
	31:17 Q. Okay. So all four of these papers deal	
	31:18 with the genotoxicity of glyphosate and/or Roundup,	
	31:19 correct?	
	31:20 A. Correct, yes.	
	31:21 Q. Okay. And you put ourselves -- if we	
	31:22 transport back to the 1999 time period right before	
	31:23 the turn of the century, all four of those papers	
	31:24 came out, correct?	
	31:25 A. Yes.	
	32:1 Q. They were all 1997 to 1999, correct?	
	32:2 A. Yeah, yeah.	
	32:3 Q. Okay. And these papers weren't good for	
	32:4 the genotox profile of glyphosate and Roundup,	
	32:5 correct?	
32:7 - 32:9	**Martens, Mark 04-07-2017 (00:00:06)**	Martens.27
	32:7 THE WITNESS: I will phrase it this way:	
	32:8 They were not in concordance with the existing	
	32:9 results on genotoxicity with -- on glyphosate.	
33:13 - 33:21	**Martens, Mark 04-07-2017 (00:00:26)**	Martens.28
	33:13 So did you go to Monsanto with these	
	33:14 papers or did Monsanto come to you, or do you not	
	33:15 recall because it's been so long?	
	33:16 A. Well, I don't recall that detail, but --	
	33:17 but we both were aware at the same time that these	
	33:18 papers had been published and these needed attention.	
	33:19 Q. Okay. Excellent.	
	33:20 I'm going to hand you what's been -- what	
	33:21 we are going to mark as -- I guess this will be	
34:4 - 34:10	**Martens, Mark 04-07-2017 (00:00:17)**	Martens.29

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	34:4 Q. And when I hand you e-mails,	MARTENS9-2.1
	34:5 Mr. Martens, feel free to take all the time you need	
	34:6 to read them, and if we need to go off the record to	
	34:7 give you more time, we certainly can. Okay? I'm not	
	34:8 trying to rush you through any documents.	
	34:9 A. Okay. Can I read them now?	
	34:10 Q. Sure.	
35:4 - 36:13	**Martens, Mark 04-07-2017 (00:01:32)**	Martens.30
	35:4 So this is a -- these are what the	
	35:5 e-mails from the 19 -- late 1990s look like when	
	35:6 they're printed out. The first e-mail was from Donna	
	35:7 Farmer, and it was written on December 27th, 1998,	
	35:8 which is two days -- two or three days after	
	35:9 Christmas back in 1998.	
	35:10 And who is Donna Farmer?	
	35:11 A. Dr. Farmer is a product toxicologist	
	35:12 located in St. Louis at that time.	
	35:13 Q. Okay. And she still is employed with	
	35:14 Monsanto, correct?	
	35:15 A. I believe so, yes.	
	35:16 Q. And at this time was Dr. Farmer your	
	35:17 boss?	
	35:18 A. No.	
	35:19 Q. No. Was Dr. Farmer on the same sort of	
	35:20 level as you within the hierarchy of Monsanto?	
	35:21 A. At about the same level at that time,	
	35:22 yes.	
	35:23 Q. Okay. And did you and Dr. Farmer work a	
	35:24 lot together at this point?	
	35:25 A. We had for this type of project	
	36:1 communications.	
	36:2 Q. Okay. And did you and Dr. Farmer get	
	36:3 along?	
	36:4 A. Yeah.	
	36:5 Q. Okay. So this looks like Dr. Farmer was	
	36:6 talking about a meeting that y'all had had on	
	36:7 December 17th on mutagenicity; is that correct?	
	36:8 A. That is correct, yes.	
	36:9 Q. And the reason why I think that you were	
	36:10 at this meeting is that you write back to her two	

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	36:11 days later, is that -- or -- yeah, two days later; is 36:12 that correct? If you look above. 36:13 A. Yeah, it seems to be correct, yes.	
36:18 - 37:3	**Martens, Mark 04-07-2017 (00:00:41)** 36:18 Q. So you had a meeting on December 17th of 36:19 1998, and ten days later she writes an e-mail to 36:20 y'all, probably slowed down with the holidays, of 36:21 course, and about what had happened on December 17th. 36:22 And so she has action items from -- 36:23 "Action items from the meeting, from today's call." 36:24 So it looks like she had written that simultaneously, 36:25 and then just circulates that later. 37:1 So MON 35050, what is that? 37:2 A. That is a formulation that has been used 37:3 by Peluso and Bolognesi for their test system.	Martens.31
37:4 - 37:7	**Martens, Mark 04-07-2017 (00:00:08)** 37:4 Q. Okay. So would it be fair to call those 37:5 the Italian papers? Are they both from Italy? 37:6 A. It would be fair to call it the Italian 37:7 formulation.	Martens.32
37:13 - 40:3	**Martens, Mark 04-07-2017 (00:02:27)** 37:13 Q. Okay. So this is the -- this is the 37:14 formulation that was used in the Italian papers, 37:15 correct? 37:16 A. Yes, correct. 37:17 Q. Okay. So you guys are now knowing about 37:18 this, this is in late 1998, and you are talking about 37:19 doing tests on formulation blanks of the Italian 37:20 formulation, correct? 37:21 A. Yes. That was the idea, yeah. 37:22 Q. Okay. And if you turn to the next page, 37:23 and if you go down, we talk about -- this is where 37:24 Dr. Parry is first talked about. 37:25 A. Mm-hmm. 38:1 Q. You have other topics, as you can see, as 38:2 the jury can see, that they had talked about, but in 38:3 relative part, it says that: "Agreed that an 38:4 external global network of genotox experts need to be 38:5 developed." 38:6 Do you see that?	Martens.33 MARTENS9-2.2

38:7 A. Yes.
38:8 Q. Okay. "As EU has an immediate" --
38:9 something there -- "as EU has an immediate need and
38:10 is critical area now, it was agreed that Mark
38:11 Martens" --
38:12 That's you, correct?
38:13 A. Yes.
38:14 Q. -- "would contact Dr. Parry next week to
38:15 discuss with him his participation in the support of
38:16 glyphosate -- glyphosate-based formulations, genotox
38:17 issues." Correct?
38:18 A. Correct.
38:19 Q. And that's because you're an expert in
38:20 toxicology, right?
38:21 A. Yes.
38:22 Q. And Dr. Parry is an expert in genotox --
38:23 toxicology, correct?
38:24 A. Yes.
38:25 Q. So you two would make the perfect pair to
39:1 work on this issue, correct?
39:2 A. That's correct.
39:3 Q. Okay. Then it goes on later to say:
39:4 "For North America, Gary Williams will be here in
39:5 early February as part of the Cantox project."
39:6 Okay. Who is Gary Williams? Do you know
39:7 him?
39:8 A. Yes, I know Gary Williams. He is an
39:9 authority in the United States on the mechanisms of
39:10 carcinogenicity and genotoxicity.
39:11 Q. Okay. And is he a Monsanto employee?
39:12 A. No.
39:13 Q. Do you know, to your knowledge, has he
39:14 ever been a Monsanto employee?
39:15 A. No. Never.
39:16 Q. He never has or you don't know?
39:17 A. He never has to my knowledge, no.
39:18 Q. Okay. And then it says: "Larry Kier
39:19 will -- as" -- as, I think it means to say has --
39:20 "graciously agreed to join in those discussions."
39:21 And who is Larry Kier?

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	39:22 A. Dr. Larry Kier was the head of the 39:23 laboratory of genotoxicology of the Environmental 39:24 Health Laboratory of Monsanto in St. Louis. So he 39:25 was the head genotoxicology expert within the 40:1 organization. 40:2 Q. Okay. And he is a Monsanto employee? 40:3 A. He is a Monsanto employee.	
41:12 - 41:16	**Martens, Mark 04-07-2017 (00:00:11)** 41:12 right. It's a real -- so Dr. Farmer writes: "It's a 41:13 real concern that these papers," meaning the Lioi 41:14 papers, "may create an even bigger problem for us 41:15 than the Peluso paper. Therefore, we do some things 41:16 quickly."	**Martens.34**
41:18 - 41:19	**Martens, Mark 04-07-2017 (00:00:02)** 41:18 THE WITNESS: That is the opinion of 41:19 Dr. Donna Farmer.	**Martens.35**
41:21 - 41:23	**Martens, Mark 04-07-2017 (00:00:07)** 41:21 Q. Okay. And did you have any -- did you 41:22 disagree with that opinion? 41:23 A. I didn't agree completely actually.	**Martens.36**
41:24 - 42:7	**Martens, Mark 04-07-2017 (00:00:26)** 41:24 Q. Okay. Did you agree that the Peluso 41:25 paper created a problem for Monsanto? 42:1 A. I agreed that the Peluso was a new type 42:2 of finding and needed to be addressed. 42:3 Q. Okay. And so one of the ways that -- 42:4 that Monsanto was deciding to address it was to have 42:5 a letter sent from Monsanto Italy or Brussels saying 42:6 that the -- the data doesn't agree with other data. 42:7 A. Mm-hmm.	**Martens.37**
43:2 - 43:3	**Martens, Mark 04-07-2017 (00:00:05)** 43:2 Q. I'm going to hand you what will be marked 43:3 as Exhibit 3.	**Martens.38** **MARTENS9-3.1**
45:8 - 45:19	**Martens, Mark 04-07-2017 (00:00:37)** 45:8 So if you look again at this e-mail 45:9 exhibit, again it's a cascade, and it looks like we 45:10 are about a month later after the last e-mail that we 45:11 looked at. We are now -- Dr. Farmer is now writing 45:12 an e-mail on January 27th, '99, and the last one was 45:13 December 27th, so we're exactly a month later.	**Martens.39** **MARTENS9-3.4**

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	45:14 And she's talking about minutes from a 45:15 meeting on 1/15; is that correct? 45:16 A. Yes. 45:17 Q. Okay. And you were in fact in attendance 45:18 in that meeting. 45:19 A. Yes.	
46:14 - 47:1	**Martens, Mark 04-07-2017 (00:00:26)** 46:14 Number 3 was: "The group recommended 46:15 testing the full formulations." Correct? 46:16 A. That's what it says, yes. 46:17 Q. Okay. And what does the "full 46:18 formulations" mean? 46:19 A. The full formulation is actually the 46:20 active ingredient together with the co-formulants. 46:21 Q. Okay. So Roundup? 46:22 A. For example, yes. 46:23 Q. Okay. Instead of testing just glyphosate 46:24 or just the surfactants, the "full formulation" means 46:25 the finished product of Roundup. 47:1 A. Yes.	**Martens.40** MARTENS9-3.1
47:3 - 47:8	**Martens, Mark 04-07-2017 (00:00:19)** 47:3 And then we -- we scroll down here a 47:4 little bit more, and we talk about: "One of the full 47:5 formulations discussed was MON 35050, which we had 47:6 already determined was the product used in the Peluso 47:7 and Bolognesi papers," which we've called the Italian 47:8 formula.	**Martens.41**
47:10 - 47:23	**Martens, Mark 04-07-2017 (00:00:41)** 47:10 Q. "The team was to develop a positive press 47:11 release." Correct? 47:12 A. That's what it says. 47:13 Q. Okay. And then we get to the next page, 47:14 where we will spend a little bit of time. We had 47:15 touched before about Dr. Parry. This group again, 47:16 which if I can go back to here, in attendance was 47:17 Donna Farmer, which we talked about Dr. Farmer 47:18 earlier, Bill Heydens. 47:19 Can you tell me who Bill Heydens is? 47:20 A. Dr. Bill Heydens was my colleague in the 47:21 United States, mostly responsible in the beginning	**Martens.42** MARTENS9-3.4

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	47:22 for glyphosate, and then after also other products.	
	47:23 He's a toxicologist.	
48:4 - 48:9	**Martens, Mark 04-07-2017 (00:00:14)**	Martens.43
	48:4 Q. And then that's you. And then Alan	
	48:5 Wilson, can you tell me who Alan Wilson is?	
	48:6 A. Alan Wilson was the -- the toxicologist	
	48:7 working at the Environmental Health Laboratory	
	48:8 responsible for biochemical mechanisms and mechanisms	
	48:9 of toxicity.	
48:13 - 49:12	**Martens, Mark 04-07-2017 (00:00:47)**	Martens.44
	48:13 Q. Okay. And was Alan Wilson a Monsanto	
	48:14 employee?	
	48:15 A. Yes.	
	48:16 Q. Okay. So this is a Monsanto meeting,	
	48:17 correct?	
	48:18 A. Yes.	
	48:19 Q. Okay. With all toxicologists.	
	48:20 A. Mm-hmm.	
	48:21 Q. And everyone at that meeting is located	
	48:22 in the United States except for you, correct?	
	48:23 A. Yes.	
	48:24 Q. Okay. Now, if we go back to this -- so	MARTENS9-3.2
	48:25 we're talking about the external global networks of	
	49:1 genotox experts at this meeting, and when talking	
	49:2 about the EU, which is -- you know, what's the EU?	
	49:3 A. The European Union.	
	49:4 Q. Okay. So that would fall under your	
	49:5 purview, correct?	
	49:6 A. Yes.	
	49:7 Q. Okay. We already talked about that	
	49:8 Dr. Parry is a recognized genotox expert, right?	
	49:9 A. Yes.	
	49:10 Q. Okay. What is not known is how he views	
	49:11 some of the nonstandard endpoints. Correct?	
	49:12 A. Yes.	
49:13 - 49:16	**Martens, Mark 04-07-2017 (00:00:08)**	Martens.45
	49:13 Q. Okay. And those nonstandard endpoints	
	49:14 are the endpoints that were evaluated in the Rank	
	49:15 article and the Bolognesi article, correct?	
	49:16 A. Yes.	

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49:17 - 49:20	**Martens, Mark 04-07-2017 (00:00:11)** 49:17 Q. Okay. So your group of Monsanto 49:18 toxicologists were saying that, although Dr. Parry is 49:19 an expert in genotox toxicology, we don't know what 49:20 his views are on this paper, correct?	Martens.46
49:24 - 50:20	**Martens, Mark 04-07-2017 (00:00:52)** 49:24 THE WITNESS: Well, we want to know his 49:25 opinion on these papers. 50:1 BY MS. WAGSTAFF: 50:2 Q. Yeah, you were just saying -- 50:3 A. Yeah. 50:4 Q. -- you don't know -- he is an expert, but 50:5 we don't know what his opinions are, correct? 50:6 A. Yes. 50:7 Q. Okay. And so to figure out his opinions, 50:8 and it says, Before we ask him, meaning Dr. Parry, to 50:9 get more deeply involved, which is reviewing all the 50:10 literature, data, or to represent you as a 50:11 consultant, you wanted to ask Dr. Parry to review a 50:12 subset of the articles, correct? 50:13 A. Right. 50:14 Q. Once again, everyone turns to you, right? 50:15 A. Mm-hmm. 50:16 Q. Okay. So it was proposed that Mark 50:17 Martens, that's you, would contact Dr. Parry and ask 50:18 him for a written review of the articles by Rank, 50:19 Bolognesi, Peluso and Lioi, correct? 50:20 A. Correct.	Martens.47
52:2 - 52:5	**Martens, Mark 04-07-2017 (00:00:11)** 52:2 Q. Okay. And then based on his critique of 52:3 the genotox papers, your group would decide whether 52:4 or not you would expand his role, correct? 52:5 A. Yes.	Martens.48
52:6 - 52:12	**Martens, Mark 04-07-2017 (00:00:21)** 52:6 Q. Okay. Okay. Once again, y'all are 52:7 talking about the Lioi papers, the two Lioi papers, 52:8 and once again, Dr. Farmer says that the Lioi papers 52:9 may present an even bigger problem because the 52:10 studies are with glyphosate and are on a more 52:11 standard endpoints, correct?	Martens.49

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	52:12 A. Yes.	
52:13 - 52:16	**Martens, Mark 04-07-2017 (00:00:07)**	Martens.50
	52:13 Q. Okay. 52:14 A. But the -- I interpreted the Lioi paper 52:15 and came to the conclusion it's a very low quality 52:16 paper.	
52:23 - 53:4	**Martens, Mark 04-07-2017 (00:00:18)**	Martens.51
	52:23 Q. But as of right now, we're sitting here 52:24 in January of -- of '99, this group of Monsanto 52:25 toxicologists are once again stating that because 53:1 it's a standard -- has more standard endpoints, the 53:2 Lioi presents an even bigger problem for Monsanto; is 53:3 that correct? 53:4 A. That is correct.	
53:5 - 53:7	**Martens, Mark 04-07-2017 (00:00:09)**	Martens.52
	53:5 Q. Okay. If we then move on to the 53:6 beginning, because, remember, we've got to go 53:7 backwards on this.	
53:15 - 53:17	**Martens, Mark 04-07-2017 (00:00:13)**	Martens.53 MARTENS9-3.4
	53:15 Q. Okay. So in response to Dr. Farmer 53:16 writing these notes, you respond, correct? 53:17 A. That's what I see, yes.	
54:12 - 54:13	**Martens, Mark 04-07-2017 (00:00:04)**	Martens.54
	54:12 Q. It said that you were in agreement with 54:13 the discussion that you had in St. Louis, correct?	
54:16 - 54:17	**Martens, Mark 04-07-2017 (00:00:02)**	Martens.55
	54:16 THE WITNESS: Yeah, it was reflecting the 54:17 meeting.	
54:19 - 55:10	**Martens, Mark 04-07-2017 (00:00:41)**	Martens.56
	54:19 Q. And then you also told the 54:20 group that in the meantime you contacted Dr. Parry, 54:21 and a letter of authorization with his papers -- with 54:22 the papers is underway to him, correct? 54:23 A. Mm-hmm. Yes, that is what it says. 54:24 Q. Okay. So you were acting on the 54:25 decisions that had been made at that meeting, 55:1 correct? 55:2 A. Yes. 55:3 Q. Okay. Oh, and it said that -- I forgot 55:4 an important part -- it said a report is expected by	

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	55:5 mid-February.	
	55:6 So we're now sitting here in January	
	55:7 of -- of -- 28th, and so you're telling the group	
	55:8 that Dr. Parry will have his report within a few	
	55:9 weeks, correct?	
	55:10 A. That's what it says, yes.	
57:12 - 58:1	**Martens, Mark 04-07-2017 (00:00:34)**	**Martens.57**
	57:12 Q. All right. So, here we are two weeks	
	57:13 later, and this is a fax sent on February 15th --	MARTENS9-4.1
	57:14 because in Europe you put the month and date opposite	
	57:15 of us, correct?	
	57:16 A. Yes.	
	57:17 Q. -- 1999, and it's a fax from you, from	
	57:18 Dr. Mark Martens, and the subject is "Dr. Parry's	
	57:19 Report," correct?	
	57:20 A. Correct.	
	57:21 Q. And you are sending it to Alan Wilson,	
	57:22 Donna Farmer and Bill Heydens, correct?	
	57:23 A. Correct.	
	57:24 Q. So you're sending it to everyone that was	
	57:25 at that meeting a few weeks earlier.	
	58:1 A. Yes.	
58:3 - 58:15	**Martens, Mark 04-07-2017 (00:00:35)**	**Martens.58**
	58:3 And you say: "Dear Alan, Donna and Bill:	
	58:4 Please find herewith Professor Parry's evaluation of	
	58:5 the four papers." Correct?	
	58:6 A. Yes.	
	58:7 Q. And what were those four papers?	
	58:8 A. That was the Lioi paper, the Peluso	
	58:9 paper, the Bolognesi and the Rank paper.	
	58:10 Q. Okay. And you said you sent him on	
	58:11 genotoxicity of glyphosate and Roundup, correct?	
	58:12 A. Yes.	
	58:13 Q. Okay. And you're asking for comments and	
	58:14 guidance on what to do next, correct?	
	58:15 A. Yes.	
58:19 - 59:3	**Martens, Mark 04-07-2017 (00:00:30)**	**Martens.59**
	58:19 Q. Okay. And so the next page of this	MARTENS9-4.2
	58:20 document appears to be a cover sheet from Dr. Parry	
	58:21 to you. Correct?	

