

IN THE CIRCUIT COURT
TWENTIETH JUDICIAL CIRCUIT
ST. CLAIR COUNTY, ILLINOIS

DIANA HOFFMANN,	)	
individually and as	)	
Independent Administrator	)	
of the Estate of THOMAS R.	)	No. 17-L-517
HOFFMANN, Deceased, et al.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	
SYNGENTA CROP PROTECTION,	)	
LLC, et al.,	)	
	)	
Defendants.	)	

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

VIDEOTAPED ZOOM DEPOSITION OF
SYNGENTA CROP PROTECTION, LLC

PHILIP BOTHAM
(Volume III, pages 498-834 inclusive)

Wednesday, June 17, 2020

Berkshire, England,
United Kingdom
(Deponent's location)

Reported by:
LEAH M. WILLERSDORF,
(AVR, MBIVR No. 166,
QRR2, International
Participating Member NCRA.)

Job No. 27625

1 (On the record at 10:20 a.m.)

2 THE VIDEOGRAPHER: This is the
3 continued videotaped deposition of
4 Dr. Philip Botham, in the matter of
5 Diana Hoffmann, individually and as
6 Independent Administrator of the Estate
7 of Thomas R. Hoffmann, Deceased, et al.,
8 versus Syngenta Crop Protection, LLC,
9 et al., in the Circuit Court, Twentieth
10 Judicial Circuit, St. Clair County,
11 Illinois, Case No. 17-L-517.

12 This deposition is being held
13 remotely via Zoom on June 17, 2020 at
14 10:20 a.m.

15 My name is Wendy Viner from
16 TransPerfect and I am the legal video
17 specialist. The court reporter today is
18 Leah Willersdorf, also with TransPerfect.

19 Could I ask all counsel to
20 introduce themselves for the record.

21 MR. TILLERY: For the plaintiff,
22 Steve Tillery.

23 MR. NARESH: For Syngenta,
24 Ragan Naresh, Kirkland & Ellis.

25 MR. TILLERY: All right.

1 A. Well, the --

2 Q. Excuse me, sir. We got a lot of
3 feedback. Let me start that question over.

4 Why don't you name me a single
5 long-term neurotoxicity study that Syngenta did
6 in the 1990s for paraquat?

7 A. Well, we -- for example, the
8 studies that were conducted by Louise Marks at
9 CTL which we discussed earlier.

10 Q. You understand that those didn't
11 occur until 2003?

12 A. Yes. I'm sorry, yes, that's
13 correct.

14 Q. So you certainly did those, and
15 we're going to talk a lot about those today and
16 we're going to study -- we're going to discuss
17 them.

18 My question to you is, you said
19 you did studies at this time period, or up
20 until the '90s. Tell me one study Syngenta
21 did, or Chevron did -- let's broaden it --
22 or ICI did through the '80s or '90s to evaluate
23 the neurotoxicity of paraquat on a long-term
24 exposure basis?

25 A. Okay. So one example would be in

1 the Nineteen -- which was definitely the
2 1990s, was a study that was published as
3 Widdowson, et al.

4 Q. Widnes?

5 A. Widdowson, et al. No, I'm sorry --

6 Q. Widdowson --

7 A. No, it was Naylor, et al.,
8 I'm sorry. Widdowson was the second author,
9 excuse me. It was Naylor, et al.

10 Q. And Naylor, et al. was one -- a
11 study that Syngenta did?

12 A. Yes. It was Zeneca at that time.

13 Q. Okay. Zeneca did a long-term
14 neurotoxicity study and -- where the primary
15 investigator was Naylor?

16 A. Yeah. It's -- it depends how you
17 define long term. This wasn't a long-term
18 toxicity study as would be understood in
19 regulatory guideline terms but it certainly
20 was looking at the potential for paraquat
21 to affect the nervous system.

22 Q. Okay. When was that study done?

23 A. It was published in 1995.

24 Q. Did Mr. Naylor work for Zeneca at
25 that time?

1 "... since it is not believed that
2 paraquat causes damage, there has been no study
3 on long-term effects."

4 So my question is, in 1975, 20 years
5 after it was discovered that paraquat could be
6 used to kill plants -- because that was in
7 1955, right?

8 A. Correct.

9 Q. -- ICI still had done no study
10 to investigate the long-term effects of
11 paraquat exposure on humans or animals.
12 Is that a correct statement?

13 A. That is correct.

14 Q. Okay. And would you agree that
15 without a long-term study of the effects of
16 paraquat exposure, a reasonable scientist could
17 not conclude that paraquat does not cause
18 long-term effects?

19 MR. NARESH: Objection to form.

20 THE WITNESS: Yes, that would be
21 a reasonable conclusion.

22 BY MR. TILLERY:

23 Q. Okay. ICI could have studied the
24 long-term effects of exposure to paraquat
25 in nonhuman primates before it began selling

1 it for use as a weed killer, couldn't it?

2 A. It could but, of course, before
3 selling it we're talking about a time where
4 perhaps this potential was not fully
5 understood.

6 Q. It could have done it, couldn't it?
7 Could you directly answer my question?

8 A. It could have been done, yes.

9 Q. But it didn't do that, did it?

10 A. It did not.

11 Q. Okay. And it hadn't done that
12 as of 1975 either, had it?

13 A. I'm not aware of it having done any
14 such study.

15 Q. And Chevron, to your knowledge, had
16 laboratories where those studies could
17 have been done as well, didn't it?

18 A. Chevron had laboratories. Whether
19 they had the type of labs that would be
20 required for a nonhuman primates study,
21 I don't know.

22 Q. But they could have certainly had
23 someone else do it if they wanted to, right?

24 A. They could.

25 Q. ICI could have studied the long-term

1 Hill, and Mr. Waitt was in the headquarters of
2 ICI, as it was then, in Fernhurst.

3 Q. All right. Now, if you'd read that
4 into the record, please.

5 A. You'd like me to read the paragraph
6 beginning "Secondly"?

7 Q. Yes, sir, if you wouldn't mind,
8 Dr. Botham.

9 A. "Secondly, we discussed last week
10 the point you raised about possible chronic
11 effects, which you see causing legal problems.
12 This is a quite terrible problem and, frankly,
13 I do not believe a satisfactory investigation
14 can be made. However, I think some plan could
15 be made and, to be as definitive as possible,
16 any study must be as free from doubt as
17 possible. Ideally, we need a fairly large
18 coherent group (say 50) who are exposed to
19 paraquat frequently over a long period, who
20 are exposed to no other pesticide or herbicide
21 and can be followed medically for several
22 years."

23 Q. Was that ever done?

24 A. I'm not aware of such a study
25 having been done.

1 Q. Okay. So Dr. Fletcher told
2 Dr. Cavalli that on November 11, 1975, that
3 he doesn't believe a satisfactory investigation
4 can be made into the chronic health effects of
5 paraquat exposure, correct?

6 A. That is what this says.

7 Q. All right.

8 If a manufacturer suspects possible
9 adverse health effects from chronic exposure
10 to its products, do you agree with me that
11 a satisfactory investigation of chronic health
12 effects should be made before the product is
13 sold?

14 MR. NARESH: Object to the form and
15 scope.

16 THE WITNESS: With today's
17 standards of how we would do that, that
18 is absolutely the case, but when we go
19 back in history, that was not necessarily
20 custom and practice.

21 BY MR. TILLERY:

22 Q. Okay. So it -- strike that.

23 Today you would do such studies
24 before you ever marketed paraquat, right?

25 A. We certainly would, yes. We would

1 do chronic studies, yes.

2 Q. Okay. So what you're saying is that
3 the standard in 1965 was different; you didn't
4 need to do that. Right? Is that --

5 A. That is correct.

6 Q. -- what you're saying?

7 MR. NARESH: Objection --

8 THE WITNESS: That is correct, yes.

9 BY MR. TILLERY:

10 Q. Okay. Could you tell me the
11 standard --

12 (Stenographer interruption.)

13 MR. NARESH: Oh, yes. Same
14 objections as before; scope and
15 foundation.

16 THE STENOGRAPHER: Thank you.

17 And the witness, sorry, you said --
18 you answered Yes that question?

19 THE WITNESS: Repeat the question,
20 please.

21 THE STENOGRAPHER: Yes. Yes.

22 So what --

23 MR. TILLERY: Absolutely.

24 THE STENOGRAPHER: Sorry.

25 MR. TILLERY: Absolutely. Let's

1 start over. Okay.

2 BY MR. TILLERY:

3 Q. So you're saying there was
4 a different standard in 1965 where Syngenta
5 would not have to do such studies if it
6 suspected possible adverse health effects from
7 chronic exposure to paraquat at that time,
8 correct?