Page/Line	Source	ID
	58:22 A. Yes. 58:23 Q. Okay. Professor James M. Parry. Where 58:24 was he a professor? 58:25 A. At Swansea university in the U.K. 59:1 Q. Okay. And he wrote you this on 59:2 February 11th, 1999, to Dr. Martens, correct? 59:3 A. Yes.	
60:9 - 60:22	**Martens, Mark 04-07-2017 (00:00:33)** 60:9 Q. Okay. And he goes through the papers 60:10 that Monsanto asked him to review, correct? 60:11 A. Yes. 60:12 Q. Okay. And the first one is the Rank, 60:13 et al., paper and that was in 1993, right? 60:14 A. Right. 60:15 Q. Okay. And this is a Roundup mixture that 60:16 was tested, correct? 60:17 A. Yes. 60:18 Q. Okay. And the conclusion that Dr. Parry 60:19 found was that: "In vitro evidence of genotoxic 60:20 effect for Roundup mixtures inadequate in vivo 60:21 studies." 60:22 So tell me what "in vitro" means.	**Martens.60** MARTENS9-4.5
61:6 - 61:18	**Martens, Mark 04-07-2017 (00:00:30)** 61:6 A. In vitro testing occurs normally with 61:7 cells or bacteria or tissues in culture. So that 61:8 means literally in vitro, you know, either in petri 61:9 dishes or in culture dishes. 61:10 Q. Okay. And that's an accepted method of 61:11 conducting studies, correct? 61:12 A. Yes. 61:13 Q. Okay. In toxicology that's very 61:14 accepted? 61:15 A. Yes. 61:16 Q. Okay. And so Dr. Parry's conclusion was: 61:17 "In vitro evidence of genotoxic effect for Roundup 61:18 mixture," right?	**Martens.61**
61:24 - 62:5	**Martens, Mark 04-07-2017 (00:00:18)** 61:24 Q. That was the conclusion that Dr. Parry 61:25 came to? 62:1 A. That was his conclusion, yes. Mm-hmm.	**Martens.62**

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	62:2 Q. Okay. And then next we looked at the --	
	62:3 one of the Italian papers, which is Bolognesi, and	
	62:4 that was from a couple of years later in 1997, right?	MARTENS9-4.6
	62:5 A. Yes.	
62:13 - 62:16	**Martens, Mark 04-07-2017 (00:00:10)**	**Martens.63**
	62:13 And his conclusions were Dr. Parry found	
	62:14 a positive response in vitro SCE for both compounds.	
	62:15 And the both compounds being glyphosate	
	62:16 and Roundup, correct?	
62:20 - 62:20	**Martens, Mark 04-07-2017 (00:00:01)**	**Martens.64**
	62:20 THE WITNESS: Yes.	
62:22 - 63:8	**Martens, Mark 04-07-2017 (00:00:25)**	**Martens.65**
	62:22 Q. Okay. So in -- in the Bolognesi test,	
	62:23 the authors were studying both glyphosate and	
	62:24 Roundup, correct?	
	62:25 A. That's correct.	
	63:1 Q. Okay. So when Dr. Parry is talking in	
	63:2 his conclusions about, quote, both compounds, he's	
	63:3 referencing glyphosate and Roundup, correct?	
	63:4 A. Yes.	
	63:5 Q. Okay. So Dr. Parry -- Dr. Parry	
	63:6 concluded that there was a positive response in vitro	
	63:7 SCE for both glyphosate and Roundup, correct?	
	63:8 A. That's what it says.	
63:15 - 63:17	**Martens, Mark 04-07-2017 (00:00:08)**	**Martens.66**
	63:15 Q. And SCE is another marker looking at the	
	63:16 structure of genetic material, correct?	
	63:17 A. That is sister chromatid exchanges.	
63:18 - 63:23	**Martens, Mark 04-07-2017 (00:00:14)**	**Martens.67**
	63:18 Q. Okay. And it --	
	63:19 A. This is an indicator top of test of which	
	63:20 the biological mechanism is unknown and with some	
	63:21 kind of experimental endpoint which was not accepted	
	63:22 by regulatory authorities for assessment of	
	63:23 genotoxicity.	
64:7 - 64:10	**Martens, Mark 04-07-2017 (00:00:07)**	**Martens.68**
	64:7 Q. Dr. Parry concluded that the response was	
	64:8 at ten times lower concentration for Roundup mixture,	
	64:9 correct?	
	64:10 A. That's what he said, yes.	

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65:3 - 65:14	**Martens, Mark 04-07-2017 (00:00:32)**	Martens.69
	65:3 Q. Dr. Parry concluded that both glyphosate 65:4 and Roundup mixture produced an increase in DNA 65:5 strand breaks in mouse liver and kidney, correct? 65:6 A. That's what he says, yes. 65:7 Q. Okay. And next he found that glyphosate 65:8 increased 8-OHdG in mouse liver, which is a marker of 65:9 oxidative stress, correct? 65:10 A. Yes. 65:11 Q. Okay. And then he found that the Roundup 65:12 mixture increased O dash -- or 8-OHdG in mouse liver 65:13 and kidney, correct? 65:14 A. Yes.	
65:20 - 66:21	**Martens, Mark 04-07-2017 (00:01:05)**	Martens.70
	65:20 Q. So he concluded oxidative stress -- 65:21 Dr. Parry concluded oxidative stress with respect to 65:22 glyphosate and with respect to Roundup, correct? 65:23 A. Yes, that was what he concluded, yes. 65:24 Q. Okay. And this was in 1999, correct? 65:25 A. Yes.	
	66:1 Q. Okay. Next we're moving to the Peluso	MARTENS9-4.7
	66:2 paper, which was one of the Italian papers we 66:3 discussed, and we talk about the conclusion that 66:4 Dr. Parry found for the Peluso paper. And that is 66:5 that Roundup mixture produced an increase in DNA 66:6 adducts in the mouse liver and kidney, correct? 66:7 A. Yes, that was what he concluded. 66:8 Q. Okay. And then let's move over to -- 66:9 A. May I -- may I say -- 66:10 Q. Sure. 66:11 A. -- something? 66:12 He also concluded that there was no 66:13 increase in the production of DNA adducts in the 66:14 presence of glyphosate. 66:15 Q. Sure. 66:16 A. And that's important. 66:17 Q. That's fair. Okay. Sure. 66:18 So -- so what you're saying is that he -- 66:19 he determined that with glyphosate there wasn't, but 66:20 with Roundup mixture there was?	

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	66:21 A. Yes.	
66:23 - 66:23	**Martens, Mark 04-07-2017 (00:00:05)**	**Martens.71**
	66:23 Next if we turn to the Lioi 1998 paper,	
66:24 - 67:4	**Martens, Mark 04-07-2017 (00:00:22)**	**Martens.72**
	66:24 and if you turn the page to 00 and you look at 66:25 conclusions there, it looks that Dr. Parry found -- 67:1 or Dr. Parry concluded that there was an increase in 67:2 the chromatid aberrations of SCE following glyphosate 67:3 exposure, correct? 67:4 A. That is what he concluded, yes.	MARTENS9-4.8
67:5 - 67:11	**Martens, Mark 04-07-2017 (00:00:25)**	**Martens.73**
	67:5 Q. Okay. Now if you turn to 01, we're 67:6 talking about his conclusions still, and he found -- 67:7 Dr. Parry found sister chromatid exchanges induced in 67:8 human lymphocytes by both glyphosate and Roundup 67:9 mixture, correct? 67:10 A. That's what he found -- that's what he 67:11 concluded, yes.	MARTENS9-4.9
67:13 - 67:23	**Martens, Mark 04-07-2017 (00:00:25)**	**Martens.74**
	67:13 And he also concluded that the Roundup 67:14 mixture produced a positive result at a lower 67:15 concentration, correct? 67:16 A. That is what he concluded, yes. 67:17 Q. So Dr. Parry concluded that the Roundup 67:18 mixture and the glyphosate alone would often produce 67:19 different results, correct? 67:20 A. That indeed, yes. 67:21 Q. Okay. And this was back in 1999 that 67:22 this was concluded, correct? 67:23 A. Yes.	
68:15 - 68:23	**Martens, Mark 04-07-2017 (00:00:17)**	**Martens.75**
	68:15 Q. And would you tell the jury, please, what 68:16 "in vivo" means. 68:17 A. In vivo means that an experiment is 68:18 carried out in live animals. 68:19 Q. Okay. 68:20 A. In whole organisms. 68:21 Q. Okay. And in vivo is an accepted method 68:22 of testing in toxicology, correct? 68:23 A. Yes.	MARTENS9-4.10

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69:2 - 69:8	**Martens, Mark 04-07-2017 (00:00:21)**	Martens.76

69:2 Q. So if we are looking at his -- at
69:3 Dr. Parry's conclusions about in vivo studies, he
69:4 states: "Both glyphosate and Roundup mixture
69:5 produced positive results in the mouse bone marrow
69:6 micronucleus assay," and then he cites a study that
69:7 he has pulled that conclusion from, correct?
69:8 A. That's the Bolognesi study.

69:11 - 71:1	**Martens, Mark 04-07-2017 (00:01:17)**	Martens.77

69:11 Q. Then he -- if you go down to the next
69:12 paragraph, it says: "The data of Bolognesi indicate
69:13 that glyphosate is a probable in vivo genotoxin."
69:14 Correct?
69:15 A. That is his conclusion.
69:16 Q. Correct. This is Dr. Parry's conclusion.
69:17 A. Yes.
69:18 Q. So Dr. Parry's conclusion in 1999 is that
69:19 the data of the Bolognesi indicate that glyphosate is
69:20 a probable in vivo genotoxin, correct?
69:21 A. What he wanted -- meant to -- what he
69:22 meant to say is a potential.
69:23 Q. Well, he didn't say "potential," did he?
69:24 A. No, no. Well, but that's a question of
69:25 wording; just to make sure that people understand it
70:1 right, that is a potential genotoxin.
70:2 Q. All right. Well, we'll never know if
70:3 that's what he meant or not because he is not around
70:4 to tell us that --
70:5 A. Exactly, mm-hmm.
70:6 Q. -- and he -- he was -- scientists are
70:7 precise, correct?
70:8 A. He was a scientist, yes.
70:9 Q. And scientists -- when you're a
70:10 scientist, you need to be precise with your words,
70:11 correct?
70:12 A. Well, not in evaluative words. There may
70:13 be a different choice of words, but yeah.
70:14 Q. Okay. But Dr. Parry chose not to put in
70:15 the word "potential," correct?
70:16 A. He may have chosen as well "potential."

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	70:17 Q. Did you take out the word "potential"?	
	70:18 A. No.	
	70:19 Q. This is the form that the -- this is the	
	70:20 form that it came in --	
	70:21 A. Oh, yeah.	
	70:22 Q. -- and he did not put "potential," did	
	70:23 he?	
	70:24 A. No, no. He put the words as he put it.	
	70:25 Q. Okay.	
	71:1 A. So we cannot change it.	
71:25 - 73:3	**Martens, Mark 04-07-2017 (00:01:14)**	**Martens.78**
	71:25 Q. Okay. Next page, if you go to 03, it	MARTENS9-4.11
	72:1 says: "The overall" -- are you there?	
	72:2 A. Yeah.	
	72:3 Q. Okay. "The overall data provided by the	
	72:4 four publications produce evidence to support a model	
	72:5 that glyphosate is capable of producing genotoxicity,	
	72:6 both in vivo and in vitro, by a mechanism based upon	
	72:7 the production of oxidative damage."	
	72:8 Is that Dr. Parry's conclusion in 1999?	
	72:9 A. Yes.	
	72:10 Q. That was given to Monsanto, correct?	
	72:11 A. Yes.	
	72:12 Q. Okay. And the question raised by these	
	72:13 studies are that the -- this is what Dr. Parry is	
	72:14 telling you and some of your toxicology expert	
	72:15 colleagues, correct?	
	72:16 A. Mm-hmm.	
	72:17 Q. Is that the role of components of mixture	
	72:18 which leads to high levels of activity of Roundup, he	
	72:19 is questioning the genotoxic activity observed due to	
	72:20 oxidative damage, correct? And the genotoxic -- and	
	72:21 can that activity be reduced by anti -- antioxidants,	
	72:22 correct?	
	72:23 A. Yes.	
	72:24 Q. So his recommendations and questions were	
	72:25 kind of similar to what you said earlier was that	
	73:1 these studies raised new questions that needed to be	
	73:2 studied, correct?	
	73:3 A. Yes, that's correct.	

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73:4 - 73:6	**Martens, Mark 04-07-2017 (00:00:03)** 73:4 Q. So you were in agreement with Dr. Parry 73:5 that that's sort of what needed to happen, correct? 73:6 A. Right. Can I point --	Martens.79
73:9 - 73:22	**Martens, Mark 04-07-2017 (00:00:18)** 73:9 THE WITNESS: Can I point to a sentence 73:10 which is important -- 73:11 BY MS. WAGSTAFF: 73:12 Q. Sure. 73:13 A. -- which you didn't mention? 73:14 Q. Sure. 73:15 A. That he said -- you know, after you 73:16 mentioned the sentence: "Based upon production of 73:17 oxidative damage" -- 73:18 Q. Yeah. 73:19 A. -- he said, "If confirmed." 73:20 Q. Mm-hmm. 73:21 A. So that means that he has a hypothetical 73:22 conclusion and he was seeking confirmation.	Martens.80
73:25 - 74:9	**Martens, Mark 04-07-2017 (00:00:11)** 73:25 Q. Doctor, that's fair, because -- and 74:1 that's confirmed when it says raised -- questions 74:2 raised by the study -- 74:3 A. Mm-hmm. Right. 74:4 Q. -- he is saying that there is more 74:5 questions and more tests that need to be done, which 74:6 is what you had said when we started -- 74:7 A. Yes. 74:8 Q. -- talking about this, correct? 74:9 A. That's correct.	Martens.81
74:10 - 74:24	**Martens, Mark 04-07-2017 (00:00:58)** 74:10 Q. So you were in agreement with Dr. Parry? 74:11 A. Yes. In that sense, yes. 74:12 Q. Okay. All right. And in fact, if you 74:13 turn to 04, which is the next page, this paper is 74:14 signed by Dr. Parry. 74:15 And actually, B, Dr. Parry recommends 74:16 that there be tests to determine if -- he recommends 74:17 that there is an assessment of the individual 74:18 components of Roundup mixture to determine whether	Martens.82 MARTENS9-4.12

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	74:19 there is any components which act synergistically to 74:20 increase the potential genotoxicity of glyphosate. 74:21 So let's unpack that sentence a little 74:22 bit since you're an expert in toxicology. Can you 74:23 explain to me what it means when components act 74:24 synergistically?	
74:25 - 75:7	**Martens, Mark 04-07-2017 (00:00:12)** 74:25 A. When components act -- this is a 75:1 hypothesis -- 75:2 Q. Yeah, yeah. 75:3 A. -- put forward by Dr. Parry. 75:4 Q. I just want to know what synergistic -- 75:5 A. Yes. That means that one component is 75:6 over -- inclined to strengthen the toxicological 75:7 effect of another component of the synergism.	Martens.83
75:23 - 77:3	**Martens, Mark 04-07-2017 (00:01:06)** 75:23 Q. And I'm asking -- we're talking 75:24 hypothetically still. I'm not asking you what 75:25 Dr. Parry meant because we can all read the same 76:1 words on the paper. I'm saying -- 76:2 A. Well, I give you an example -- 76:3 Q. Okay. 76:4 A. -- just to clarify. 76:5 A. synergistic effect may be, for example, 76:6 if a co-formulant produces an inflammatory process, 76:7 that inflammatory process produces free oxygen 76:8 radicals. If there is a slight synergism with the 76:9 other component, then you may have some kind of a 76:10 combined effect that may be more prominent than the 76:11 effects caused separately. 76:12 Q. Okay. That makes sense. 76:13 And so Dr. Parry is suggesting an 76:14 assessment of the individual components of the 76:15 Roundup mixture, which you have already told me are 76:16 the active ingredient, which is glyphosate and some 76:17 surfactants, correct? 76:18 A. Yes, that's correct. 76:19 Q. Okay. So he's -- he's saying assess 76:20 those components to see if they act synergistically 76:21 when they are together, correct?	Martens.84

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	76:22 A. Right. Yes.	clear
	76:23 Q. All right. And -- and this is a -- these	
	76:24 are all conclusions and recommendations that were	
	76:25 sent to Monsanto toxicologists in February of 1999,	
	77:1 correct?	
	77:2 A. Yes.	
	77:3 Q. Okay.	
77:9 - 77:10	**Martens, Mark 04-07-2017 (00:00:02)**	Martens.85
	77:9 THE WITNESS: Can I -- can I -- can I	
	77:10 just say something?	
77:15 - 77:24	**Martens, Mark 04-07-2017 (00:00:13)**	Martens.86
	77:15 Q. Okay. All right.	
	77:16 A. There is something that is very important	
	77:17 to mention --	
	77:18 Q. Uh-huh.	
	77:19 A. -- also in -- in the report of Dr. Parry	
	77:20 is that he also lists the flaws of the studies that	
	77:21 they've been published. So --	
	77:22 Q. Sure.	
	77:23 A. Okay. So it's important you are aware of	
	77:24 this.	
79:2 - 79:13	**Martens, Mark 04-07-2017 (00:00:43)**	Martens.87
	79:2 Q. And it -- it was February 15th of 1999,	MARTENS9-5.1
	79:3 and so here what I have marked as Exhibit 5 is an	
	79:4 e-mail from Dr. Donna Farmer. If you look at the	
	79:5 page that starts with 06 is the e-mail cascade. And	MARTENS9-5.2
	79:6 it is -- although it is written on April 19th, Donna	
	79:7 Farmer states that these are the meeting minutes from	
	79:8 February 25th, correct?	
	79:9 A. Yes.	
	79:10 Q. Okay. So this is actually a meeting that	
	79:11 occurred ten days after Dr. Parry had -- and you had	
	79:12 circulated the Parry report, correct?	
	79:13 A. Correct.	
80:3 - 80:20	**Martens, Mark 04-07-2017 (00:00:57)**	Martens.88
	80:3 Q. So you guys have now had this report for	
	80:4 about ten days, and you are meeting to discuss the	
	80:5 next step, correct?	MARTENS9-5.3
	80:6 A. Yes.	
	80:7 Q. Okay. And Dr. Farmer reiterates to you	

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	80:8 all that: "Dr. Parry concluded on his evaluation of 80:9 the four articles that glyphosate is capable of 80:10 producing genotoxicity, both in vivo and in vitro, by 80:11 a mechanize -- by a mechanism based upon the 80:12 production of oxidative damage." Correct? 80:13 A. That's correct. 80:14 Q. Okay. And we had talked about that 80:15 before. And that evaluation was based on material 80:16 that you all had provided Dr. Parry, correct? 80:17 A. Yes. 80:18 Q. Okay. And was Dr. Farmer and was the 80:19 group of people that met happy with Dr. Parry's 80:20 report?	
80:22 - 80:22	**Martens, Mark 04-07-2017 (00:00:01)** 80:22 THE WITNESS: No.	**Martens.89**
82:15 - 83:14	**Martens, Mark 04-07-2017 (00:01:03)** 82:15 Q. All right. So moving on, Dr. Farmer 82:16 continues to say: "As a follow-up, Mark will contact 82:17 Dr. Parry, discuss with him the existence of 82:18 additional data, and ask him to evaluate the full 82:19 package." 82:20 Mark is you, correct? 82:21 A. Yes. 82:22 Q. Mark is Dr. Mark Martens. Okay. 82:23 "Mark will also explore his interests," 82:24 meaning Dr. Parry's interests, parentheses, "if we 82:25 can turn his opinion around, in being a spokesperson 83:1 for us on these types of issues." Correct? 83:2 A. That's correct. 83:3 Q. Okay. So, Dr. Martens, you were tasked 83:4 with following up with Dr. Parry and getting him 83:5 additional data to see if you could turn his opinion 83:6 around, correct? 83:7 A. I will rephrase that. It was actually 83:8 providing, you know, supplementary data so that he 83:9 could put that in his findings into a context of the 83:10 existing data. 83:11 Q. Right. And turn his opinion around, 83:12 correct? It's the words that Donna Farmer used, not 83:13 me.	**Martens.90**

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	83:14 A. These are the words of Donna Farmer.	
85:2 - 85:3	**Martens, Mark 04-07-2017 (00:00:04)**	Martens.91
	85:2 MS. WAGSTAFF: This is going to be marked	MARTENS9-6.1
	85:3 as Exhibit 6.	
85:12 - 85:15	**Martens, Mark 04-07-2017 (00:00:10)**	Martens.92
	85:12 Q. Okay. So were you aware that the	
	85:13 toxicologists that were in the United States thought	
	85:14 that you did not do a good job with Dr. Parry?	
	85:15 A. No.	
85:18 - 85:21	**Martens, Mark 04-07-2017 (00:00:07)**	Martens.93
	85:18 Q. Okay. Were you aware that they no longer	
	85:19 wanted you to be the one interacting with Dr. Parry	
	85:20 after his report came out?	
	85:21 A. No.	
86:1 - 86:19	**Martens, Mark 04-07-2017 (00:00:54)**	Martens.94
	86:1 Who is Stephen Wratten?	MARTENS9-6.2
	86:2 A. Stephen Wratten was a -- a product	
	86:3 registration manager in the United States.	
	86:4 Q. Okay.	
	86:5 A. In charge of glyphosate.	
	86:6 Q. Okay. And so Steve Wratten writes an	
	86:7 e-mail on October 31st, 1999, which is a few months	
	86:8 after Dr. Parry had given you his report, correct?	
	86:9 A. Yes.	
	86:10 Q. And he writes an e-mail, and it's called	
	86:11 "Comments on Parry write-up," and he writes the	
	86:12 e-mail to you, to Donna Farmer, to Dr. Larry Kier,	
	86:13 who we talked about.	
	86:14 A. Mm-hmm.	
	86:15 Q. We talked about Will -- Bill Heydens, and	
	86:16 then who's -- who's William Graham?	
	86:17 A. Graham, William, is -- was the -- the	
	86:18 glyphosate product registration manager for Europe,	
	86:19 Africa.	
87:6 - 87:21	**Martens, Mark 04-07-2017 (00:00:42)**	Martens.95
	87:6 So Dr. Wratten writes to Mark, that's	
	87:7 you, and Donna, which is Dr. Farmer, and says --	
	87:8 talking about comments on the Parry write-up: "I was	
	87:9 somewhat disappointed in the Parry report."	
	87:10 Do you see that?	