9 A. That is actually, if I may say so,
10 a slightly different question. What
11 I answered before was that the custom and
12 practice before, when you were marketing
13 a new chemical, would be different to what
14 it is today in terms of the standards required
15 of testing.

16 Q. Well, I asked --

17 A. It --

18 Q. I'm sorry. Go ahead and finish your
19 answer, sir.

20 A. Yeah. You just asked the question
21 that if you had indications that there could
22 be adverse effects would you -- would you do
23 something differently. That is a slightly
24 different question.

25 Q. No, that's -- my original question

1 to you is simply this, I'll restate it. if the
2 manufacturer suspects possible adverse health
3 effects from chronic exposure to its product,
4 here paraquat, would you agree that
5 a satisfactory investigation of chronic health
6 effects should be made before the product
7 is sold?

8 That was my original question.
9 Can you answer that?

10 MR. NARESH: Object to form,
11 foundation and scope.

12 THE WITNESS: Yes. That's -- but
13 I don't -- the issue here is that the
14 suspicion of these chronic effects only
15 became apparent sometime after marketing
16 had started.

17 BY MR. TILLERY:

18 Q. And you're basing that on the fact
19 of -- the materials you've read, which does not
20 include the 1960 animal studies, correct?

21 A. Correct.

22 Q. So if I ask you to assume that there
23 were central nervous system signs in animal
24 studies at or about the time of the launch of
25 paraquat in 1965, would you agree with me that

1 it would have been the best course, before
2 paraquat was marketed, to evaluate the adverse
3 health effects from chronic exposure
4 to paraquat?

5 MR. NARESH: Same objections.

6 THE WITNESS: I am not able to
7 accurately ascertain whether that would
8 have been the right judgment at the time.

9 BY MR. TILLERY:

10 Q. So you can't answer my question,
11 is that what you're saying?

12 A. The way in which I would answer
13 your question would be that this is what
14 toxicologists do all the time. Adverse
15 effects are seen in animal studies, even
16 in today's world, and a judgment is made about
17 whether those findings could have relevance
18 for humans, and, in which case, whether it is
19 the right thing or not to do to market or sell
20 a product.

21 And that same judgment would
22 have been made at that time.

23 Q. So you don't see a different
24 standard when the evidence is there;
25 the standard that exists today would have

1 applied in 1965 based upon the evaluation
2 of available scientific evidence, correct?

3 A. The standard of making that
4 judgment, as I have just described it,
5 is indeed the same -- would have been the same
6 then as it is today.

7 Q. All right.

8 A. The difference, which is what I was
9 referring to before, is that the requirements
10 and the practice that was present in the
11 1960s, in terms of what you did, was different
12 to how it is today.

13 Q. When did it change over time?

14 A. This began to change in the 1970s
15 when --

16 Q. Okay.

17 A. -- regulatory guidelines for
18 toxicology testing began to emerge.

19 Q. Okay. So let's assume then -- pick
20 a date in the 1970s that you think applies
21 where the standard changed.

22 A. The standard changed in the late
23 1970s when guidelines were -- international
24 guidelines were beginning to be required for
25 the conduct of toxicology testing.

1 Q. So are you suggesting, then, that
2 if the science was in existence and the
3 regulatory standards were in existence, that
4 at that point in time, in the 1970s, that the
5 defendants, ICI-Syngenta, and Chevron, should
6 have at that time conducted studies
7 to determine adverse health effects from
8 chronic exposure to paraquat?

9 MR. NARESH: Objection to form,
10 foundation.

11 THE WITNESS: Are you referring to
12 a response to the effects that had
13 been -- that are reported in people who
14 have been exposed to paraquat?

15 BY MR. TILLERY:

16 Q. I'm referring to all of the
17 knowledge that Syngenta, through ICI, and
18 Chevron had at its disposal. Every bit of it.
19 Should they have conducted, at that time,
20 long-term neurotoxicity studies to evaluate
21 adverse health effects from chronic exposure
22 to paraquat?

23 A. They would -- they should have
24 conducted the long-term chronic toxicity
25 studies when those studies began to become

1 the standard practice for toxicology
2 reinforced by regulatory guidelines.