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	87:11 A. Yes. 87:12 Q. Okay. And Dr. Wratten says: "Not 87:13 particularly with his conclusions but just the way 87:14 that they're presented." Correct? 87:15 A. Yes, I see that. 87:16 Q. Okay. And then he goes on to provide -- 87:17 one, two, three, four, five, six, seven, eight -- 87:18 eight suggestions on how he can improve his report; 87:19 is that correct? 87:20 A. Well, these were comments. I see them as 87:21 comments.	
88:2 - 88:7	**Martens, Mark 04-07-2017 (00:00:12)** 88:2 Okay. So -- so Dr. Wratten writes that 88:3 he's not particularly disappointed in the conclusions 88:4 but just the way they're presented, and he gives 88:5 eight comments on how to improve the Parry report, 88:6 correct? 88:7 A. To some extent, yes.	**Martens.96**
88:8 - 88:13	**Martens, Mark 04-07-2017 (00:00:23)** 88:8 Q. Okay. And then at the very end, Steve 88:9 Wratten writes, and still talking about the Parry 88:10 report: "I do not see that he has stuck his neck out 88:11 at anything at all controversial, and therefore there 88:12 is little value in the write-up as written that could 88:13 be useful. Hope it didn't cost much."	**Martens.97** MARTENS9-6.3
88:15 - 89:7	**Martens, Mark 04-07-2017 (00:01:00)** 88:15 "Perhaps this is too harsh, and I don't 88:16 know what your proposal to him was, but I would -- 88:17 but I guess I would expect more than this of a 88:18 professor." Correct? 88:19 A. That's what he said, yes. 88:20 Q. Okay. And did that upset you receiving 88:21 that e-mail? 88:22 A. Not really. 88:23 Q. No. 88:24 A. Because I was also a little bit 88:25 disappointed about the form of the report. 89:1 Q. Okay. So he also asks you and Dr. Farmer 89:2 if Dr. Parry has ever worked with industry before on 89:3 this sort of project, correct?	**Martens.98** MARTENS9-6.2

Page/Line	Source	ID
	89:4 A. That -- that's what we can read, yes.	
	89:5 Q. Okay. And so he sends this to -- Donna	
	89:6 Farmer then forwards the e-mail to Alan Wilson.	MARTENS9-6.1
	89:7 A. Yes, that's what I see.	
89:11 - 89:17	**Martens, Mark 04-07-2017 (00:00:19)**	Martens.99
	89:11 Q. Okay. And Alan Wilson writes back to	
	89:12 Dr. Farmer and says: "Two options: We work closely	
	89:13 with Parry, someone other than Mark, or we get	
	89:14 someone else."	
	89:15 So basically take Mark off the job or we	
	89:16 use someone other than Dr. Parry, correct?	
	89:17 A. That's what I read.	
89:24 - 90:4	**Martens, Mark 04-07-2017 (00:00:20)**	Martens.100
	89:24 Q. Okay. And so then Donna Farmer responds	
	89:25 to Alan Wilson's suggestions and says: "One option:	
	90:1 I agree we need someone else to interfere --	
	90:2 interface with Parry."	
	90:3 Meaning she agrees that -- that you	
	90:4 should be off the job. Correct?	
90:7 - 90:8	**Martens, Mark 04-07-2017 (00:00:02)**	Martens.101
	90:7 THE WITNESS: That is what appears from	
	90:8 that.	
90:10 - 90:17	**Martens, Mark 04-07-2017 (00:00:15)**	Martens.102
	90:10 Q. Okay. "Right now the only person I think	
	90:11 that can dig us out of this genotox hole is the good	
	90:12 Dr. Kier."	
	90:13 And that's Dr. Larry Kier?	
	90:14 A. Yes.	
	90:15 Q. And that's the Monsanto -- long-term	
	90:16 Monsanto toxicologist, right?	
	90:17 A. Yes. Yes. Genotoxicologist.	
90:19 - 91:2	**Martens, Mark 04-07-2017 (00:00:21)**	Martens.103
	90:19 And Dr. Farmer goes on to say that she's	
	90:20 concerned about leaving the report out there as the	
	90:21 final project with his final impressions, correct?	
	90:22 A. That's what I read.	
	90:23 Q. Okay. So she doesn't -- it looks like	
	90:24 she doesn't want to just ignore the project, she	
	90:25 wants to make sure it gets cleaned up so it's not the	
	91:1 final project, right?	

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	91:2 A. That's what I read.	
91:14 - 91:21	**Martens, Mark 04-07-2017 (00:00:21)**	Martens.104
	91:14 Q. All right. And then Alan writes back to 91:15 Donna, Dr. Farmer, and says: "If Larry has the time, 91:16 that would be great, but we need to be careful we 91:17 don't get into another Cantox situation that could 91:18 take some word -- take some time wordsmithing and 91:19 reaching consensus." 91:20 Do you know what that means? 91:21 A. I have no idea.	
91:22 - 91:25	**Martens, Mark 04-07-2017 (00:00:09)**	Martens.105
	91:22 Q. And then says: "Maybe you should invite 91:23 Parry to St. Louis to get him more familiarized with 91:24 the complete database." Correct? 91:25 A. That's what I read.	
92:6 - 92:9	**Martens, Mark 04-07-2017 (00:00:10)**	Martens.106
	92:6 Q. Two -- two -- two toxicologists from the 92:7 United States have said that you should be pulled off 92:8 the project, and then they're inviting the European 92:9 expert to St. Louis and not inviting you, are they?	clear
92:12 - 92:12	**Martens, Mark 04-07-2017 (00:00:01)**	Martens.107
	92:12 THE WITNESS: That is a possibility.	
92:22 - 92:23	**Martens, Mark 04-07-2017 (00:00:09)**	Martens.108
	92:22 Q. All right. And then our next exhibit 92:23 will be Exhibit 7.	MARTENS9-7.1
92:24 - 93:2	**Martens, Mark 04-07-2017 (00:00:17)**	Martens.109
	92:24 This is the same e-mail that Dr. Wratten 92:25 wrote to you and Donna that we were just looking at, 93:1 to you and Dr. Farmer, and you have interplaced your 93:2 responses in italics.	
93:21 - 94:16	**Martens, Mark 04-07-2017 (00:01:01)**	Martens.110
	93:21 Q. How many reports did Dr. Parry write for 93:22 Monsanto? 93:23 A. I think he wrote -- there was three 93:24 reports. 93:25 Q. Okay. 94:1 A. Yeah. And the first report was only 94:2 evaluating the four publications that I had sent to 94:3 him that had problematic results. 94:4 And then afterwards I learned ^ Check to	

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	94:5 put everything into a nice context and to see whether 94:6 there is concordance in results with other toxicology 94:7 tests. I sent him a whole battery of -- of test 94:8 reports which have been as well, you know, produced 94:9 upon commission by Monsanto but also from some other 94:10 companies, to allow him to put it into context. So 94:11 he evaluated all these reports, and there is in the 94:12 report. 94:13 And there is a third notice that he 94:14 produced as well as a follow-up of that report on the 94:15 evaluation of all the toxicology studies in 94:16 combination.	
95:2 - 95:10	**Martens, Mark 04-07-2017 (00:00:22)** 95:2 Q. Okay. So you received this e-mail from 95:3 Dr. Wratten on September 1st of 1999 where he's 95:4 talking about how he is disappointed not in the 95:5 conclusions but in the way they were presented, 95:6 correct? 95:7 A. Mm-hmm. 95:8 Q. And you write back some remarks to 95:9 Dr. Wratten within his e-mail, correct? 95:10 A. Yes.	Martens.111
95:11 - 95:23	**Martens, Mark 04-07-2017 (00:00:32)** 95:11 Q. Okay. And the bottom line is you say to 95:12 him, you say to Dr. Wratten: "Please don't be too 95:13 negative. It is clear he will need some help to 95:14 produce a definitive report without twisting his 95:15 arms. Don't forget that his opinion is well 95:16 respected, and I am sure he didn't have the time to 95:17 write it all down as should have been the case; 95:18 therefore, the need to meet with him." Correct? 95:19 A. Yes. 95:20 Q. So you still believed in Dr. Parry and 95:21 this was your work in generating this report, 95:22 correct? 95:23 A. Yes.	Martens.112 MARTENS0-7.2
96:3 - 96:11	**Martens, Mark 04-07-2017 (00:00:20)** 96:3 Q. Okay. And then you look at the response 96:4 that you wrote to the entire group where you say 96:5 that: "We can now determine for ourselves how such	Martens.113 MARTENS0-7.1

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	96:6 report should look like and give him directions for a 96:7 rewrite." 96:8 So you were going to go to Dr. Parry and 96:9 give him directions for a rewrite of his report, 96:10 correct? 96:11 A. Yep.	
96:12 - 96:14	**Martens, Mark 04-07-2017 (00:00:04)** 96:12 Q. Okay. 96:13 A. These were directions for the form of the 96:14 report, not of the content of the report.	Martens.114
97:3 - 97:7	**Martens, Mark 04-07-2017 (00:00:12)** 97:3 This is a report by Dr. James M. Parry, correct? 97:4 A. Yes. 97:5 Q. This is the same Parry that wrote the 97:6 February 1999 report. 97:7 A. Yes.	Martens.115 MARTENS0-8.1
97:9 - 97:23	**Martens, Mark 04-07-2017 (00:00:31)** 97:9 And this is the "Evaluation of the 97:10 potential genotoxicity of glyphosate, glyphosate 97:11 mixtures in component surfactants," correct? 97:12 A. Yes. 97:13 Q. So it's the same subject matter area, 97:14 right? 97:15 A. Yes. 97:16 Q. And this is the area you have previously 97:17 testified that Dr. Parry is an expert, right? 97:18 A. Yes. 97:19 Q. Okay. And you had mentioned a few 97:20 moments ago that you gave Dr. Parry a host of 97:21 information to review, and it looks like this table 97:22 is what -- the information you gave him, correct? 97:23 A. Correct.	Martens.116
98:10 - 98:16	**Martens, Mark 04-07-2017 (00:00:33)** 98:10 Q. -- that ends -- we're going to go to the 98:11 one that ends 37, 237, please. Where it says that: 98:12 "The evaluation is that these studies provide some 98:13 evidence that glyphosate may be capable of inducing 98:14 oxidative damage under both in vitro and in vivo 98:15 conditions." 98:16 That was his evaluation, correct?	Martens.117 MARTENS0-8.5

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98:21 - 98:21	**Martens, Mark 04-07-2017 (00:00:01)** 98:21 A. That is what's in the report. Yes.	Martens.118
98:25 - 99:1	**Martens, Mark 04-07-2017 (00:00:04)** 98:25 Q. Okay. And this is consistent with his 99:1 February of 1999 conclusion, correct?	Martens.119
99:2 - 99:15	**Martens, Mark 04-07-2017 (00:00:41)** 99:2 A. The -- the conclusion evaluation he 99:3 formulated on page 237, pertains to the chapter in 99:4 "Miscellaneous Endpoints." 99:5 Q. Okay. Miscellaneous -- okay. 99:6 A. And miscellaneous endpoints are endpoints 99:7 that have been pursued by groups, you know, in 99:8 academia that have been -- actually undertaken 99:9 experimental tests in all of the mechanism of 99:10 actions. These were endpoints that were not pursued 99:11 in the official regulatory studies that were done at 99:12 Monsanto at that time. 99:13 Q. Okay. So -- 99:14 A. It's not a general evaluation. It's only 99:15 pertaining to miscellaneous endpoints.	Martens.120
100:16 - 100:20	**Martens, Mark 04-07-2017 (00:00:09)** 100:16 Q. But my question is, is this the same 100:17 conclusion -- that I had asked five minutes ago, is 100:18 this the same conclusion that he made in his February 100:19 of '99 paper? 100:20 A. Yes.	Martens.121
100:24 - 101:4	**Martens, Mark 04-07-2017 (00:00:27)** 100:24 Q. And then if you go to page end -- or 100:25 page 40, please, where it says his evaluation is 101:1 that: "These studies provide evidence that Roundup 101:2 mixture produces DNA lesions in vivo, probably due to 101:3 the production of oxidative damage." 101:4 That was his evaluation, correct?	Martens.122 MARTENS0-8.8
101:7 - 101:7	**Martens, Mark 04-07-2017 (00:00:03)** 101:7 THE WITNESS: Yes.	Martens.123
102:5 - 102:21	**Martens, Mark 04-07-2017 (00:00:44)** 102:5 THE WITNESS: It's very important to 102:6 mention that there are some miscellaneous endpoints 102:7 which gave some, you know, results of concern have 102:8 been obtained in vivo via routes of administration	Martens.124

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	102:9 which are improper for toxicological testing for 102:10 glyphosate -- exposure scenarios of glyphosate. 102:11 This all pertains to results that have 102:12 been obtained after intraperitoneal injection, which 102:13 actually produces a specific pathology that otherwise 102:14 would have never be possible, you know, in normal 102:15 exposure circumstances to either glyphosate or 102:16 Roundup. 102:17 BY MS. WAGSTAFF: 102:18 Q. Okay. Thank you. 102:19 And the intraperitoneal injection is an 102:20 acceptable route of exposure for a health hazard 102:21 assessment, correct?	
102:23 - 103:3	**Martens, Mark 04-07-2017 (00:00:11)** 102:23 THE WITNESS: No. 102:24 BY MS. WAGSTAFF: 102:25 Q. It's not. It's not accepted within the 103:1 field of toxicology as a -- a relevant route of 103:2 exposure for health hazard assessment? Is that what 103:3 you're telling me?	Martens.125 clear
103:6 - 103:12	**Martens, Mark 04-07-2017 (00:00:19)** 103:6 THE WITNESS: This is not a relevant 103:7 route of exposure. This can be used in order to 103:8 produce some results to explore potential effects 103:9 that can be produced during that route of exposure, 103:10 but that route of exposure is absolutely 103:11 inappropriate for the hazard and risk assessment of 103:12 pesticides.	Martens.126
103:14 - 103:18	**Martens, Mark 04-07-2017 (00:00:15)** 103:14 Q. Okay. All right. So overall 103:15 conclusions -- "Overall Conclusions," let's look at 103:16 it, page 42. 103:17 What does class -- clastogen -- genetic 103:18 mean?	Martens.127 MARTENS9-8.10
103:21 - 104:10	**Martens, Mark 04-07-2017 (00:00:48)** 103:21 A. Clastogenicity means chromosomal 103:22 breakage. 103:23 Q. Okay. So once again, it's talking about 103:24 mutation, right? 103:25 A. We like to talk about gene mutations and	Martens.128

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	104:1 chromosomal breakage, and these all resort under the 104:2 term "genotoxicology." 104:3 Q. Okay. So the overall conclusions, when 104:4 you've given Dr. Parry more information, is there is 104:5 published in vitro evidence that glyphosate is 104:6 clastogenetic and capable of inducing sister 104:7 chromatid exchange in both human and bovine 104:8 lymphocytes, and then he cites papers, correct? 104:9 A. Correct.	MARTENS9-8.11
	104:10 Q. And if you move on to the next page, page	
104:15 - 104:20	**Martens, Mark 04-07-2017 (00:00:16)** 104:15 the production of 8-OHdG in mouse liver, cites a 104:16 paper; both observations indicate that glyphosate may 104:17 be capable of inducing a prooxidant state leading to 104:18 the formation of oxidative damage lesion. 104:19 Correct? 104:20 A. That's a correct --	Martens.129
104:25 - 106:3	**Martens, Mark 04-07-2017 (00:01:22)** 104:25 Q. The next conclusion was that a -- of 105:1 Dr. Parry was that: "A Roundup mixture containing 105:2 glyphosate was shown to produce 8-OHdG in both the 105:3 liver and kidney of the mice (Bolognesi). These 105:4 observations indicate the Roundup mixture is capable 105:5 of inducing oxidative damage in vivo." 105:6 Is that correct? 105:7 A. That's what he wrote is correct, yes. 105:8 Q. Okay. And this is -- that's consistent 105:9 with what he found in the February '99 report that 105:10 he -- 105:11 A. Yes. 105:12 Q. Okay. Next on 14, glyphosate-induced 105:13 single-strand breaks in vivo in the liver and kidney, 105:14 and he cited those reports, correct? 105:15 A. Yes. 105:16 Q. Next, he tells Monsanto that the Roundup 105:17 mixture produced single-strand breaks in vivo in the 105:18 liver and kidneys of mice, correct? 105:19 A. Correct. 105:20 Q. Okay. And next, he tells -- Dr. Parry 105:21 tells Monsanto that glyphosate mixture but not	Martens.130

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	105:22 glyphosate produced an increase in uncharacterized 105:23 DNA adducts in vivo in the liver and kidneys of mice, 105:24 correct? 105:25 A. That's correct. 106:1 Q. All right. So Dr. Parry is telling 106:2 Monsanto that there are differences between 106:3 glyphosate alone and a glyphosate mixture, correct?	
106:6 - 106:6	**Martens, Mark 04-07-2017 (00:00:03)** 106:6 A. That's what he said generally.	Martens.131
106:9 - 106:10	**Martens, Mark 04-07-2017 (00:00:07)** 106:9 Q. If you go to the next page, "Specific 106:10 evaluation of the genotoxicity of glyphosate."	Martens.132 MARTENS9-8.12
106:23 - 107:2	**Martens, Mark 04-07-2017 (00:00:12)** 106:23 So we can start -- the sentence says: 106:24 "On the basis of the study of Lioi, I conclude that 106:25 glyphosate is a potential clastogenic in vitro." 107:1 Correct? 107:2 A. That's what he says, yes.	Martens.133
107:3 - 107:5	**Martens, Mark 04-07-2017 (00:00:10)** 107:3 Q. Okay. And then he goes on to say that 107:4 the Bolognesi study indicates that it may also be 107:5 clastogenic in vivo, correct?	Martens.134
107:6 - 107:11	**Martens, Mark 04-07-2017 (00:00:10)** 107:6 A. It may be, yes. The way he -- 107:7 Q. Correct. 107:8 A. Yeah. 107:9 Q. So he concludes that it is in vitro and 107:10 that it may be in vivo, correct? 107:11 A. It's hypothetical in vivo. Yeah.	Martens.135
107:13 - 107:22	**Martens, Mark 04-07-2017 (00:00:23)** 107:13 And then he goes on the -- so that was 107:14 the genotoxicity of glyphosate. Now he's looking at 107:15 the geno -- specific evaluation of the genotoxicity 107:16 of glyphosate mixtures, correct? 107:17 A. Mm-hmm. 107:18 Q. Okay. And he says: "The studies of 107:19 Bolognesi suggests that glyphosate mixtures may be 107:20 capable of inducing oxidative damage in vivo." 107:21 Correct? 107:22 A. Yes, that's what he says.	Martens.136