3 Q. Okay. So by the late '70s at the
4 latest, correct?

5 A. Correct.

6 Q. All right. Thank you.

7 Had either ICI or Chevron wanted
8 to perform a study of chronic exposure, either
9 or both of them could have done long-term study
10 in nonhuman primates to determine the central
11 nervous system effects, couldn't they?

12 A. They could have.

13 Q. Yes. Did either ICI or Chevron
14 conduct those studies before they put paraquat
15 on the market?

16 A. I don't believe that they did.

17 Q. Okay. Did they do any of them in
18 the '60s?

19 A. I'm not aware of such studies in
20 the nonhuman primate in the 1960s.

21 Q. ICI and Chevron could have done
22 a long-term study on nonhuman primates when
23 they learned that -- from an evaluation of
24 people's brains in autopsies that paraquat got
25 into the brain of human beings on ingestion.

1 They could have done it at that time, too,
2 couldn't they?

3 MR. NARESH: Objection to form.

4 THE WITNESS: They could have done
5 such a study.

6 BY MR. TILLERY:

7 Q. I'm sorry?

8 A. Yes, they could have done such
9 a study.

10 Q. And they didn't do it at that time
11 either, did they?

12 A. I'm not aware that such a study was
13 done.

14 Q. Did ICI assume that in poisoning
15 cases, paraquat got into the brain of the human
16 because of a high dose?

17 A. I --

18 Q. Or do you know one --

19 A. I don't know whether such an
20 assumption was made at that time.

21 Q. Okay. Did you know one way or
22 another whether your -- strike that.

23 You're the spokesperson here today
24 for Syngenta, not just 2020 but all the way
25 back to before the marketing and sale of

1 paraquat in the United States 1965. Do you
2 know whether Chevron assumed that, in poisoning
3 cases, paraquat got into the brain because of
4 high dose?

5 A. I don't know.

6 Q. All right.

7 Even assuming if they did, that
8 ICI and Chevron thought that, in poisoning
9 cases, paraquat got into the brain because of
10 the high dose, it certainly put ICI and Chevron
11 on notice that there was a way through which
12 paraquat could get into the brain, correct?

13 MR. NARESH: Objection to form.

14 THE WITNESS: That is one --
15 certainly one possibility. Again,
16 I cannot comment whether that was
17 something that was discussed at that
18 time.

19 BY MR. TILLERY:

20 Q. Well, let's simplify this. We're
21 going to go over a few studies or reports of
22 autopsies, and they will demonstrate,
23 I believe, to you that paraquat gets in the
24 brain. I'll show you these studies.

25 Now, all I'm asking you is, that

1 evidence would have put ICI and Chevron on
2 notice that through oral ingestion of the
3 product, at least through that source, paraquat
4 finds its way into the brain tissue. Correct?

5 MR. NARESH: Objection to form.

6 THE WITNESS: If such evidence was
7 available, then yes.

8 MR. TILLERY: All right.

9 This is Exhibit 16 for this
10 deposition. It will be referred to as
11 Botham Exhibit No. 16.

12 For counsel on this call, this is
13 SYNG-PQ-04263689. There are two parts
14 to this and we are going to show a second
15 component and, for counsel, that second
16 is going to be -- we are going to be
17 showing SYNG-PQ-04263571.

18 (Botham Exhibit 16 previously
19 marked for identification.)

20 BY MR. TILLERY:

21 Q. Now, can you pull up the first one,
22 please, for him. Is that on eDepoze for you
23 to see? Can you see it, Doctor?

24 A. I can -- yes, I could until
25 a moment ago. Yes, I can see it, yes.

1 Q. All right. Take your time and read
2 that.

3 MR. NARESH: I think you're in
4 presentation mode, Steve. Could you take
5 it out of presentation mode so that
6 he can review?

7 MR. TILLERY: It's just one page,
8 Ragan.

9 MR. NARESH: Thanks.

10 THE WITNESS: Okay, thank you.
11 I can now see that.

12 MR. TILLERY: And can you look
13 at -- can you pull up the second exhibit
14 as well. This is Exhibit No. 17. -- is
15 that correct? This is Exhibit No. 42,
16 I'm sorry.

17 (Botham Exhibit No. 42 marked for
18 identification.)