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108:22 - 108:24	**Martens, Mark 04-07-2017 (00:00:04)** 108:22 Q. So he was just putting Monsanto on notice 108:23 that this may be happening, correct? 108:24 A. Yes.	Martens.137
109:6 - 109:7	**Martens, Mark 04-07-2017 (00:00:04)** 109:6 We're going to skip to 109:7 page 64.	Martens.138 MARTENS9-8.32
110:5 - 110:23	**Martens, Mark 04-07-2017 (00:00:37)** 110:5 Q. Is -- is this the third report that you 110:6 were talking about? 110:7 A. Yes. 110:8 Q. Okay. So this came after the first two, 110:9 correct? 110:10 A. That -- that's what I understand, yes. 110:11 Q. Okay. And this is the same Dr. Parry 110:12 that you were -- that we've been talking about all 110:13 day, correct? 110:14 A. Yes, correct. 110:15 Q. Okay. And do you know what the genesis 110:16 of this report was, why he created this? 110:17 A. I don't recall it. 110:18 Q. Okay. But he created this at -- at 110:19 Monsanto's request, correct? 110:20 A. That is a possibility. I don't recall. 110:21 Q. Okay. And is there any chance that this 110:22 was linked to the second report? 110:23 A. Yes.	Martens.139
112:3 - 112:7	**Martens, Mark 04-07-2017 (00:00:07)** 112:3 Q. And then this one is either an annex to 112:4 his second report or it's a third report? 112:5 A. Yes. 112:6 Q. You're just not sure. 112:7 A. Yes.	Martens.140
112:18 - 112:20	**Martens, Mark 04-07-2017 (00:00:03)** 112:18 And then this says "Recommendations for 112:19 Future Work," correct? 112:20 A. Yes.	Martens.141
112:25 - 114:13	**Martens, Mark 04-07-2017 (00:02:11)** 112:25 Q. Okay. So it appears to me that this is 113:1 recommendations for future work based off of his	Martens.142

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113:2 analysis in the second report. Would that make
113:3 sense?
113:4 A. That makes sense, yes.
113:5 Q. Okay. So key questions, and these are
113:6 key questions that he is posing to Monsanto that
113:7 still remain after his analyses, correct?
113:8 A. Yes.
113:9 Q. Okay. So he's wanting to know if
113:10 glyphosate is an in vitro clastogen, if it's an
113:11 in vivo clastogen, if glyphosate is -- if that is
113:12 true, what is the mechanism of action? And does it
113:13 lead to other types of genotoxicity activity in vivo
113:14 such as point mutation induction? Does glyphosate
113:15 produce oxidative damage? Can we explain the
113:16 reported genotoxic effects of glyphosate on the basis
113:17 of the induction of oxidative damage?
113:18 Why don't you read the last three so the
113:19 jury doesn't have to just listen to my voice,
113:20 starting with 6. You can read it out loud.
113:21 A. Okay. So if glyphosate is an in vivo
113:22 genotoxin, is its mechanism of action thresholded?
113:23 Q. Okay. Number 7.
113:24 A. "Threshold," it wants to say that you
113:25 need to have a certain concentration in tissue before
114:1 that activity takes place.
114:2 Q. Mm-hmm.
114:3 A. "Under what conditions of exposure are
114:4 the antioxidant defenses of the cell overwhelmed?"
114:5 Q. Okay.
114:6 A. That is part of the thresholding.
114:7 "Are there difference -- differences in
114:8 the genotoxic activities of glyphosate and glyphosate
114:9 formulations?"
114:10 Q. So he's -- he's been telling you in the
114:11 last two reports that different things happen when he
114:12 tests glyphosate or glyphosate formulations, right?
114:13 A. Yes.

114:16 - 115:19 **Martens, Mark 04-07-2017 (00:01:22)** Martens.143

114:16 Q. And then the last one.
114:17 A. "Do any of the surfactants contribute to

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	114:18 the reported genotoxicity of glyphosate 114:19 formulations?" 114:20 Q. Okay. So he's saying we need to figure 114:21 out what the surfactants add to the equation, 114:22 correct?	
	114:23 A. Yes.	MARTENS9-8.33
	114:24 Q. Okay. So he also then gives you -- 114:25 Monsanto some actions that he recommended, correct? 115:1 A. Yes. 115:2 Q. Okay. And one of those is to do 115:3 comprehensive testing on glyphosate formulations, 115:4 correct? 115:5 A. Yes. 115:6 Q. Okay. He says that -- that "Monsanto 115:7 should evaluate the induction of oxidative damage 115:8 in vivo and determine the influence of antioxidant 115:9 status of the animals." Correct? 115:10 A. Correct. 115:11 Q. He also says: "Evaluate -- on the 115:12 assumption that the reported in vitro positive 115:13 clastogenic data for glyphosate is due to oxidative 115:14 damage, determine the influence of antioxidants." 115:15 Okay. So that's similar to the next one. 115:16 "Evaluate the clastogenic activity of glyphosate in 115:17 the presence and absence of a variety of antioxidant 115:18 activities." Correct? 115:19 A. That's what I read, yes.	
116:17 - 117:3	**Martens, Mark 04-07-2017 (00:00:24)** 116:17 Dr. Parry gave a list of eight questions 116:18 that were left unanswered, correct? 116:19 A. That he would like to see answered, yes. 116:20 Q. Okay. And as a scientist, you would have 116:21 liked to see those answered as well, correct? 116:22 A. These were genuine questions, yes. 116:23 Q. Yeah. Good questions, right? 116:24 A. These were good questions, yes. 116:25 Q. Okay. And he provided with a list of 117:1 actions that Monsanto could take to answer those 117:2 questions, correct? 117:3 A. Yes.	Martens.144

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117:6 - 117:25	**Martens, Mark 04-07-2017 (00:01:04)**	Martens.145
	117:6 So then Dr. Parry says at the very end of	MARTENS9-8.34
	117:7 his recommendations: "My overall view is that if	
	117:8 there is -- my overall view is that if the reported	
	117:9 genotoxicity of glyphosate and glyphosate	
	117:10 formulations can be shown to be due to the production	
	117:11 of oxidative damage, then a case could be made that	
	117:12 any genetic damage would be threshold."	
	117:13 Did I read that correctly?	
	117:14 A. You read it, yes.	
	117:15 Q. Okay. "Such genetic damage would only be	
	117:16 biologically relevant under conditions of compromised	
	117:17 anti -- antioxidant status. If such an oxidative	MARTENS9-8.35
	117:18 damage mechanism is proved, then it may be necessary	
	117:19 to consider the possibility of the susceptible groups	
	117:20 within the human population."	
	117:21 Did I read that correctly?	
	117:22 A. You read that correctly, yes.	
	117:23 Q. Okay. So there is an expert telling	
	117:24 Monsanto in 1999 to do tests that may affect the	
	117:25 human population, correct?	
118:3 - 119:12	**Martens, Mark 04-07-2017 (00:01:15)**	Martens.140
	118:3 THE WITNESS: This is a little bit an	
	118:4 expanded conclusion. You know, he is more or less	
	118:5 asking himself the question. If that might be true,	
	118:6 then there may be susceptible groups in a population	
	118:7 that might be more susceptible in producing an	
	118:8 effect. But he forgets to say those effects have	clear
	118:9 been, you know, obtained through intraperitoneal	
	118:10 injection, whereas the human exposure is not via	
	118:11 intraperitoneal injection. And that's a very	
	118:12 important nuance.	
	118:13 BY MS. WAGSTAFF:	
	118:14 Q. So I don't -- how do you know he forgot	
	118:15 to say that?	
	118:16 A. I don't know why he didn't point it out.	
	118:17 That's why --	
	118:18 Q. But he didn't point it out, did he?	
	118:19 A. Intra -- well, that is limited to	
	118:20 intraperitoneal injection. Not sufficiently --	

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	118:21 Q. So you may -- you may not agree with 118:22 what Dr. Parry wrote, but I'm not asking you to 118:23 rewrite his report. 118:24 I'm asking you in 1999, Dr. Parry wrote 118:25 to Monsanto and -- and did an analysis, gave 119:1 questions unanswered, right? 119:2 A. Yes. 119:3 Q. Proposed actions that could be taken, 119:4 right? 119:5 A. Yes. 119:6 Q. And then stated that the over -- his 119:7 overall view is that these tests and answers need to 119:8 be taken, right? 119:9 A. Yes. 119:10 Q. And then you need to figure out what -- 119:11 what group within the human population may be 119:12 affected, correct?	
119:15 - 119:24	**Martens, Mark 04-07-2017 (00:00:10)** 119:15 THE WITNESS: That -- that is what he 119:16 said. 119:17 MS. WAGSTAFF: Okay. 119:18 THE WITNESS: But I don't agree with what 119:19 he said because -- 119:20 BY MS. WAGSTAFF: 119:21 Q. That's -- you can -- that's fine if you 119:22 don't agree with what he said. I'm just -- that's 119:23 what he told Monsanto, correct? 119:24 A. That's what he told Monsanto, yes.	Martens.147
121:2 - 121:7	**Martens, Mark 04-07-2017 (00:00:24)** 121:2 And so that -- that second Parry report, 121:3 which was the longer one, was sent to you sometime 121:4 around September of 1999. And you had sent it to 121:5 Larry Kier, Dr. Donna Farmer, and Bill Heydens around 121:6 that time, correct? 121:7 A. Correct.	Martens.148
121:16 - 121:22	**Martens, Mark 04-07-2017 (00:00:15)** 121:16 Q. So you write to Larry and Donna -- which 121:17 would be Larry Kier and Donna Farmer, correct? 121:18 A. Correct. 121:19 Q. -- on September 16, 1999: "I would like	Martens.149 MARTENS0-0.1

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	121:20 to get some feedback to Jim Parry on his report."	
	121:21 Correct?	
	121:22 A. Correct.	
122:3 - 122:9	**Martens, Mark 04-07-2017 (00:00:18)**	Martens.150
	122:3 Q. So you're asking these folks for their	
	122:4 opinions so you can get some feedback to Dr. Parry,	
	122:5 correct?	
	122:6 A. That was the intention, yes.	
	122:7 Q. Okay. And you cc'd Dr. Bill Heydens on	
	122:8 that e-mail, right?	
	122:9 A. Yeah, that's what I see.	
122:20 - 123:14	**Martens, Mark 04-07-2017 (00:00:54)**	Martens.151
	122:20 Q. "Mark, all" -- and Mark is you,	
	122:21 Dr. Martens, correct?	
	122:22 A. That's correct, yes.	
	122:23 Q. Okay. He lets you know that he has read	
	122:24 the report and he agrees with the comments, right?	
	122:25 A. Yes.	
	123:1 Q. And there are various things that can be	
	123:2 done to improve the report. So, again, they're not	
	123:3 completely happy with the report, correct?	
	123:4 A. Yes.	
	123:5 Q. Okay. And then he says: "Let's step	
	123:6 back and look at what we're really trying to achieve	
	123:7 here." Right?	
	123:8 A. That's in the -- in the mail, yes.	
	123:9 Q. Okay. He states that: "Monsanto wants	
	123:10 to find/develop someone who is comfortable with the	
	123:11 genotox profile of glyphosate/Roundup and who can be	
	123:12 influential with regulators and scientific outreach	
	123:13 operations when genotox issues arise." Correct?	
	123:14 A. That's what I read, yes.	
123:23 - 125:9	**Martens, Mark 04-07-2017 (00:01:33)**	Martens.152
	123:23 BY MS. WAGSTAFF:	
	123:24 Q. Okay. And Bill Heydens is a toxicologist	
	123:25 in the United States, correct?	
	124:1 A. Yes.	
	124:2 Q. For Monsanto, correct?	
	124:3 A. Yes.	
	124:4 Q. Okay. Dr. Heydens goes on to say: "My	

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124:5 read is that Parry is not currently such a person,
124:6 and it would take quite some time and" money sign,
124:7 money sign, money sign, slash, "studies to get him
124:8 there." Correct?
124:9 A. That's what I read, yes.
124:10 Q. Okay. "We simply aren't going to do the
124:11 studies that Parry suggests, period." Correct?
124:12 A. That's what he said in the memo, yes.
124:13 Q. Okay. Then he directs the e-mail to you
124:14 specifically. "Mark, do you think Parry can become a
124:15 strong advocate without doing this work?" Parry,
124:16 question mark. Then he says: "If not, we should
124:17 seriously," underlined, italicized, bolded, "start
124:18 looking for one or more other individuals to work
124:19 with." Correct?
124:20 A. That's what I read, yes.
124:21 Q. Okay. Then he goes on to say: "We have
124:22 not made much progress and are currently very
124:23 vulnerable in this area." Correct?
124:24 A. That's what I read.
124:25 Q. Okay. And "this area" means the
125:1 genotoxicity of glyphosate/Roundup, correct?
125:2 A. That is correct.
125:3 Q. "We have to fix that" -- "that" being the
125:4 vulnerability -- "but only if we make this a high
125:5 priority now." Correct?
125:6 A. That's what I read.
125:7 Q. Okay. So -- and that is in September of
125:8 1999, correct?
125:9 A. Yes. That seems correct, yeah.

125:11 - 125:14 **Martens, Mark 04-07-2017 (00:00:13)** Martens.153

clear

125:11 Did you have any independent
125:12 conversations with Dr. Heydens as to why he did not
125:13 want to do the studies Parry suggested?
125:14 A. I don't recall.

125:18 - 125:24 **Martens, Mark 04-07-2017 (00:00:18)** Martens.154

125:18 Q. Did Dr. Parry ever offer to do the
125:19 studies he was suggesting?
125:20 A. He had the intention to do some work,
125:21 yes.

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	125:22 Q. When you say "he had the intention to do 125:23 some work" -- 125:24 A. That's what he was suggesting.	
126:4 - 127:5	**Martens, Mark 04-07-2017 (00:00:57)** 126:4 So when you say Dr. Parry had the 126:5 intention to do the work he suggested, what do you 126:6 mean -- do you mean that he wanted to do the work he 126:7 suggested? 126:8 A. Well, in his laboratory -- it's a typical 126:9 academic laboratory, he's a professor of the 126:10 department with Ph.D. students -- and he was 126:11 exploring the mechanism of oxidative stress and 126:12 oxidative damage, and he had some ideas about Ph.D. 126:13 work to do in that direction. 126:14 Q. Okay. So he had some ideas. 126:15 A. Yeah, some -- 126:16 Q. And did he complete those ideas? 126:17 A. Not -- not for the glyphosate. 126:18 Q. Okay. And Dr. Parry was not a Monsanto 126:19 employee, correct? 126:20 A. That's correct. 126:21 Q. He was never employed by Monsanto, 126:22 correct? 126:23 A. Never. 126:24 Q. So he's an independent scientist from 126:25 Monsanto, correct? 127:1 A. Yes. 127:2 Q. Okay. And did Dr. Parry ever ask for 127:3 financial support from Monsanto to complete the 127:4 studies that he had recommended? 127:5 A. Not that I recall.	Martens.155
127:11 - 127:14	**Martens, Mark 04-07-2017 (00:00:14)** 127:11 Q. Okay. If Dr. Parry had suggested and 127:12 requested samples to complete the studies that he had 127:13 suggested, do you agree Monsanto should have provided 127:14 those samples?	Martens.156
127:19 - 128:21	**Martens, Mark 04-07-2017 (00:01:16)** 127:19 THE WITNESS: We were reluctant to place 127:20 studies in the laboratory of Dr. Parry for a variety 127:21 of reasons. In the first place, since the results of	Martens.157

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	127:22 the studies would be used for regulatory reasons, we 127:23 would have preferred to have those studies carried 127:24 out in a laboratory which is accredited for good 127:25 laboratory practices, and his department was not. 128:1 Plus that if he would engage and we 128:2 engaged on supplementary -- additional testing to 128:3 prove whether or not there was oxidative stress, we 128:4 were looking into much more parameters than just 128:5 genotoxic parameters, like, you know, organ weights, 128:6 like gross pathology, like histopathology, and his 128:7 department was not equipped to do these type of 128:8 assays. 128:9 And that is more or less -- that's why we 128:10 were reluctant to place those studies in his 128:11 laboratory, but we were very open to listen to him 128:12 and to follow suggestions. 128:13 BY MS. WAGSTAFF: 128:14 Q. Okay. So you were reluctant to give 128:15 the -- to let Dr. Parry do the studies. Is that -- 128:16 A. Yes. 128:17 Q. -- a good summary of what you just said? 128:18 A. That's a good summary, yes. 128:19 Q. Okay. So who did the studies? 128:20 A. The studies -- you know, finally, we 128:21 started to do the studies.	
128:22 - 129:3	**Martens, Mark 04-07-2017 (00:00:15)** 128:22 Q. Uh-huh. 128:23 A. I had contacts with Professor Parry to 128:24 give suggestions and do some exchange in the design 128:25 of the studies. But the studies finally have been 129:1 carried out at the Environmental Health Laboratory of 129:2 Monsanto in St. Louis, which is a GLP-accredited 129:3 laboratory.	Martens.158
129:4 - 129:7	**Martens, Mark 04-07-2017 (00:00:12)** 129:4 Q. Okay. So of all of the -- the scientists 129:5 in the world, these studies ended up being done in 129:6 St. Louis by Monsanto scientists, correct? 129:7 A. Yes.	Martens.159
129:8 - 129:20	**Martens, Mark 04-07-2017 (00:00:37)** 129:8 Q. Okay. And what -- were the studies	Martens.160

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	129:9 published?	
	129:10 A. The studies -- as soon as the study	
	129:11 results were available, we first shared the study	
	129:12 results with Professor Parry. We went actually to	
	129:13 visit him and give a whole presentation of the study	
	129:14 results, and discuss all the ins and outs of the	
	129:15 study results. And -- and we can talk later of what	
	129:16 his opinion was on the study results.	
	129:17 But the study results had been in the	
	129:18 first place presented in the open as opposed to on	
	129:19 the Society of Toxicology meeting in San Francisco in	
	129:20 2001.	
129:21 - 130:10	**Martens, Mark 04-07-2017 (00:00:40)**	Martens.101
	129:21 Q. Okay. And who at Monsanto did those	
	129:22 studies?	
	129:23 A. These studies were conducted by a couple	
	129:24 of scientists in the Environmental Health Laboratory	
	129:25 under the leadership of Dr. Larry Kier and Kathy	
	130:1 Holz, and, you know, Alan Wilson, and I myself had	
	130:2 also a big say in the design and conduct of the	
	130:3 studies.	
	130:4 Q. Okay. And you said that that study	
	130:5 was -- when -- when did that study occur?	
	130:6 A. That must have been -- well, I don't	
	130:7 recall exactly, but it was in 2000s that these	
	130:8 studies must have been conducted.	
	130:9 Q. And you left in 2003, right?	
	130:10 A. Yes.	
130:11 - 132:4	**Martens, Mark 04-07-2017 (00:02:02)**	Martens.102
	130:11 Q. Okay. So you're -- you're saying that	
	130:12 the studies that Dr. Parry conducted -- or suggested	
	130:13 were conducted by Monsanto at Monsanto's headquarters	
	130:14 between 2000 -- well, here we are in -- we were in	
	130:15 September of two -- or in April of 2000, and they	
	130:16 haven't been done, so they were conducted probably	
	130:17 in -- you're saying 2000 or 2001?	
	130:18 A. They were conducted somewhere in the	
	130:19 second half of 2000. The results were ready -- were	
	130:20 ready very early 2001.	
	130:21 Q. Okay. And what journals were the results	

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130:22 published in?
130:23 A. The results were not published in a
130:24 journal. They were published as the proceedings in
130:25 the Society of Toxicology as a -- it was a poster
131:1 presentation at the Society of Toxicology, official
131:2 journal, you know, for the -- as an abstract for the
131:3 proceedings of the SOT meeting in San Francisco in
131:4 2001.
131:5 Q. Okay. So what was the -- who presented
131:6 the poster?
131:7 A. I was at that meeting -- well, there were
131:8 several of the authors. Well, the way how the poster
131:9 is presented, there's actually posters posted, then,
131:10 you know, there's some -- always scientists go to the
131:11 poster -- actually, you know, is present at the
131:12 poster to respond to questions that people may have
131:13 on the poster. So I was part of them, but also I
131:14 believe also Bill Heydens, et cetera, several others,
131:15 yeah.
131:16 Q. So this was not -- these results were not
131:17 peer reviewed, correct?
131:18 A. These results were peer reviewed in the
131:19 process -- it's not a peer reviewed for publication,
131:20 but they were peer reviewed in the process of the
131:21 submission of abstracts to the Society of Toxicology
131:22 of the United States.
131:23 Q. Okay. So was this -- were these results
131:24 submitted to a journal?
131:25 A. These results were later submitted to a
132:1 journal and published.
132:2 Q. So these results were -- have been
132:3 published?
132:4 A. Yes.

132:11 - 132:21 **Martens, Mark 04-07-2017 (00:00:40)** Martens.163

132:11 Q. Okay. And where was it published?
132:12 A. What do you mean, what journal?
132:13 Q. Mm-hmm.
132:14 A. Let's see. There's the Journal of
132:15 Agricultural Chemicals, et cetera. I don't recall
132:16 exactly, but they've been published in 2008.

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	132:17 Q. So are you talking about the paper by 132:18 Heydens, Healy, Hotz, Kier, you, Wilson and Donna 132:19 Farmer called "Genotoxic potential of glyphosate 132:20 formulations: Mode-of-action investigations"? 132:21 A. Yes.	
132:25 - 133:4	**Martens, Mark 04-07-2017 (00:00:19)** 132:25 for sakeness of a complete record, is this the -- is 133:1 this the study that Monsanto conducted in response to 133:2 Dr. Parry's questions and -- 133:3 A. Yes. 133:4 Q. -- suggestions?	Martens.104
133:6 - 133:7	**Martens, Mark 04-07-2017 (00:00:03)** 133:6 Q. Okay. And so let's mark that as 133:7 Exhibit 10.	Martens.105
133:13 - 134:3	**Martens, Mark 04-07-2017 (00:00:46)** 133:13 But it's your belief and testimony that 133:14 all of Dr. Parry's questions were answered by that 133:15 study? 133:16 A. Let me put it this way: That Dr. Parry 133:17 had a whole list of recommendations. 133:18 Q. Mm-hmm. 133:19 A. And what happened is actually one of the 133:20 most important recommendations, and he repeated that 133:21 all the time is, could you repeat the study of 133:22 Bolognesi, as -- you know, as best as possible, and 133:23 produce a couple of endpoints, which he addressed 133:24 like, for example, oxidative stress or oxidative DNA 133:25 damage. 134:1 And then we started to do the study and 134:2 the plan was actually to present the study results to 134:3 Dr. Parry and then to see what can happen next.	Martens.106
134:15 - 134:17	**Martens, Mark 04-07-2017 (00:00:07)** 134:15 Q. Okay. So if we want to look to the 134:16 answers for all of Dr. Parry's questions, we can find 134:17 them all in that report; is that correct?	Martens.107
134:20 - 135:5	**Martens, Mark 04-07-2017 (00:00:24)** 134:20 THE WITNESS: The -- Dr. Parry had a 134:21 whole list of recommendations, right. 134:22 BY MS. WAGSTAFF: 134:23 Q. Correct.	Martens.108

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	134:24 A. And the whole list, the most important --	
	134:25 we took the most important type of, you know,	
	135:1 questions. These were recommendations in regard	
	135:2 to -- to repeat the results -- to confirm the results	
	135:3 that had been found by Peluso and by Bolognesi, and	
	135:4 actually address a couple of questions in terms of	
	135:5 oxidative damage.	
135:16 - 136:14	**Martens, Mark 04-07-2017 (00:01:07)**	Martens.169
	135:16 Q. We're going back to Exhibit 8 really	MARTENS9-8.32
	135:17 quick, and I just want to talk about -- in this	
	135:18 Exhibit 8, we went through these in detail --	
	135:19 A. Mm-hmm.	
	135:20 Q. -- Dr. Parry listed eight questions.	
	135:21 Correct?	
	135:22 A. Yes.	
	135:23 Q. And is it your testimony that the answers	
	135:24 to each of these questions can be found within your	
	135:25 2008 article that is entitled "Genotox potential of	
	136:1 glyphosate formulations: Mode-of-action	
	136:2 investigations"?	
	136:3 A. Mm-hmm.	
	136:4 Q. Okay.	
	136:5 A. Just to make clear, we produced a lot of	
	136:6 new toxicological evidence, and then the plan was to	
	136:7 go to Dr. Parry and see whether, you know, all of his	
	136:8 questions still were -- he was satisfied or not. And	
	136:9 it was the -- the subject, the topic of the meeting	
	136:10 we organized together, we talked to Dr. Parry and to	
	136:11 listen to him whether he was satisfied with all the	
	136:12 results or whether he would have, you know, other or	
	136:13 new recommendations or some of the recommendations	clear
	136:14 that were in here.	
140:2 - 140:4	**Martens, Mark 04-07-2017 (00:00:06)**	Martens.170
	140:2 And so this was considered an honor to be	
	140:3 a Monsanto fellow.	
	140:4 A. Yes.	
141:19 - 142:5	**Martens, Mark 04-07-2017 (00:00:34)**	Martens.171
	141:19 Q. Okay. So if you look at this letter,	
	141:20 it -- I hope talking about your strengths doesn't	MARTENS9-11.2
	141:21 embarrass you because that's all this letter talks	

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	141:22 about, but it talks about how -- this letter is about 141:23 you, correct? 141:24 A. Yes. 141:25 Q. Okay. So it gives you great pleasure to 142:1 nominate Dr. Mark Martens -- that's you -- for the 142:2 appointment of the position of Monsanto fellow. 142:3 That's what we've been talking about, correct? 142:4 You've been with Monsanto at that time 142:5 for 12 years.	
142:9 - 143:4	**Martens, Mark 04-07-2017 (00:00:57)** 142:9 Q. Okay. And during that time you have 142:10 developed and sustained technical expertise in 142:11 various areas of toxicology, most notably metabolism, 142:12 genotoxicity and carcinogenicity. 142:13 And those two at the end are the ones 142:14 that we've been talking about most today, right? 142:15 A. Yes. 142:16 Q. So they're recognizing you for being an 142:17 expert in this area. 142:18 It says that you have established 142:19 yourself as a highly knowledgeable and credible 142:20 scientist outside of Monsanto as well. 142:21 I assume you don't disagree with that. 142:22 A. I don't disagree. 142:23 Q. It says that you had internal leadership 142:24 and external influence that makes you valuable and 142:25 effective to support Monsanto's entire profile of 143:1 products in Europe -- in the Europe/Africa region. 143:2 And that would include the Roundup and 143:3 glyphosate products, right? 143:4 A. Yes.	Martens.172
145:21 - 147:10	**Martens, Mark 04-07-2017 (00:01:59)** 145:21 Let's talk more about what -- what 145:22 Dr. Hjelle says about you. 145:23 You have -- you were instrumental in 145:24 convincing a key European expert that reports of 145:25 genotoxicity with Roundup actually represent effects 146:1 secondary to cytotoxicity, rather than a primary 146:2 genotoxic response. 146:3 And that was Dr. Parry, right?	Martens.173 MARTENS9-11.3

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	146:4 A. Yes.	
	146:5 Q. That's what we've been talking about all	
	146:6 morning.	
	146:7 It says that you were also influential or	
	146:8 effective in reversing the strong negative regulatory	
	146:9 position toward MON 13900 in France.	
	146:10 What's -- what's MON 13900?	
	146:11 A. I think it was a grow regulating	
	146:12 compound, but I honestly don't recall the detail of	
	146:13 that.	
	146:14 Q. Okay. And then it says that you have	
	146:15 been successful in alleviating concerns over	
	146:16 genotoxicity and carcinogenicity, and that's really	
	146:17 what your role was with -- with engaging in Parry,	
	146:18 right?	
	146:19 A. My role in engaging with Parry was to	
	146:20 find -- to receive a second opinion and to get	
	146:21 Professor Parry to further elucidate, you know, the	
	146:22 real significance of those findings by doing	
	146:23 supplementary additional testing.	
	146:24 Q. Okay. And -- and Dr. Parry's report did	
	146:25 not alleviate the concerns over genotoxicity or	
	147:1 carcinogen -- carcinogenicity, right?	
	147:2 A. Well, what happens is that on the basis	
	147:3 of the recommendations of Dr. Parry, we initiated a	
	147:4 stepwise research program, and shared those data with	
	147:5 Dr. Parry and discussed those results with Dr. Parry	
	147:6 so that he could reassess his position on the basis	
	147:7 of those new data.	
	147:8 Q. Okay. But his reports on their face	
	147:9 didn't alleviate the concerns over the genotoxicity,	
	147:10 right?	clear
147:14 - 149:7	**Martens, Mark 04-07-2017 (00:02:16)**	Martens.174
	147:14 A. All of them. The -- the reports that we	
	147:15 have been talking about from Dr. Parry were actually	
	147:16 an evaluation on -- of the -- the papers of -- you	
	147:17 know, that we discussed in the beginning, plus the	
	147:18 regulatory genotoxicology work.	
	147:19 Q. Okay. So my questions were -- my	
	147:20 question was, Dr. Parry's report did not alleviate	

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147:21 the concerns over -- over the genotoxicity and
147:22 carcinogenicity, correct?
147:23 A. Dr. Parry's report actually expressed a
147:24 concern with recommendations that we used to produce
147:25 new toxicological data in concert with Dr. Parry,
148:1 that we then shared with Dr. Parry to come to a new
148:2 conclusion on the basis of those data.
148:3 Q. Okay. And did -- did you share -- did
148:4 you share Dr. Parry's reports, either of them,
148:5 report 1 or report 2, with anybody?
148:6 A. No, because it was a consultancy with
148:7 Dr. Parry, which actually -- with the intention to
148:8 lead us to the production of new data which would
148:9 help us to gain insight in the type of data that were
148:10 produced by Bolognesi and Peluso.
148:11 Q. Okay. And you've agreed earlier that
148:12 the questions raised by Dr. Parry were good
148:13 questions.
148:14 A. Yes, mm-hmm.
148:15 Q. Okay. And they would -- why not share
148:16 those with other scientists around the world?
148:17 A. No, because this was a preliminary --
148:18 preliminary evaluation which led to an hypotical --
148:19 hypothetical evaluation of assessment of Roundup and
148:20 glyphosate by Dr. Parry, and we needed actually to
148:21 first confirm whether or not his hypothesis was
148:22 value -- was valid.
148:23 Q. Okay. So let me just make sure I
148:24 understand what happened. Okay?
148:25 A. Mm-hmm.
149:1 Q. You engaged -- Monsanto engages Dr. Parry
149:2 to assess some studies that have occurred, correct?
149:3 A. Right.
149:4 Q. Okay. And those studies raised some
149:5 valid concerns about the safety profile of glyphosate
149:6 and Roundup, right?
149:7 A. Yes.

149:18 - 150:9 **Martens, Mark 04-07-2017 (00:00:29)** Martens.175

149:18 Q. So you asked him an opinion and he writes
149:19 a report, and the report is not well received by

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149:20 Monsanto toxicologists.
149:21 A. Well, the conclusions were well received.
149:22 Q. Okay.
149:23 A. The form of the report was not well
149:24 received.
149:25 Q. Okay. The conclusions were well
150:1 received --
150:2 A. Mm-hmm.
150:3 Q. -- and eventually Dr. Parry is given more
150:4 information.
150:5 A. Yes.
150:6 Q. And he writes another report with very
150:7 similar conclusions. We've walked through each of
150:8 the reports, correct?
150:9 A. Mm-hmm.

150:21 - 151:15 **Martens, Mark 04-07-2017 (00:00:56)** Martens.176

150:21 Q. Yeah. But it's your opinion that these
150:22 questions should not be shared with anyone else.
150:23 A. It was the intention to use those
150:24 questions and to use the recommendation to initiate
150:25 further research to address them in a corrective way
151:1 and to see where exactly that we -- both parties
151:2 could understand what's actually going on, and
151:3 whether we have an initiation of oxidative damage and
151:4 whether possible genotoxicity was secondary to the
151:5 initiation of oxidative damage.
151:6 Q. Okay. And I assume by the same token,
151:7 you never shared -- Monsanto never shared the Parry
151:8 reports with any regulatory agency.
151:9 A. That was not -- that was internal, you
151:10 know, expert to our company, you know, information,
151:11 and exchange of views, which had as the only
151:12 objective to inspire Monsanto to do some
151:13 supplementary research and to better understand the
151:14 effects that have been published by Peluso and
151:15 Bolognesi.

151:19 - 151:22 **Martens, Mark 04-07-2017 (00:00:05)** Martens.177

151:19 Q. I assume by the same
151:20 token that Monsanto never shared the Parry report
151:21 with any regulatory agencies, correct?

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	151:22 A. That's correct.	
152:1 - 152:2	**Martens, Mark 04-07-2017 (00:00:01)**	Martens.178
	152:1 Q. Is that correct?	
	152:2 A. That's correct, yeah.	
152:8 - 152:18	**Martens, Mark 04-07-2017 (00:00:28)**	Martens.179
	152:8 Q. Okay. And in fact, Monsanto engaged	
	152:9 Dr. Parry in a secrecy agreement, right?	
	152:10 A. In a confidentiality agreement.	
	152:11 Q. Well, the words that you used were	
	152:12 secrecy agreement, correct?	
	152:13 A. Sometimes these words are used on the	
	152:14 document itself. In fact, it's a confidentiality	
	152:15 agreement.	
	152:16 Q. Okay. It's -- it's -- but it was a	
	152:17 secrecy agreement making Dr. Parry contractually	
	152:18 agree not to share the results with anyone, correct?	
152:20 - 152:24	**Martens, Mark 04-07-2017 (00:00:17)**	Martens.180
	152:20 THE WITNESS: Let me rephrase. A	
	152:21 confidentiality agreement is signed between an	
	152:22 external expert and a company in the case that a	
	152:23 company have -- is willing to share confidential data	
	152:24 with the expert, and that is general practice.	
153:4 - 153:14	**Martens, Mark 04-07-2017 (00:00:24)**	Martens.181
	153:4 Q. What is the -- Monsanto gave to Dr. Parry	
	153:5 four articles that were in the public domain,	
	153:6 correct?	
	153:7 A. That -- that is not the issue of a	
	153:8 confidentiality agreement. Monsanto provided to	
	153:9 Dr. Parry --	
	153:10 Q. Mm-hmm.	
	153:11 A. -- all its proprietary rights studies,	
	153:12 the regulatory studies, which are the property of	
	153:13 Monsanto, and it was within that context that the	
	153:14 confidentiality agreement was needed.	
154:4 - 154:16	**Martens, Mark 04-07-2017 (00:00:15)**	Martens.182
	154:4 THE WITNESS: The -- when -- you know,	
	154:5 I'm a consultant myself.	
	154:6 BY MS. WAGSTAFF:	
	154:7 Q. Mm-hmm.	
	154:8 A. If I'm asked by a company to provide	

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	154:9 advice -- 154:10 Q. Mm-hmm. 154:11 A. -- on documents which are the property of 154:12 that company -- 154:13 Q. Mm-hmm. 154:14 A. -- then always a confidentiality 154:15 agreement is signed, and this was exactly the same 154:16 situation.	
154:20 - 154:22	**Martens, Mark 04-07-2017 (00:00:04)** 154:20 Q. Okay. And you said you received from 154:21 Professor Parry a signed secrecy agreement, right? 154:22 A. Right.	Martens.183
155:8 - 155:24	**Martens, Mark 04-07-2017 (00:00:34)** 155:8 Q. So was it your understanding then 155:9 that Dr. Parry could share his analysis and report 155:10 with other people? 155:11 A. Yes. 155:12 Q. Okay. So it's -- you don't believe that 155:13 that analysis or report is contained within the 155:14 secrecy agreement. 155:15 A. That was not why a secrecy agreement is 155:16 normally signed for. 155:17 Q. Okay. And do you think that that report 155:18 should be kept secret? 155:19 A. It's an evaluation. 155:20 Q. Mm-hmm. 155:21 A. That wasn't an open question. That was 155:22 never in question. We asked him for an advice, he 155:23 provided the advice, and then we worked on that 155:24 advice.	Martens.184
156:23 - 156:25	**Martens, Mark 04-07-2017 (00:00:07)** 156:23 I'm asking you why would the results 156:24 or -- and/or his analysis need to be subject to a 156:25 secrecy agreement?	Martens.185
157:4 - 157:8	**Martens, Mark 04-07-2017 (00:00:15)** 157:4 THE WITNESS: Yep. A secrecy or a 157:5 confidentiality agreement is always signed when an 157:6 external expert works together with a company, and 157:7 that company provides the external expert with data 157:8 which are confidential and have proprietary rights.	Martens.186

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157:12 - 157:25	**Martens, Mark 04-07-2017 (00:00:23)** 157:12 I believe I understand your testimony to 157:13 be that he signed a secrecy agreement because 157:14 Monsanto gave him secret documents. 157:15 A. No secret documents. Confidential 157:16 documents. 157:17 Q. Okay. So he signed a secrecy agreement 157:18 because Monsanto gave him confidential documents, 157:19 correct? 157:20 A. That is correct. 157:21 Q. And from those confidential documents, 157:22 he -- Dr. Parry created a report. 157:23 A. Mm-hmm. 157:24 Q. Or an analysis, an evaluation. 157:25 A. Yes.	Martens.187
158:20 - 159:2	**Martens, Mark 04-07-2017 (00:00:21)** 158:20 Q. And what I'm asking is why -- why 158:21 weren't his results shared more broadly? 158:22 A. Well, because we were awaiting the 158:23 results that we would be producing in order to 158:24 respond to his recommendations and his concerns. 158:25 Q. Okay. So I am understanding it correctly 159:1 that no one at Monsanto shared the Parry papers with 159:2 anyone?	Martens.188
159:9 - 160:10	**Martens, Mark 04-07-2017 (00:01:14)** 159:9 A. Well, you know, as far as the whole 159:10 research project was not terminated, there was no 159:11 reason to start sharing those evaluations and data 159:12 with other party. 159:13 Q. Okay. So the answer is, no, it was 159:14 not -- the information was not shared outside of 159:15 Monsanto? 159:16 A. No, it was not shared outside of 159:17 Monsanto. 159:18 Q. What is the Glyphosate Task Force? 159:19 A. The Glyphosate Task Force is -- is a 159:20 European task force, and I presume there is a similar 159:21 type of task force in the United States, that more or 159:22 less -- well, it assembles all the glyphosate, all 159:23 the companies that bring glyphosate to the market in	Martens.189

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	159:24 Europe, and a part of the European Crop Protection 159:25 Association. 160:1 Q. Okay. And is -- does it have members? 160:2 A. Yes. 160:3 Q. Okay. And is Monsanto a member of the 160:4 Glyphosate Task Force? 160:5 A. Yes. 160:6 Q. Okay. Is it a company or a corporation? 160:7 A. It is a working group that resides under 160:8 the European Crop Protection Association, which is a 160:9 European association of crop protection products 160:10 produced.	
160:22 - 161:6	**Martens, Mark 04-07-2017 (00:00:19)** 160:22 Q. Okay. Have you done work with the 160:23 Glyphosate Task Force recently? 160:24 A. Yes. 160:25 Q. In what capacity? 161:1 A. I represented the Glyphosate Task Force 161:2 at the meetings of the European Union, at the 161:3 European Chemicals Agency for the classification of 161:4 glyphosate. 161:5 Q. Okay. And this was recently, correct? 161:6 A. Yes.	Martens.190
161:14 - 161:21	**Martens, Mark 04-07-2017 (00:00:16)** 161:14 Did you get paid for your work with the 161:15 Glyphosate Task Force that you just mentioned 161:16 recently? 161:17 A. As a consultant, yes. 161:18 Q. Okay. And does the task force itself pay 161:19 you for that work? 161:20 A. Ultimately the task force pays me for the 161:21 services provided.	Martens.191
162:10 - 162:24	**Martens, Mark 04-07-2017 (00:00:42)** 162:10 Q. Okay. And what's that consulting work 162:11 that you're doing for Monsanto with respect to 162:12 glyphosate within the last year and a half or -- 162:13 A. That was all in relation to the European 162:14 classification and resubmission of glyphosate in 162:15 Europe. 162:16 Q. Okay. So you were a consultant for the	Martens.192

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	162:17 Glyphosate Task Force and also for Monsanto.	
	162:18 A. Well, you know, I was -- within the	
	162:19 contract that I had with Monsanto, I got sanctioned	
	162:20 as a representative of Glyphosate Task Force.	
	162:21 Q. Okay. So it was Monsanto who paid you	
	162:22 for that work on the Glyphosate Task Force.	
	162:23 A. And back charged to the Glyphosate Task	
	162:24 Force.	
163:21 - 163:22	**Martens, Mark 04-07-2017 (00:00:04)**	Martens.103
	163:21 Q. So how much money do you believe that you	
	163:22 were paid for that consultancy work?	
164:1 - 164:10	**Martens, Mark 04-07-2017 (00:00:13)**	Martens.104
	164:1 A. Oh, it must have been something like	
	164:2 60,000 Euros.	
	164:3 Q. 60,000 Euros --	
	164:4 A. Yes.	
	164:5 Q. -- is that what you said? Okay.	
	164:6 And that was over a period of -- you said	
	164:7 since last summer, and right now it's --	
	164:8 A. Eight months, something like --	
	164:9 Q. Eight months. Okay.	
	164:10 A. Eight or nine months.	
164:15 - 164:20	**Martens, Mark 04-07-2017 (00:00:14)**	Martens.105
	164:15 And does your consultancy agreement state	
	164:16 that you cannot work for Monsanto competitors?	
	164:17 A. No.	
	164:18 Q. No. There's no clause that says you can	
	164:19 only consult for Monsanto?	
	164:20 A. There is no exclusivity clause.	
165:11 - 166:1	**Martens, Mark 04-07-2017 (00:00:46)**	Martens.106
	165:11 Q. Okay. We have talked throughout the day	
	165:12 about reports that Dr. Parry has written, correct?	
	165:13 A. Yes.	
	165:14 Q. And each of those reports had certain	
	165:15 analyses or -- or evaluations or conclusions	
	165:16 contained within them, correct?	
	165:17 A. Yes.	
	165:18 Q. Did Dr. Parry ever write to you a	
	165:19 retraction of those conclusions, evaluations or	
	165:20 analyses?	