19 THE WITNESS: Okay. I have read
20 the first exhibit, Exhibit 16.

21 BY MR. TILLERY:

22 Q. Yeah. And the first exhibit says
23 that in March 1968 a Japanese woman swallowed
24 Gramoxone and died, and her autopsy revealed
25 that 8.6 -- and that says a unit of measure,

1 ug/g. And would you, for the ladies and
2 gentlemen of the jury, tell us what that
3 measurement is.

4 A. That says micrograms of paraquat
5 per gram of tissue, so 1 microgram is
6 a thousand -- one-thousandth of a gram.

7 Q. All right. So that's 8.6 micrograms
8 per gram of paraquat was found in her brain.

9 Do you see that?

10 A. Yes.

11 Q. And did Ken Fletcher of ICI say
12 about this that the tissue analysis results
13 were "rather higher than we would have expected
14 particularly in the brain, considering the
15 relatively small quantity that was taken"?

16 Is that what he's saying?

17 A. Yes, that's what it says.

18 Q. So in 1968, three years after this
19 product was first marketed in the United
20 States, ICI knew that swallowing a relatively
21 small amount of paraquat would result in
22 paraquat entering the brain, didn't it?

23 A. Yes.

24 Q. Several people at ICI were made
25 aware of this report, weren't they?

1 A. I --

2 MR. NARESH: Objection to form.

3 Go ahead.

4 THE WITNESS: I don't know what
5 that date might have been.

6 BY MR. TILLERY:

7 Q. Okay. Certainly by October 1958
8 ICI knew this, didn't it?

9 A. Well, this letter indicates that,
10 as it says here, dipyridyl appears to have
11 a moderate toxicity mainly by affecting the
12 central nervous system.

13 Q. Okay. And the date of this letter
14 is 1958, isn't it?

15 A. That's correct.

16 Q. Okay. So this is a letter from
17 J.C. Gage of the ICI medical department
18 to Dr. F.F. Snowdon as division toxicological
19 liaison officer at ICI, right?

20 A. Right.

21 Q. The letter indicates that the ICI
22 medical department has studied the toxicity of
23 2,2 dipyridyl by injection and by application
24 to the eye, correct?

25 A. Correct.

1 Q. And this -- he indicated that before
2 issuing a toxicological -- strike that.

3 He indicated that before issuing
4 a toxicological report, Mr. Gage was inquiring
5 whether there would be exposure to vapors
6 during distillation, correct?

7 A. Yeah, I think what it actually says
8 is that on the toxicological inquiry form that
9 came from Dr. Snowdon, that it was a question
10 about exposure to vapor during distillation.

11 Q. Okay. And this particular chemical
12 is what that they're looking at?

13 A. This is paraquat.

14 Q. All right. And he concludes the
15 first paragraph by saying that if fumes are
16 likely, his laboratory would attempt further
17 investigations, correct?

18 A. Correct.

19 Q. All right. And the final paragraph,
20 he informs Dr. Snowdon that 2,2 dipyridyl has
21 a moderate toxicity because it affects the
22 central nervous system, correct?

23 A. Correct.

24 MR. NARESH: Object to the form.

25 Go ahead, sorry.

1 BY MR. TILLERY:

2 Q. And this is about --

3 MR. TILLERY: Sorry, you were --

4 MR. NARESH: I --

5 MR. TILLERY: -- finished, Ragan?

6 MR. NARESH: Yes.

7 BY MR. TILLERY:

8 Q. This was about seven years before
9 paraquat was first sold in the United States,
10 right?

11 A. Correct.

12 Q. Now, after hearing that paraquat was
13 toxic by affecting the central nervous system
14 in 1958, what studies were undertaken
15 to determine just how it caused toxicity to the
16 central nervous system?

17 A. I --

18 MR. NARESH: Objection to form.

19 THE WITNESS: I don't know the
20 answer to that question.

21 BY MR. TILLERY:

22 Q. Were any neurotoxicity studies ever
23 undertaken before paraquat was sold in the US
24 seven years later?

25 A. I'm not sure what studies were

1 A. Yes.

2 Q. All right.

3 Does industry regulation or custom
4 require you to perform any testing on
5 pesticides before selling them in the United
6 States?

7 MR. NARESH: Objection; scope,
8 foundation.

9 THE WITNESS: You temporarily just
10 cut out there. Could you repeat that
11 question, please?

12 MR. TILLERY: Actually, I'm going
13 to withdraw it.

14 BY MR. TILLERY:

15 Q. In 1965, could Syngenta have done
16 a behavioral study using animals exposed
17 to paraquat for different periods of time,
18 at different doses and by different methods of
19 exposure to see whether paraquat caused any
20 detectable central nervous system effects?