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	165:21 A. I don't recall that. 165:22 Q. Did Dr. Parry ever write a version of a 165:23 report where his evaluations or conclusions were 165:24 inconsistent with the ones -- the evaluations and 165:25 conclusions we looked at today? 166:1 A. I don't recall such a report.	
166:2 - 166:7	**Martens, Mark 04-07-2017 (00:00:23)** 166:2 Q. Did -- did you ever 166:3 receive any written confirmation from Dr. Parry that 166:4 Monsanto has satisfied the questions that he posed 166:5 that we went over today? 166:6 A. That was written in a meeting report that 166:7 was sent out by Richard Garnett.	Martens.197
166:16 - 166:18	**Martens, Mark 04-07-2017 (00:00:07)** 166:16 So I'm wondering is there any written 166:17 confirmation from Dr. Parry that his questions have 166:18 been answered in any way?	Martens.198
166:23 - 167:14	**Martens, Mark 04-07-2017 (00:00:36)** 166:23 THE WITNESS: The conclusions that were 166:24 written down by -- the conclusions of the meeting 166:25 that were written down by Richard Garnett or the 167:1 conclusions that were reached together with Dr. Parry 167:2 in his meeting were genuinely reflecting the 167:3 conclusions that we all together reached at that 167:4 meeting. 167:5 BY MS. WAGSTAFF: 167:6 Q. Okay. So my question was, did you ever 167:7 receive written confirmation from Dr. Parry that his 167:8 questions had been answered, and it sounds like, no, 167:9 you didn't. 167:10 A. No, we didn't, but I had a continued 167:11 relationship with Dr. Parry afterwards as well. 167:12 Q. Sure. But you never received written 167:13 confirmation from him, correct? 167:14 A. Not that I recall.	Martens.199
169:15 - 169:16	**Martens, Mark 04-07-2017 (00:00:04)** 169:15 MS. WAGSTAFF: Yeah, and this is what 169:16 we're going to label Exhibit 12 and --	Martens.200 MARTENS9-12.1
171:20 - 171:23	**Martens, Mark 04-07-2017 (00:00:09)** 171:20 Q. So this appears to be a PowerPoint that	Martens.201

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	171:21 you've created. Do you remember this PowerPoint?	
	171:22 A. I -- I recall the images when I see them	
	171:23 now, yes.	
172:5 - 173:1	**Martens, Mark 04-07-2017 (00:00:44)**	Martens.202
	172:5 Q. So do you remember making this	
	172:6 PowerPoint?	
	172:7 A. Yes, yes. I remember the -- some of the	
	172:8 pictures, yes.	
	172:9 Q. All right. And so when you made this,	
	172:10 you were not an employee of Monsanto, correct?	
	172:11 A. I was an employ -- employee of Monsanto	
	172:12 at the time when I made this presentation.	
	172:13 Q. Oh, you were. Okay.	
	172:14 A. Yeah.	
	172:15 Q. So you made this presentation before	
	172:16 2003?	
	172:17 A. Yes.	
	172:18 Q. Okay. And -- and what did you make this	
	172:19 presentation for?	
	172:20 A. That presentation was given at the	
	172:21 occasion of an internal technology meeting of	
	172:22 Monsanto Europe.	
	172:23 Q. Okay. And so just help me understand,	
	172:24 who was the audience that you were presenting to?	
	172:25 A. It was all European Monsanto technology	
	173:1 researchers.	
173:2 - 174:6	**Martens, Mark 04-07-2017 (00:01:12)**	Martens.203
	173:2 Q. Okay. And do you remember why you gave	
	173:3 this presentation?	
	173:4 A. This presentation -- well, Monsanto	
	173:5 Europe organizes on a regular basis scientific	
	173:6 meetings to educate their personnel and to put them	clear
	173:7 aware of new findings in -- in science that is of	
	173:8 application to the agricultural products of Monsanto.	
	173:9 And at the tech days 2001, which were organized in	
	173:10 Brussels, the theme was surfactants.	
	173:11 Q. Okay. At the what days? I just didn't	
	173:12 hear what you said.	
	173:13 A. Well, there was internal technology	
	173:14 meeting days were called the tech days.	

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	173:15 Q. Oh, tech days. Okay. Got it. 173:16 So tech days 2001 was in Brussels -- 173:17 A. Yes. 173:18 Q. -- and the theme was surfactants. 173:19 A. Yes. 173:20 Q. And this was your presentation at that. 173:21 A. Right. 173:22 Q. You remember that? 173:23 A. Right. 173:24 Q. Okay. And so you put this data together 173:25 at that point, right? 174:1 A. Right. 174:2 Q. Okay. And this isn't a PowerPoint 174:3 someone else made and gave to you, correct? 174:4 A. No, no, this is my PowerPoint. 174:5 Q. You made it, this is your thoughts? 174:6 A. Yes.	
174:10 - 174:25	**Martens, Mark 04-07-2017 (00:00:52)** 174:10 Q. Okay. So, unfortunately, there aren't 174:11 names -- or page numbers on it, but I will kind of 174:12 guide you by picture. Okay? 174:13 A. Okay. 174:14 Q. Okay. If you go to the thing that says 174:15 "Surfactant Technology, Specific Toxicity Cases." 174:16 It's kind of far back, and then it will be easy from 174:17 there. It looks like this (indicating). 174:18 A. Yes. 174:19 Q. Okay. 174:20 A. I have it. 174:21 Q. And these are all slides from your 174:22 PowerPoint, right? 174:23 So it looks like you were educating your 174:24 audience about the toxicology of surfactants, right? 174:25 A. Yes.	Martens.204 MARTENS0-12.15
175:3 - 175:13	**Martens, Mark 04-07-2017 (00:00:29)** 175:3 In doing so, you noted the Peluso case, 175:4 right? 175:5 A. Yes. One -- well, the results of our 175:6 additional research were available at that time, and 175:7 one of the initiatives was actually to inform	Martens.205

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	175:8 personnel -- technology personnel in Monsanto about	
	175:9 the results.	
	175:10 Q. Mm-hmm.	
	175:11 A. And also at the same time in parallel, we	
	175:12 were preparing the poster for the Society of	
	175:13 Toxicology meeting in San Francisco.	
175:18 - 177:11	**Martens, Mark 04-07-2017 (00:01:50)**	Martens.206
	175:18 Q. My question was, in educating these	
	175:19 folks, you noted the Peluso case, right?	
	175:20 A. Yes.	
	175:21 Q. Okay. And you talk about the Peluso case	
	175:22 and you talk about MON 35050, which is what we've	
	175:23 been talking about all morning, the Italian	
	175:24 formulation, right?	
	175:25 A. Yes.	
	176:1 Q. And that's the -- MON 35050 is also the	
	176:2 formulation used in the Peluso and the -- the --	
	176:3 A. Bolognesi.	
	176:4 Q. -- Bolognesi paper.	
	176:5 A. Yes.	
	176:6 Q. Right?	
	176:7 A. Yes.	
	176:8 Q. Okay. And it says: "The in vivo	
	176:9 genotoxicity finding was cause of concern to	
	176:10 regulatory authorities."	
	176:11 Correct?	
	176:12 A. Yes.	
	176:13 Q. Okay. So now these are your thoughts	
	176:14 that the genotoxicity finding in vivo was of concern,	
	176:15 correct?	
	176:16 A. Yes.	
	176:17 Q. Okay. And this is -- then you're --	
	176:18 you're going on to educate these people who are	MARTENS0-12.16
	176:19 listening to your presentation about the toxicity of	
	176:20 surfactants, and you said: "To better understand the	
	176:21 significance, Monsanto undertook research to examine	
	176:22 the role of intraperitoneal versus oral, DMSO olive	
	176:23 oil versus saline, and then the Italian formulation	
	176:24 with and without glyphosate." Right?	
	176:25 A. Yes, exactly.	

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	177:1 Q. So I just want to make sure that I 177:2 understand what additional research Monsanto 177:3 undertook. Was that the 2008 article that we've been 177:4 talking about? 177:5 A. Yes. 177:6 Q. And was there any other research Monsanto 177:7 undertook? 177:8 A. No. That was that research. 177:9 Q. Okay. And do you remember about what 177:10 month this presentation occurred in 2001? 177:11 A. That must have been very early 2001.	
177:22 - 178:3	**Martens, Mark 04-07-2017 (00:00:14)** 177:22 Q. Okay. And so your -- the -- the results 177:23 from your new study weren't finalized at this point; 177:24 is that correct? 177:25 A. I think they were known by that time, 178:1 yes. 178:2 Q. Okay. So do you include them in this 178:3 PowerPoint?	Martens.207
178:5 - 178:6	**Martens, Mark 04-07-2017 (00:00:03)** 178:5 Yeah, the conclusions of that study were 178:6 mentioned on a slide.	Martens.208
178:14 - 179:3	**Martens, Mark 04-07-2017 (00:00:35)** 178:14 Q. Okay. So this is -- these are your 178:15 conclusions -- 178:16 A. Mm-hmm. 178:17 Q. -- from the MON 35050 case. 178:18 So the MON 350 case is your 2008 study, 178:19 correct? 178:20 A. Yes. 178:21 Q. Okay. And just so we're clear, this is 178:22 the -- this is the 2008 study that Bill Heydens is 178:23 the lead coauthor, right? 178:24 A. Mm-hmm. 178:25 Q. And it's called "Genotoxic Potential of 179:1 Glyphosate Formulations: Mode-of-Action 179:2 Investigations," correct? 179:3 A. Yes, correct.	Martens.209 MARTENS9-10.1
179:10 - 179:21	**Martens, Mark 04-07-2017 (00:00:38)** 179:10 Q. If this was done in 2001, previous to --	Martens.210

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	179:11 to this research, why did it take seven years to 179:12 publish it in a journal? 179:13 A. Well, we were very fast in actually 179:14 bringing it into the open because we communicated the 179:15 results via a poster on the -- at the Society of 179:16 Toxicology meeting in San Francisco. So those 179:17 results were in the open and were actually shared 179:18 with the outside world for discussion. 179:19 To turn all those results into a 179:20 publication, that calls for a lot of work, and while 179:21 that has been done after I left Monsanto in 2003.	
180:7 - 180:9	**Martens, Mark 04-07-2017 (00:00:12)** 180:7 Q. Okay. So when you left Monsanto in 2003, 180:8 the results of this MON 35050 case study were not 180:9 published, correct?	Martens.211 clear
180:16 - 180:21	**Martens, Mark 04-07-2017 (00:00:16)** 180:16 A. They were already put into the open via 180:17 our poster presentation. 180:18 Q. Okay. And so this MON 35050 case study, 180:19 when you left Monsanto in 2013 was not in -- 180:20 published in a journal, correct? 180:21 A. That is correct, yes.	Martens.212
183:19 - 183:25	**Martens, Mark 04-07-2017 (00:00:20)** 183:19 Q. Well, I will ask one question about your 183:20 study, that is the 2008 study. Was that a risk 183:21 assessment? 183:22 A. It was meant to be a mechanistic study, 183:23 if I may say so. 183:24 Q. So is that a risk assessment? 183:25 A. No.	Martens.213 DEPOSLIP.1
187:24 - 189:9	**Martens, Mark 04-07-2017 (00:01:16)** 187:24 You are a toxicologist, correct, sir? 187:25 A. Yes, sir. 188:1 Q. Would you please tell the jury what a 188:2 toxicologist is. 188:3 A. A toxicologist is a scientist who studies 188:4 the effects of chemical substances on the health of 188:5 animals and men. 188:6 Q. And you have a Ph.D. in toxicology? 188:7 A. Yes.	Martens.214

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188:8 Q. Did you start your career as what is
188:9 called a forensic toxicologist?
188:10 A. Yes, I did.
188:11 Q. Would you please explain to the jury what
188:12 a forensic toxicologist is.
188:13 A. A forensic toxicologist is a scientist
188:14 who actually, you know, designs and applies methods
188:15 of analysis to determine the concentration of toxic
188:16 substances in body fluids and tissues of people and
188:17 of victims in order to establish a causal
188:18 relationship between a crime and, for example, the --
188:19 the death of the victim.
188:20 Q. Okay. And that was a little bit of a
188:21 technical explanation.
188:22 You're one of the scientists that works
188:23 for police departments or detectives --
188:24 A. Yes.
188:25 Q. -- to investigate poisons and other --
189:1 A. Right.
189:2 Q. -- substances that might have hurt
189:3 someone in a crime?
189:4 A. Yes.
189:5 Q. Is that a -- is that a good explanation?
189:6 A. That is a good explanation, yes.
189:7 Q. Did you do a residency with Scotland Yard
189:8 in England?
189:9 A. Yes, I did.

189:10 - 191:4 **Martens, Mark 04-07-2017 (00:01:59)** Martens.215

189:10 Q. And tell us in a sentence or two what you
189:11 did there.
189:12 A. During my residency at Scotland Yard,
189:13 which is the Metropolitan Police Laboratories in
189:14 London, I spent time in acquiring knowledge and
189:15 refining my knowledge in terms of the analysis of
189:16 toxic substances in body fluids and tissues.
189:17 Q. After your forensic toxicology work as a
189:18 student and as a resident at Scotland Yard, what did
189:19 you go on to do next in your career?
189:20 A. After my Ph.D., I joined the
189:21 pharmaceutical industry.

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189:22 Q. Well, what company did you join?
189:23 A. Continental Pharma in Brussels.
189:24 Q. And what was your job duty with
189:25 Continental Pharmaceuticals in Brussels?
190:1 A. I was the head of the department of mass
190:2 spectometry, pharmacokinetics and metabolism.
190:3 Q. You said "pharmacokinetics." What is
190:4 pharmacokinetics?
190:5 A. Pharmacokinetics is the study of the
190:6 behavior of chemical substances in the human body.
190:7 Q. How the chemicals move through the body?
190:8 A. And how they are excreted from the body
190:9 as well.
190:10 Q. And you said "metabolism." What is that?
190:11 A. The metabolism is a series of chemical
190:12 reactions that take place in the liver and which lead
190:13 to breakdown products, which are -- can be either
190:14 toxic, nontoxic, and which are excreted through the
190:15 kidneys from the body.
190:16 Q. You also mentioned mass spectrometry, and
190:17 that's a tool that's used to assess chemicals, right?
190:18 A. That's a tool that is used to identify
190:19 and characterize and quantify chemicals that, you
190:20 know, are present in body fluids and tissues.
190:21 Q. What did you do after your work at
190:22 Continental Pharma?
190:23 A. After Continental Pharma, I joined the
190:24 Belgium authorities as a specialist in clinical
190:25 biochemistry first, as an inspector, and then
191:1 afterwards I joined the toxicologists, where I became
191:2 head of the toxicology department, and actually
191:3 founded the toxicology department at the National
191:4 Institutes of Health.

191:5 - 192:11 **Martens, Mark 04-07-2017 (00:01:19)** Martens.216

191:5 Q. And when you say the "Belgian
191:6 authorities," that's the same as the National
191:7 Institutes of Health?
191:8 A. Well, Belgium is a small country, so we
191:9 don't have a separate institute like National
191:10 Institutes of Health, but I worked -- at the time it

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191:11 was called the Institute of Hygiene and Epidemiology,
191:12 which was actually the scientific research institute
191:13 of the Ministry of Health.
191:14 Q. Now, sir, as you said, in the United
191:15 States we have a whole agency called the National
191:16 Institutes of Health that does scientific research,
191:17 and we also have the Environmental Protection Agency
191:18 which regulates pesticides.
191:19 In Belgium, does the same organization do
191:20 both of those things?
191:21 A. In Belgium, it's a collaboration between
191:22 the Ministry and the Scientific Institute for Public
191:23 Health.
191:24 Q. And that's where you worked, right?
191:25 A. Yes.
192:1 Q. How long were you a regulator in Belgium?
192:2 A. Ten years.
192:3 Q. And what -- what was your role there?
192:4 What did you do at the institute?
192:5 A. I was the head of the department of
192:6 toxicology, and in that function I was the primary
192:7 advisor of the Minister of Health of Belgium. And at
192:8 the same time I had to represent my country at the
192:9 meetings of the European Union, the commission of the
192:10 European Union, at OECD, and at other international
192:11 meetings like, for example, IPCS.

192:12 - 193:5 **Martens, Mark 04-07-2017 (00:00:43)** Martens.217

192:12 Q. Were you involved in inspections of
192:13 companies and approval of their products?
192:14 A. That was also --
192:15 Q. Or disapproval of their products?
192:16 A. Yes, that was indeed the case.
192:17 Q. After your work as a regulator in Belgium
192:18 for 10 years, what did you do next?
192:19 A. I joined Monsanto in Brussels.
192:20 Q. What were your responsibilities at
192:21 Monsanto, broadly speaking?
192:22 A. At the time when I joined Monsanto,
192:23 Monsanto had a very large chemical division next to
192:24 the agrochemical division and the food division, and

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	192:25 I was responsible for the whole portfolio of Monsanto 193:1 products for all these sectors in Europe and Africa. 193:2 Q. And it was a Europe -- it was a regional 193:3 responsibility for Europe, Africa and the Middle 193:4 East? 193:5 A. Yes.	
193:14 - 193:25	**Martens, Mark 04-07-2017 (00:00:35)** 193:14 Now, over your 45-year career as a 193:15 toxicologist, how many different substances have you 193:16 worked with toxicologically speaking? 193:17 A. I've seen the toxicology profiles of at 193:18 least 1,000 products. 193:19 Q. And out of the at least thousand products 193:20 that you have worked with as a toxicologist, how does 193:21 glyphosate compare regarding -- with regard to 193:22 toxicity? 193:23 A. Of all the compounds I assist during my 193:24 whole career, glyphosate is certainly one of the 193:25 least toxic I've ever seen.	Martens.218
194:5 - 194:24	**Martens, Mark 04-07-2017 (00:00:50)** 194:5 Q. Now, what do toxicologists call the body 194:6 of studies, the group of studies and scientific data 194:7 regarding a particular substance like glyphosate? 194:8 A. As a toxicology dossier. 194:9 Q. Okay. So the dossier. 194:10 How large is the toxicology dossier on 194:11 glyphosate? 194:12 A. The toxicology dossier of glyphosate is 194:13 actually the largest I've ever seen in my whole 194:14 career. 194:15 Q. Now, when glypho -- glyphosate is used, 194:16 of course, to kill weeds, right? 194:17 A. Yes. 194:18 Q. How does it do that? What does it do to 194:19 weeds that makes them die? 194:20 A. It inhibits specifically an enzyme that 194:21 is responsible for the production of an amino acid, 194:22 which is very essential for the survival of the 194:23 plant. When that enzyme is blocked, then the plant 194:24 actually starves to death.	Martens.219

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195:5 - 195:8	**Martens, Mark 04-07-2017 (00:00:11)** 195:5 Q. The enzyme that glyphosate blocks in 195:6 plants, does that exist in humans? 195:7 A. No, it does not exist in humans and it 195:8 does not exist in all mammals.	Martens.220
195:14 - 196:4	**Martens, Mark 04-07-2017 (00:00:51)** 195:14 Q. Is it possible for glyphosate to harm 195:15 humans or cats and dogs and cows and other mammals 195:16 through the same way that it harms weeds? 195:17 A. No, that's not possible. 195:18 Q. I want to talk for a minute about the 195:19 issue of exposure. Would you please explain to the 195:20 jury why toxicologists care about exposure. 195:21 A. Actually, the compound is toxic when the 195:22 dose is high enough to exert a toxic action. So 195:23 there are chemicals with a low potential of toxicity 195:24 and a high potential of toxicity. The chemicals with 195:25 a low potential of toxicity need much higher doses to 196:1 cause illness in man; whereas, the chemicals with a 196:2 high potential for toxicity only need very lower 196:3 doses and even very minor doses to cause illness in 196:4 man.	Martens.221
198:4 - 198:19	**Martens, Mark 04-07-2017 (00:00:58)** 198:4 In the real world, what is the level of 198:5 exposure that humans have to glyphosate? 198:6 A. The level of exposure is very low, and it 198:7 has been demonstrated in a farm family study where 198:8 glyphosate exposure in farmers has been monitored by 198:9 analyzing glyphosate in urine, and from that project, 198:10 which has been, you know, carried out on at least 198:11 50 -- something like 50 farms -- farmers and their 198:12 families, we could assess that the quantity that has 198:13 been absorbed after one day of using glyphosate and 198:14 applying glyphosate on surfaces as high as 400 acres 198:15 per day, that the quantity that is absorbed that day 198:16 is actually about even more than 10 million times 198:17 lower than the quantities that in one day we had to 198:18 use in animals in order to, you know, to assess 198:19 possibly carcinogenicity.	Martens.222
205:4 - 205:16	**Martens, Mark 04-07-2017 (00:00:33)**	Martens.223

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	205:4 Q. Now, you said that Monsanto -- we've just 205:5 been talking about long-term cariogenicity studies, 205:6 cancer studies of glyphosate. 205:7 A. Right. 205:8 Q. Not of Roundup. 205:9 Has Monsanto done long-term cariogenicity 205:10 studies of Roundup? 205:11 A. These type of studies were not carried 205:12 out because they are scientifically of no added value 205:13 for a very simple reason: If you administer Roundup 205:14 to, you know, experimental animals for their 205:15 lifetime, they actually will die from the surfactant 205:16 before they ever have the occasion to develop cancer.	
206:3 - 206:8	**Martens, Mark 04-07-2017 (00:00:08)** 206:3 Surfactants are in dishwashing liquid. 206:4 A. Yes. 206:5 Q. They're in bar soap. 206:6 A. Yes. 206:7 Q. They're in shampoo. 206:8 A. Yes.	Martens.224
206:14 - 206:16	**Martens, Mark 04-07-2017 (00:00:04)** 206:14 Q. They're in substances that we use to 206:15 spray on the walls of our house to clean it? 206:16 A. Yes.	Martens.225
206:24 - 207:15	**Martens, Mark 04-07-2017 (00:00:56)** 206:24 Q. And what happens to an animal or a person 206:25 if they drink, consume surfactants at the levels that 207:1 you would have to give in a long-term carcinogenicity 207:2 study? 207:3 A. As surfactants have the characteristic to 207:4 be irritating to mucous membranes, so if you drink -- 207:5 if you are, from a gastrointestinal point of view, 207:6 are exposed to high concentrations of surfactants, 207:7 you actually produce a chronic irritation of the 207:8 mucous membranes of the gastrointestinal tract, and 207:9 that causes an imbalance of electrolyte exchange, and 207:10 the result is that, you know, there will be a lot of 207:11 water extracted from the bloodstream into the 207:12 gastrointestinal tract. Thereby, you will have a 207:13 thickening of the blood, which can actually end up	Martens.226

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	207:14 into a hypothalamic shock, and of which animals can 207:15 die.	
208:2 - 208:8	**Martens, Mark 04-07-2017 (00:00:22)** 208:2 Q. Now, the jury has heard that a lot of the 208:3 studies on glyphosate, including glyphosate cancer 208:4 studies, were performed by Monsanto, for example, at 208:5 the Environmental Health Lab in St. Louis. 208:6 How do regulators know that they can 208:7 trust studies done by industry labs like the 208:8 Environmental Health Lab at St. Louis?	Martens.227
208:13 - 209:6	**Martens, Mark 04-07-2017 (00:00:39)** 208:13 A. The -- the laboratories for toxicology 208:14 studies are carried out for regulatory purposes. 208:15 They need to be accredited for good laboratory 208:16 practices. That means they will have to follow 208:17 extremely stringent procedures of quality control to 208:18 make sure that processes are followed, to make sure 208:19 that at all levels of data production, these data are 208:20 controllable and can be checked by the authorities. 208:21 Q. Now, you said "good laboratory 208:22 practices." 208:23 A. Mm-hmm. 208:24 Q. Is that your term? 208:25 A. No, that's the official term which has 209:1 been at the highest level possible applied at OECD 209:2 where at the first time the "good laboratory 209:3 practices" have been defined. 209:4 Q. Is one of the chapters in your book on 209:5 good laboratory practices? 209:6 A. Yes.	Martens.228
209:10 - 209:12	**Martens, Mark 04-07-2017 (00:00:05)** 209:10 Q. And have you done good laboratory 209:11 practices inspections? 209:12 A. Yes.	Martens.229
209:21 - 209:24	**Martens, Mark 04-07-2017 (00:00:12)** 209:21 Q. How do regulators know that industry labs 209:22 that are following good laboratory practices aren't 209:23 just cooking the data and making stuff up or telling 209:24 lies to the regulators?	Martens.230
210:1 - 210:10	**Martens, Mark 04-07-2017 (00:00:27)**	Martens.231

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	210:1 THE WITNESS: The -- the regulatory 210:2 authorities organize on a regular basis inspections. 210:3 And also when the study reports are submitted to the 210:4 regulatory authorities, they should contain all the 210:5 inspection reports of the internal quality assurance 210:6 unit of the laboratory, which is an independent unit 210:7 in the laboratory reporting to a completely 210:8 independent management from the laboratory, and 210:9 making sure that all the procedures are in place and 210:10 that all the inspections are documented.	
210:24 - 211:1	**Martens, Mark 04-07-2017 (00:00:09)** 210:24 Q. Why -- how do we know that the people who 210:25 are watching the scientists and watching the 211:1 procedures are following the rules?	Martens.232
211:3 - 211:15	**Martens, Mark 04-07-2017 (00:00:40)** 211:3 THE WITNESS: There is -- the quality 211:4 assurance unit within the toxicology laboratory 211:5 reporting to outside toxicology laboratory needs to 211:6 actually to accept on a regular basis inspections 211:7 from the authorities, and when the inspection reports 211:8 are acceptable, they acquire what is called a GLP 211:9 accreditation. And they need to have the GLP 211:10 accreditation at regular renewals of that in order to 211:11 stay in function. And when the laboratory has a 211:12 quality assurance unit or in its role no 211:13 accreditation, this laboratory has no possibility to 211:14 submit its test results to the authorities, they will 211:15 be refused.	Martens.233
211:22 - 212:16	**Martens, Mark 04-07-2017 (00:00:51)** 211:22 Q. And the regulators also come in and 211:23 perform inspections of the lab and the -- the 211:24 independent auditing unit -- 211:25 A. Yeah. 212:1 Q. -- for the lab as well, right? 212:2 A. Yes. On a regular basis. 212:3 Q. I would like to turn to the issue of 212:4 Dr. Parry. 212:5 When you reached out to Dr. Parry in 212:6 1999, you sent him four of the studies that existed 212:7 at the time on the subject of genotoxicity, correct?	Martens.234

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	212:8 A. Yes. 212:9 Q. And there were other studies that you 212:10 didn't send him at the time, right? 212:11 A. Well, the study -- well, there were the 212:12 studies -- the regulatory studies which have been 212:13 produced by Monsanto, they were not sent in the first 212:14 place to Dr. Parry for evaluation because they've 212:15 been evaluated by the authorities and who came to the 212:16 conclusion that glyphosate was not genotoxic.	
212:25 - 213:3	**Martens, Mark 04-07-2017 (00:00:09)** 212:25 Q. And when he did his initial evaluation, 213:1 as you testified earlier, he hadn't yet looked at the 213:2 Monsanto studies and the regulatory studies, right? 213:3 A. Right.	Martens.235
213:17 - 213:23	**Martens, Mark 04-07-2017 (00:00:19)** 213:17 What I'm putting up on the screen is from 213:18 Exhibit 4, Bates number ending 103. 213:19 And during Ms. Wagstaff's examination, 213:20 she highlighted and asked you about the first 213:21 sentence in that first full paragraph on the page, 213:22 sir, saying: "The overall data provided by the four 213:23 publications" --	Martens.236 MARTENS9-4.11
214:4 - 214:18	**Martens, Mark 04-07-2017 (00:00:39)** 214:4 "The overall data provided by the four 214:5 publications provide evidence to support a model that 214:6 glyphosate is capable of producing genotoxicity, both 214:7 in vivo and in vitro, by a mechanism based upon the 214:8 production of oxidative damage?" 214:9 And you talked about that earlier. I 214:10 would like to go on and talk about the rest of that 214:11 paragraph right now, sir. 214:12 It says: "If confirmed, such a mechanism 214:13 of genetic damage would be expected to be produced at 214:14 high concentrations of the herbicide and would be 214:15 relevant only when the antioxidant protective 214:16 mechanisms of the cell are overwhelmed." 214:17 Did I read that right? 214:18 A. Yes.	Martens.237
214:24 - 215:12	**Martens, Mark 04-07-2017 (00:00:34)** 214:24 And -- but what I would like you to do	Martens.238

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	214:25 now is explain to the jury what is meant by: You 215:1 would expect if there is such a mechanism, if such a 215:2 mechanism exists and such a mechanism is confirmed, 215:3 then it would be expected to be produced at high 215:4 concentrations and would be relevant only when the 215:5 antioxidant protective mechanisms of the cell are 215:6 overwhelmed. 215:7 A. Yes. 215:8 Q. That's a dose statement, correct? 215:9 A. Yes. Yes, correct. 215:10 Q. Could you explain what he means by the 215:11 antioxidant protective mechanisms of the cell being 215:12 overwhelmed by high doses of pesticide?	clear
215:15 - 216:5	**Martens, Mark 04-07-2017 (00:00:49)** 215:15 THE WITNESS: The cell disposes of a 215:16 whole series of molecules which are of a kind to 215:17 neutralize free oxygen radicals. One of those 215:18 molecules is, for example, glutathione, and that is 215:19 actually a mechanism of the cell to protect itself 215:20 against oxidative damage. 215:21 Now, you can be exposed to a chemical 215:22 producing oxidative free radicals, but as long as 215:23 those free radicals -- oxygen free radicals are 215:24 neutralized by these molecules, nothing is happening 215:25 because the cell is fully protected. 216:1 So only when the stock of those 216:2 protective molecules is consumed, then there will be 216:3 free oxygen radicals that will not anymore be 216:4 neutralized, and they start actually reacting with 216:5 constituents of the cell of which DNA.	Martens.239
216:7 - 217:21	**Martens, Mark 04-07-2017 (00:01:59)** 216:7 Q. So you can have a different outcome with 216:8 regard to what happens with oxidative damage at low 216:9 doses versus very high concentrated doses; is that 216:10 right? 216:11 A. That is right. 216:12 Q. Is that what you found when you actually 216:13 did studies of animals and gave them very high doses 216:14 orally and intraperitoneally? 216:15 A. Yes.	Martens.240

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216:16 Q. Now, Dr. Parry made some recommendations
216:17 for possible steps that Monsanto could take in his --
216:18 in his various proposals to you, correct?
216:19 A. Yes.
216:20 Q. What did Monsanto do with those
216:21 recommendations? What work did it carry out in
216:22 response?
216:23 A. We developed a program in order -- in a
216:24 stepwise program, and the first step of that program
216:25 was, upon request and which we fully accepted, a
217:1 repeat of the Bolognesi study. That then we found
217:2 deficiencies with the Bolognesi study. The Bolognesi
217:3 study was carried out on three animals at only one
217:4 dose level. Monsanto carried out, you know, this
217:5 assay on ten animals and on two dose levels, and even
217:6 investigating the possible influence of the vehicle
217:7 for intraperitoneal injection on the outcome of the
217:8 study.
217:9 On top of that, Monsanto added more
217:10 elements to the protocol to investigate the nature
217:11 and the severity of the cytotoxicity that is produced
217:12 after intraperitoneal injection to try to understand
217:13 the relationship between cytotoxicity, oxidative
217:14 stress and mutagenicity or oxidative damage of DNA.
217:15 So all these parameters have been
217:16 measured in this protocol.
217:17 Q. And these were done in the GLP certified
217:18 lab in St. Louis --
217:19 A. Yes.
217:20 Q. -- is that right?
217:21 A. Yep.

218:3 - 218:12 **Martens, Mark 04-07-2017 (00:00:28)** Martens.241

218:3 Q. And -- I'm sorry. What other -- what
218:4 other modifications and improvements did you make to
218:5 the Bolognesi study?
218:6 A. The improvements that were made was, for
218:7 example, also the selection of the indicator for
218:8 oxidative stress. It was the NADP, nicotinaminde
218:9 adenine, oxidative stress transcription. It's a
218:10 complicated term. But it was at that time the most

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	218:11 recent methodology in order -- in a very sensitive 218:12 and specific way to identify oxidative stress.	
218:18 - 219:4	**Martens, Mark 04-07-2017 (00:00:28)** 218:18 Q. Now, you mentioned -- you talked earlier 218:19 about how once these results came out, they were 218:20 provided to the authorities and they were part of a 218:21 poster presentation in San Francisco; is that right? 218:22 A. Yes, that's right. 218:23 Q. And when something is published as a 218:24 poster presentation, is it available to the general 218:25 scientific community to see and review? 219:1 A. Yes. Exactly. 219:2 Q. And the same results were also published 219:3 in 2008 in a paper that you were a coauthor on? 219:4 A. Yes.	Martens.242
219:22 - 220:2	**Martens, Mark 04-07-2017 (00:00:15)** 219:22 Q. I have marked as Exhibit 18 a 219:23 February 19th, 2001 e-mail from Bill Heydens to 219:24 Larry Kier, and you're copied on some of the rest of 219:25 the thread. 220:1 Go ahead and take a look at that, sir, 220:2 and tell me when you're ready?	Martens.243 MARTENS9-18.1
220:4 - 220:4	**Martens, Mark 04-07-2017 (00:00:03)** 220:4 Yes, I'm ready.	Martens.244
220:14 - 220:19	**Martens, Mark 04-07-2017 (00:00:22)** 220:14 Q. And on the second page of the two pages 220:15 of this exhibit is an e-mail from Richard Garnett 220:16 dated February 16th, 2001, to you and to Donna 220:17 Farmer, Bill Heydens and Bill Graham, reporting on 220:18 your meeting with Dr. Parry, correct? 220:19 A. Yes.	Martens.245 MARTENS9-18.2
221:4 - 221:14	**Martens, Mark 04-07-2017 (00:00:23)** 221:4 Q. Then "The presentation of the results of 221:5 the MON 35050 study changed the mood because it 221:6 clarified certain effects found in the Bolognesi and 221:7 Peluso papers." Correct? 221:8 A. That's correct. 221:9 Q. And the MON 35050 study is the one that 221:10 we were just talking about -- 221:11 A. Right.	Martens.246

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	221:12 Q. -- that you performed improving on those 221:13 earlier studies; is that right? 221:14 A. That is correct.	
224:10 - 225:15	**Martens, Mark 04-07-2017 (00:01:22)** 224:10 Q. Okay. Since our -- I'm reading again 224:11 from Exhibit 18. "Since our previous discussions 224:12 with him, Professor Parry had begun to comprehend the 224:13 complexity and range of glyphosate formulations. We 224:14 clarified this by reviewing the brands, formulations 224:15 and surfactants used in Europe and the rest of the 224:16 world. Then reviewed the mutagenicity studies 224:17 available for the surfactants used in glyphosate 224:18 formulations. We demonstrated with work undertaken 224:19 since the previous discussion that structurally 224:20 related surfactants, etheramines, do not directly 224:21 cause genotoxicity." 224:22 And that was an accurate description of 224:23 the meeting, correct? 224:24 A. Yeah. Yes. 224:25 Q. Now, let's -- I want to go to results. 225:1 These were the results of the meeting with Professor 225:2 Parry, correct? 225:3 A. Yes. 225:4 Q. "Acceptance that glyphosate is not 225:5 genotoxic." 225:6 And that is acceptance by whom, sir? 225:7 A. By -- by Professor Parry. 225:8 Q. "Broad agreement that genotoxic results 225:9 in some studies with surfactants arose due to 225:10 oxidative damage rather than direct genotoxicity." 225:11 Now, when you -- when -- when Richard 225:12 Garnett said: "Broad agreement that genotoxic 225:13 results in some studies was due to oxidative damage 225:14 rather than direct genotoxicity," what studies did he 225:15 mean by the "some studies"?	Martens.247
225:18 - 226:23	**Martens, Mark 04-07-2017 (00:01:04)** 225:18 THE WITNESS: Well, I was at the meeting, 225:19 so I know what it is about. It was the studies with 225:20 intraperitoneal injection. 225:21 BY MR. GRIFFIS:	Martens.248

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	225:22 Q. "Recognition of the difference of 225:23 toxicity between the intraperitoneal and oral 225:24 routes" -- and you've been explaining that to us, 225:25 right, the difference between the injection into the 226:1 belly and drinking? 226:2 A. Drinking, yes. 226:3 Q. Drinking. 226:4 -- "and that only oral, dermal and 226:5 inhalation route are taken into consideration for 226:6 classification in the EU." Correct? 226:7 A. Yes. 226:8 Q. And why is it that only oral, dermal and 226:9 inhalation routes are taken into consideration for 226:10 classification of substances -- of the toxicity of 226:11 substances in the EU? 226:12 A. Well, these are the only acceptable 226:13 routes of exposure, you know, when, you know, people 226:14 get into contact with hazardous chemicals. 226:15 Q. Is it because humans don't get chemicals 226:16 injected directly into their belly? 226:17 A. Of course not. 226:18 Q. "Acceptance of the low quality of the" -- 226:19 how do you pronounce that, sir? 226:20 A. Lioi. 226:21 Q. Lioi. 226:22 "Acceptance of the low quality of the 226:23 Lioi, et al., study."	
227:3 - 227:6	**Martens, Mark 04-07-2017 (00:00:06)** 227:3 Q. Who was it that was accepting the low 227:4 quality of the Lioi study? 227:5 MS. WAGSTAFF: Objection to form. 227:6 THE WITNESS: Professor Parry.	Martens.249
227:8 - 227:11	**Martens, Mark 04-07-2017 (00:00:08)** 227:8 Q. "Professor Parry accepted the argument 227:9 that no repeat dose study should be necessary on the 227:10 basis of the NTP data." Correct? 227:11 A. Yes.	Martens.250
227:15 - 227:21	**Martens, Mark 04-07-2017 (00:00:15)** 227:15 Q. And he accepted that you as industry, you 227:16 couldn't test other people's surfactants, right?	Martens.251