21 MR. NARESH: Objection to form.

22 THE WITNESS: The technology would
23 have been available to do an
24 investigation of that sort, yes.

25 ///

1 BY MR. TILLERY:

2 Q. Was that done -- was that done --

3 A. I'm not aware that that was done.

4 No, I'm not aware that that was done.

5 Q. In 1965, was the technology
6 available to analyze brain tissues to see
7 if paraquat was present in the brain of test
8 animals exposed to it?

9 A. The technology was certainly
10 available to detect paraquat, yes.

11 Q. Was that done, to your knowledge?

12 A. In animals, I'm not sure whether
13 that was done at that time.

14 Q. Have you ever seen a study
15 indicating that it was done by Syngenta at that
16 time?

17 A. I don't recall studies from that
18 time.

19 Q. In 1965, was Syngenta able
20 to analyze postmortem brain tissues to see
21 if paraquat was present in paraquat-poisoning
22 cases?

23 A. Yes, I believe that's right.

24 Q. Were those studies done?

25 A. I think there were some studies

1 done, yes.

2 Q. That's done by being reported back
3 to Chevron of people who were poisoned and
4 killed, right?

5 A. Yes, correct.

6 Q. Did Syngenta or Chevron do any
7 on their own other than evaluating brain matter
8 that was sent to them by coroners from around
9 the country because these people had ingested
10 paraquat?

11 MR. NARESH: Objection; foundation.

12 THE WITNESS: I don't know.

13 BY MR. TILLERY:

14 Q. Okay.

15 In 1965, was the technology
16 available to count neuronal cell loss in people
17 exposed to paraquat?

18 A. I think that's not very likely.

19 Q. Okay. What do you base that opinion
20 on?

21 A. Well, there are two parts to that
22 question. One is you've indicated in people,
23 so that would mean in humans, and -- so that
24 would require very specialized histological
25 techniques to be done on human brain tissue,

1 and I'm not sure that the state of the science
2 at that time would have allowed that.

3 Q. Well, then let me change the
4 question a little bit. In 1965, was the
5 technology available to count neuronal cell
6 loss in animals exposed to paraquat?

7 A. Again, I think it would be -- it
8 would have been quite difficult to do that
9 because the technology and the stains and
10 microscopy were not available at that time.

11 Q. Okay. Were you practicing at that
12 time?

13 A. No, I was not. I was still at
14 school.

15 Q. Okay.

16 In 1964, were in vitro studies of
17 neuronal cell lines feasible?

18 A. Again, I can't accurately say but
19 I think it's not very likely because the
20 technology came somewhat later.

21 Q. When did it come?

22 A. You start to see studies in the
23 1970s and 1980s.

24 Q. Were nonhuman primate studies
25 feasible in 1965?

1 A. They were.

2 Q. Were other chemical manufacturers
3 testing their products on nonhuman primates
4 at that time, to your knowledge?

5 MR. NARESH: Objection. Objection;
6 foundation.

7 THE WITNESS: To my knowledge --
8 to my knowledge, certainly there were
9 some testing in nonhuman primates.

10 BY MR. TILLERY:

11 Q. Did Syngenta or its predecessors do
12 any nonhuman primate studies with paraquat
13 at that time?

14 A. They did. They were more
15 to investigate the acute toxicity of paraquat.

16 Q. Okay. So what study are you
17 referring to in 1965 on nonhuman primates that
18 Syngenta did?

19 A. Well, there were studies done
20 to look at how toxic, acutely toxic, paraquat
21 was in the nonhuman primate, and that
22 eventually led, after that date, to studies
23 to look at whether paraquat could be made
24 safer with regard to its acute toxicity.

25 Q. What I'm asking are the specific

1 from the paraquat/Parkinson's disease task
2 meeting at CTL on October 18, 2001, correct?

3 A. Correct.

4 Q. Okay. If we go down to 2, third
5 paragraph, it says:

6 "It is known that PQ .."

7 Is that referencing paraquat?

8 A. PQ is paraquat.

9 Q. Okay.

10 "It is known that PQ can give rise
11 to non-specific brain lesions in suicide cases
12 but even in such patients (who are [currently]
13 suffering irreversible multi-organ failure)
14 there is no evidence of functional
15 neurotoxicity. Diquat is known to cause brain
16 item infarcts but, again, only following high,
17 suicidal doses."