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	227:17 A. Yes.	
	227:18 Q. You explained that to him?	
	227:19 A. Right.	
	227:20 Q. And Dr. Parry no longer requested any	
	227:21 studies on the final formulation; is that right?	
227:23 - 228:25	**Martens, Mark 04-07-2017 (00:01:16)**	Martens.252
	227:23 THE WITNESS: Yes.	
	227:24 BY MR. GRIFFIS:	
	227:25 Q. So did -- the results of this meeting	
	228:1 that you attended with Professor Parry and Richard	
	228:2 Garnett, did Professor Parry change his view of what	
	228:3 he thought Monsanto should do next?	
	228:4 A. Yes. But he asked for one supplementary,	
	228:5 one additional study.	
	228:6 Q. And that was -- show us where that is on	
	228:7 this page, please.	
	228:8 A. That is the fourth dash.	
	228:9 Q. "Complete the" -- this is under	
	228:10 "Actions," "Complete the MON 35050 study with	
	228:11 intraperitoneal injection of the MON 35035	
	228:12 formulation minus glyphosate." Correct?	
	228:13 A. Yes.	
	228:14 Q. And did you do that?	
	228:15 A. Yes. And there was no difference.	
	228:16 Q. Why was it that Dr. Parry's lab didn't	
	228:17 perform the MON 35050 study, sir?	
	228:18 A. The major reason is because he runs a	clear
	228:19 non-GLP accredited laboratory, and he didn't have the	
	228:20 capability in doing histopathology studies.	
	228:21 Q. He didn't have the capability, why?	
	228:22 A. Because he's not a histopathologist. So	
	228:23 you need expertise of histopathologist plus a	
	228:24 completely equipped laboratory to prepare the tissue	
	228:25 samples for microscopic examination.	
229:24 - 230:13	**Martens, Mark 04-07-2017 (00:00:52)**	Martens.253
	229:24 Q. And the procedures that exist in GLP labs	
	229:25 to make sure that the data is good, those procedures	
	230:1 don't normally exist in academic labs; is that fair?	
	230:2 A. No. That's fair.	
	230:3 Q. Sir, has any national or multinational	

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	230:4 regulator, like the European Union, the EPA, et 230:5 cetera, concluded that glyphosate causes cancer 230:6 based on the studies that we've been talking about 230:7 today? 230:8 A. In the European Union, the European 230:9 Chemical Agency, and the European Food Safety 230:10 Authority reviewed all the studies on genotoxicity 230:11 and carcinogenicity of glyphosate, and they came to 230:12 the conclusion that glyphosate is not genotoxic and 230:13 is not a carcinogen.	
232:2 - 232:25	**Martens, Mark 04-07-2017 (00:01:08)** 232:2 Q. What do they do? 232:3 A. When the pesticide producer wants to put 232:4 a pesticide onto the marketplace, he has to produce a 232:5 safety package, which is a whole toxicological 232:6 dossier, and he has to produce that according to, you 232:7 know, internationally agreed test guidelines and 232:8 according to good laboratory practices. All the data 232:9 that are produced in that context have to be 232:10 submitted to the authorities, and the authorities 232:11 actually analyze the data from scratch, and they come 232:12 to their own conclusions. 232:13 Q. Do the authorities have experts in 232:14 toxicology and other areas that enable them to 232:15 actually evaluate the data? 232:16 A. They have experts in toxicology, and if 232:17 they do need experts that are specialized in specific 232:18 subparts of toxicology, they have the possibility to 232:19 engage in academic toxicology experts to help them in 232:20 their assessments. 232:21 Q. You just spent a significant part of the 232:22 last year focusing on all of the toxicology evidence 232:23 about whether glyphosate can cause cancer; is that 232:24 right? 232:25 A. Right.	Martens.254
233:2 - 233:4	**Martens, Mark 04-07-2017 (00:00:07)** 233:2 And was it just Monsanto's data and the 233:3 public -- publicly available published data that you 233:4 looked at?	Martens.255
233:7 - 234:15	**Martens, Mark 04-07-2017 (00:01:25)**	Martens.256

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233:7 THE WITNESS: No. Monsanto produced
233:8 three carcinogenicity studies, but the total number
233:9 of regulatory carcinogenicity studies was 12
233:10 carcinogenicity studies, because of the -- a lot of
233:11 the carcinogenicity studies have been produced by
233:12 other agrochemicals companies putting glyphosate into
233:13 the marketplace.
233:14 BY MR. GRIFFIS:
233:15 Q. And did you see all of those studies?
233:16 A. Yes.
233:17 Q. How many genotoxicity studies did you
233:18 focus on as part of your analysis?
233:19 A. In total, it was about 80 genotoxicity
233:20 studies.
233:21 Q. That's eight zero?
233:22 A. Eight zero.
233:23 Q. Did those -- did the regulators in Europe
233:24 that you were interacting with look at the Bolognesi
233:25 study and the other studies that you initially sent
234:1 to Dr. Parry in 1999?
234:2 A. Yes.
234:3 Q. That was among the body of studies that
234:4 they considered in reaching their conclusions?
234:5 A. It was the body of published literature
234:6 which also taken into consideration in the
234:7 assessment.
234:8 Q. And what was their conclusion?
234:9 A. Their conclusion is that the overall
234:10 weight of evidence and analysis indicated that
234:11 glyphosate was not genotoxic. And that conclusion
234:12 was reached at the European chemical -- the agency in
234:13 unanimity of all member states.
234:14 Q. How many member states were involved?
234:15 A. 28.

235:3 - 236:2 **Martens, Mark 04-07-2017 (00:01:10)** Martens.257

235:3 Q. Good afternoon, Dr. Martens. I am here
235:4 to ask just some follow-up questions. And so as a
235:5 result, my questions may bounce around a little as I
235:6 tried to just write down notes when your attorney was
235:7 asking you questions.

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235:8 Fair?
235:9 A. That's fair.
235:10 Q. Okay. So when we discuss dosage, that's
235:11 relating to the risk assessment, correct?
235:12 A. Yes.
235:13 Q. Okay. And there's no bright line on
235:14 dosage -- what dosage will cause an effect in a
235:15 person, correct?
235:16 A. Let me give you a little bit in a more
235:17 precise explanation is, when you study the effects of
235:18 a chemical and function of dose, that is a -- what is
235:19 called the dose-effect relationship establishment.
235:20 Okay?
235:21 Q. Mm-hmm.
235:22 A. From a dose-effect relationship
235:23 establishment, you derive from animal studies the
235:24 safe dose. That means the highest dose at which you
235:25 don't see any effect. And that dose, when that is
236:1 confronted with the level of exposure in reality, in
236:2 real life, that is risk assessment.

236:19 - 238:17 **Martens, Mark 04-07-2017 (00:02:05)** Martens.258

236:19 Q. Okay. And, in fact, it is very common in
236:20 toxicology to use high dose testing in animals,
236:21 correct?
236:22 A. Yes.
236:23 Q. And, in fact, it is more common than not
236:24 to use high dose testing in animals, correct?
236:25 A. Yes.
237:1 Q. Okay. And there's a good reason for
237:2 that, right?
237:3 A. Yes.
237:4 Q. Okay. And what's the reason?
237:5 A. The reason is that for testing in
237:6 animals, we are obliged by international, you know,
237:7 test guidelines to dose up until we have very clear
237:8 signals of toxicity. And then we select doses, and
237:9 the lowest dose is the dose at which we don't expect
237:10 to see toxicity, and there is an intermediate dose.
237:11 And that is -- the reason for that is actually to
237:12 establish a dose-effect relationship.

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	237:13 Q. Okay. And also if the normal incidence 237:14 of some effect is, let's say, one in a thousand or 237:15 one in 5,000, that means that if you -- it would take 237:16 a thousand or 5,000 animals to show that one time, 237:17 and tests don't use that many animals, do they? 237:18 A. They -- well, there is a compromise that 237:19 you -- you will have to achieve, and the compromise 237:20 for long-term carcinogenicity test is that you use 50 237:21 to 60 animals per sex per dose level. 237:22 Q. Exactly. So if you're only using 50 or 237:23 60 animals per sex per dose, you need to really use a 237:24 high dose analysis, correct? 237:25 A. Well, you need to actually to -- to dose 238:1 up, up to the maximum tolerated dose, to make sure if 238:2 the compound is carcinogenic, you won't miss it. 238:3 Q. Correct. And so when your attorney was 238:4 asking you all about the dosage that was used in 238:5 these studies that you analyzed, they were following 238:6 standards and practices that scientists use all over 238:7 the world, correct? 238:8 A. Yes. 238:9 Q. They weren't doing anything abnormal, 238:10 correct? 238:11 A. No. 238:12 Q. They were following the same practices 238:13 that scientists follow all over that give us results 238:14 that we -- that are accepted all over the world, 238:15 correct? 238:16 A. Yes, insofar they follow the 238:17 international accepted test guidelines.	
239:19 - 239:25	**Martens, Mark 04-07-2017 (00:00:22)** 239:19 Q. Okay. You will agree that animal testing 239:20 is very expensive. 239:21 A. Absolutely. 239:22 Q. Do you know the EPA's analysis or 239:23 position on what a, quote, unsafe chemical is? 239:24 A. I don't recall that specific test, no. 239:25 Or that specific text.	Martens.250
240:8 - 240:21	**Martens, Mark 04-07-2017 (00:00:32)** 240:8 Q. Sure. I'm just wondering because you	Martens.200

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	240:9 work and practice and most of the -- the stuff that 240:10 you do regulatory-wise is in Europe, correct? 240:11 A. Yes. 240:12 Q. You -- what portion of your practice do 240:13 you interact with the EPA and its guidelines? 240:14 A. Almost zero. 240:15 Q. Almost zero? 240:16 A. Yes. 240:17 Q. So you may not be familiar with the EPA's 240:18 definition of what an "unsafe chemical" is, correct? 240:19 A. I must have been aware of this before I 240:20 joined the pharmaceutical company. So sometime ago, 240:21 yes.	
241:14 - 242:5	**Martens, Mark 04-07-2017 (00:00:27)** 241:14 A. Yes. 241:15 Q. They were the Lioi -- how do you 241:16 pronounce that one again? 241:17 A. Lioi. 241:18 Q. Lioi. The two Lioi papers. 241:19 A. No, one Lioi paper. 241:20 Q. One Lioi paper, the Rank -- 241:21 A. Yes. 241:22 Q. -- the Bolognesi and the Peluso, right? 241:23 A. Yes. 241:24 Q. Were those studies conducted in labs that 241:25 were following good laboratory practices? 242:1 A. No. 242:2 Q. No. And how do you know that? 242:3 A. Because these were academic labs which 242:4 were not accredited for GLP; otherwise, that would 242:5 have been -- appeared in their publications.	Martens.201
242:24 - 243:12	**Martens, Mark 04-07-2017 (00:00:30)** 242:24 Q. Okay. And -- and your counsel said even 242:25 if a lab wasn't GLP operating, it could still be a 243:1 good lab. Correct? 243:2 A. Yes. 243:3 Q. Okay. Just because something's not GLP 243:4 doesn't mean it's a bad lab, right? 243:5 A. It doesn't mean it's bad science. 243:6 Q. Okay. And just because something is a	Martens.202

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	243:7 GLP lab doesn't mean it's good science, right?	
	243:8 A. That's right.	
	243:9 Q. So the GLP is just sort of a shortcut	
	243:10 like a marriage is a shortcut to a commitment, right?	
	243:11 A. No, no, no. The GLP is for what I would	
	243:12 call a process control.	
243:18 - 244:19	**Martens, Mark 04-07-2017 (00:00:57)**	Martens.263
	243:18 THE WITNESS: GLP is a process control	
	243:19 part, and has nothing to do with the science. It's	
	243:20 all to do with data control, data access, data	
	243:21 quality assurance.	
	243:22 BY MS. WAGSTAFF:	
	243:23 Q. Okay.	
	243:24 A. And there is a science part, and the	
	243:25 science part is taken care of in accordance with the	
	244:1 internationally agreed test guidelines.	
	244:2 Q. Okay. So I think we're on the same page	
	244:3 now that GLP labs can have good or bad science --	
	244:4 A. Mm-hmm.	
	244:5 Q. -- and non-GLP labs can have good or bad	
	244:6 science.	
	244:7 A. Yes.	
	244:8 Q. Okay. It really depends on the	
	244:9 scientists.	
	244:10 A. It depends on the scientists and the	
	244:11 structure of the laboratory.	
	244:12 Q. Okay. Gotcha.	
	244:13 And when was this GLP accreditation	
	244:14 process created?	
	244:15 A. It was created in the -- the end of the	
	244:16 '70s, beginning of the '80s.	
	244:17 Q. Okay.	
	244:18 A. Yeah, because it took a long time to	
	244:19 implement it in all laboratories, yeah.	
244:23 - 245:2	**Martens, Mark 04-07-2017 (00:00:17)**	Martens.264
	244:23 Q. Is it -- I assume, and correct me if I'm	
	244:24 wrong, but every laboratory has to be GLP accredited.	
	244:25 A. Every laboratory that produces data,	
	245:1 safety data that have to be submitted for regulatory	
	245:2 reasons needs to be GLP accredited.	

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246:5 - 247:25	**Martens, Mark 04-07-2017 (00:01:46)**	Martens.265

246:5 Q. So you're not involved in all of the --
246:6 the glyphosate reregistration processes over here in
246:7 the United States.
246:8 A. No. It's Europe.
246:9 Q. Okay. Now, you testified earlier that
246:10 Monsanto has done three long-term cancer studies --
246:11 A. Yes.
246:12 Q. -- involving glyphosate; is that right?
246:13 A. Yes.
246:14 Q. I believe you testified that two were rat
246:15 studies and one was a mouse study.
246:16 A. Yes.
246:17 Q. Is that right?
246:18 Who conducted those studies?
246:19 A. There was -- I've got to recall -- the
246:20 Knezevich and Hogan study was done by a contract
246:21 laboratory. The Stout and Ruecker study was done at
246:22 Monsanto. Yes.
246:23 Q. Okay. So that's two studies. What about
246:24 the third?
246:25 A. The third I believe is the Lankas study,
247:1 and I will have to check that out where it was
247:2 conducted. Yeah, I've got to check that out.
247:3 Q. Okay. So when you say Monsanto did three
247:4 studies, you mean they funded three studies?
247:5 A. They commissioned three studies, either
247:6 in their laboratory or in contract laboratories.
247:7 Q. Okay. And are those studies in published
247:8 literature?
247:9 A. No.
247:10 Q. No. So they're private --
247:11 A. Well, they've been summarized in reviews,
247:12 like, for example, the Williams review.
247:13 Q. Okay. Which is a Monsanto commissioned
247:14 review as well.
247:15 A. It's commissioned to an organization that
247:16 took care of the selection and the recruitment of
247:17 scientists to do that review.
247:18 Q. Yeah. So Monsanto did studies and then

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	247:19 hired someone to review the studies that they 247:20 conducted, right? 247:21 A. Yeah. In order to publish it. Yeah. 247:22 Q. Okay. But other than using Monsanto to 247:23 do the studies and then Monsanto to review the 247:24 studies, no one independently has peer reviewed those 247:25 studies, correct?	
248:3 - 248:11	**Martens, Mark 04-07-2017 (00:00:12)** 248:3 THE WITNESS: These studies have been 248:4 peer reviewed by the authorities. 248:5 BY MS. WAGSTAFF: 248:6 Q. What authorities? 248:7 A. Well, the authorities over all in the 248:8 world. 248:9 Q. Okay. So does the EPA have all of these 248:10 studies? 248:11 A. Yes.	Martens.206
248:18 - 249:10	**Martens, Mark 04-07-2017 (00:00:33)** 248:18 Q. Okay. And these other -- and then I 248:19 think you testified that there were eight other 248:20 studies. 248:21 A. Yes, in total there are 12 carcinogenic 248:22 studies. 248:23 Q. Okay. So then I guess that would be nine 248:24 other studies, right? 248:25 A. Yes. 249:1 Q. And who created those studies? 249:2 A. These studies have been commissioned by 249:3 other companies that put glyphosate into the 249:4 marketplace. 249:5 Q. Okay. And where would we find those 249:6 studies? 249:7 A. The best way and how to get insight in 249:8 those studies is actually to read the paper of Greim, 249:9 et al., where the results of those studies are 249:10 summarized.	Martens.207
249:20 - 250:2	**Martens, Mark 04-07-2017 (00:00:22)** 249:20 Q. Okay. So there are -- there are 12 249:21 studies that assess the carcinogenicity of glyphosate 249:22 that's -- that's not available for the public to	Martens.208

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	249:23 review or access; is that correct? 249:24 A. That's not entirely correct, because the 249:25 analysis, the evaluation, and the complete 250:1 description of the studies have been published by 250:2 Greim, et al.	
250:10 - 251:2	**Martens, Mark 04-07-2017 (00:00:44)** 250:10 Q. Okay. Who is he? 250:11 A. He is a cancer specialist, a German 250:12 cancer specialist. 250:13 Q. Okay. And who does he work for? 250:14 A. He's got -- well, he used to work 250:15 normally for government. He was the head of the MAC 250:16 Commission in Germany, who was responsible for the 250:17 environmental exposure levels for carcinogens. 250:18 Q. Okay. And who paid for that study? 250:19 A. All the companies that produced the 250:20 studies contributed to the -- this project. 250:21 Q. Okay. So the companies get together and 250:22 they do these studies where no one gets the results 250:23 or the data, and then they pay someone to summarize 250:24 all their studies -- 250:25 A. Yes. 251:1 Q. -- but they don't give anyone the actual 251:2 studies.	Martens.269
251:11 - 251:22	**Martens, Mark 04-07-2017 (00:00:26)** 251:11 Q. Is that correct? 251:12 A. The -- under a confidentiality agreement, 251:13 these studies must have been provided to Dr. Greim. 251:14 Q. Okay. So I could not -- could not find 251:15 those studies anywhere. 251:16 A. If you would be a toxicologist and you 251:17 would be under contract with a company, then you 251:18 would gain access to those studies. 251:19 Q. Okay. So I need to be employed by one of 251:20 those companies and sign a confidentiality agreement 251:21 to get access to these 12 cancer studies; is that 251:22 correct?	Martens.270
251:24 - 252:12	**Martens, Mark 04-07-2017 (00:00:29)** 251:24 too fast. If you would be an independent consultant, 251:25 like I am --	Martens.271

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	252:1 Q. Mm-hmm.	
	252:2 A. -- and I have been granted access to all	
	252:3 these studies for my -- my work in the European	
	252:4 Union, I signed confidentiality agreements with every	
	252:5 one of all those committees to gain full access to	
	252:6 these studies.	
	252:7 Q. Okay. And how long did you work for	
	252:8 Monsanto? How many years?	
	252:9 A. It was about 15 years.	
	252:10 Q. And you -- you view yourself as an	
	252:11 independent consultant?	
	252:12 A. Yes.	
252:13 - 252:18	**Martens, Mark 04-07-2017 (00:00:16)**	Martens.272
	252:13 Q. Okay. So the Farm Family Exposure Study	
	252:14 that you've been talking about, who funded that	
	252:15 study?	
	252:16 A. That was a Monsanto designed study.	
	252:17 Q. So Monsanto paid for that study to occur?	
	252:18 A. And Monsanto executed the study, yeah.	
252:19 - 253:3	**Martens, Mark 04-07-2017 (00:00:21)**	Martens.273
	252:19 Q. Okay. So other than for Monsanto, any	
	252:20 other company, have you ever interacted with the EPA,	
	252:21 the United States EPA?	
	252:22 A. No.	
	252:23 Q. So the only time you've interacted with	
	252:24 the EPA is in your role as a Monsanto employee?	
	252:25 A. Yes. And it was only for one substance,	
	253:1 I believe.	
	253:2 Q. And what substance was that?	
	253:3 A. Acetochlor.	
253:13 - 253:17	**Martens, Mark 04-07-2017 (00:00:11)**	Martens.274
	253:13 Q. You testified that in the Farm Family	
	253:14 Exposure, which is Monsanto's paid-for study, that	
	253:15 only 40 -- that 40 percent did not have glyphosate in	
	253:16 their urine. Was that your testimony?	
	253:17 A. Yes.	
254:5 - 254:15	**Martens, Mark 04-07-2017 (00:00:17)**	Martens.275
	254:5 BY MS. WAGSTAFF:	
	254:6 Q. And is it your testimony as you sit here	
	254:7 today that POEA is like soap?	

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	254:8 A. It's a detergent. 254:9 Q. So is it your testimony that POEA is like 254:10 soap? 254:11 A. Well, soap is a detergent. It acts like 254:12 soap -- 254:13 Q. Yeah. 254:14 A. -- and soap is a very general name for 254:15 detergent.	
254:22 - 255:2	**Martens, Mark 04-07-2017 (00:00:07)** 254:22 Q. So, yes, it is your testimony that POEA 254:23 is like soap? 254:24 A. It's like soap -- 254:25 Q. Yeah. 255:1 A. -- and the right definition is 255:2 "surfactant."	Martens.276

[redacted]

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Documents Shown
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