18 And then if we skip down, it says:

19 "On a 'weight of evidence' basis,
20 the Advisory Committee on Pesticides has
21 advised PSD ..."

22 What is that?

23 A. PSD is the Pesticides Safety
24 Directorate which was the regulatory authority
25 in the United Kingdom responsible for

1 pesticides.

2 Q. Would that be roughly the equivalent
3 of the EPA in the United States?

4 A. It's a much narrower remit, but,
5 yes, a similar function.

6 Q. All right.

7 "... has advised PSD ... there is no
8 basis to link PQ to neurotoxicity. The ACP
9 has, however, recommended an epidemiological
10 study to look at the possibility of a link
11 between pesticides and PD."

12 What does that stand for?

13 A. PD stands for Parkinson's disease.

14 Q. Okay.

15 Now, if you go to the end of this,
16 the last page, you'll see a reference to
17 number 11.

18 Do you see that?

19 A. I do.

20 Q. All right. And it says "Proposal
21 for" what? What word do they use?

22 A. Yeah, they use the term
23 "influencing strategy."

24 Q. Okay. So this is the word you
25 didn't like a few minutes ago when I was

1 animal model were likely to have
2 relevance to human beings. So this is
3 just step one in a two-step process;
4 animal toxicology, then looking for human
5 relevance.

6 BY MR. TILLERY:

7 Q. Well, let's look to -- I think this
8 is the same one. Let's go to 17 of that
9 exhibit and this is headed "Paraquat &
10 Parkinson's Disease," and that's at 705.

11 A. Yes. Sorry, it took me a while
12 to get there. I'm there now.

13 Q. And that's entitled "Paraquat &
14 Parkinson's Disease," right?

15 A. Yes, it is.

16 Q. And let's look at bullet number 2,
17 read that into the record. What did the
18 techno-regulatory team deem Dr. Cory-Slechta's
19 research to present? What did they call it?

20 A. "Threats to paraquat from the
21 recent scientific literature."

22 Q. All right, thank you.

23 Then if you go on to 708, which is
24 three pages later in that same document,
25 "Recent Literature Developments Of Concern."

1 A. Yes.

2 Q. "Cory-Slechta very vocal in her
3 calls for the risk to humans from paraquat
4 exposure be reassessed owing to: The use of
5 [paraquat] as a desiccant on cotton;
6 Occupational exposure leading to contamination
7 of workers and their families; Exposure to
8 paraquat in residential areas from spray drift.
9 Cory-Slechta connections with NGOs such as
10 PAN."

11 What does that mean?

12 A. That means that at that time there
13 was a belief that Dr. Cory-Slechta had some
14 kind of relationship with a non-governmental
15 organization, which is called Pesticide Action
16 Network.

17 Q. Okay.

18 If you'd go now to 690, under
19 "Objectives," and before you -- if you'd just
20 identify it first.

21 A. Okay. So I'm going back here.

22 Excuse me, I'm just trying to get
23 there. So it's 690. Yeah, sorry, I was one
24 behind, I've just got one more to click.

25 Yes, I'm there now, thank you.

1 Q. All right. If you take a look at
2 that, please. The purpose of the
3 techno-regulatory meeting in November 2004 was
4 to lay out a strategy for responding to the
5 emerging threat posed by the
6 paraquat/Parkinson's research of the
7 Cory-Slechta and Di Monte groups, wasn't it?

8 A. Yes.

9 Q. All right. And the objectives was
10 to confirm the RDT definition of issue and
11 threat, right?

12 A. Yes.

13 Q. Now, what is RDT an abbreviation
14 for?

15 A. I'm pretty sure it was regulatory
16 development team.

17 Q. Right. And the issue/threat is the
18 one we've already talked about, correct?

19 A. That's correct.

20 Q. And that issue/threat posed by the
21 paraquat/Parkinson's research of Cory-Slechta
22 and Di Monte, correct?

23 A. That was certainly one important
24 part of it, yes.

25 Q. And the potential for regulatory

1 It would certainly be to provide
2 a science-based -- independent science-based
3 position to the EPA.

4 Q. And would you agree that very
5 important for Syngenta to make sure people who
6 have critical feelings on paraquat are not
7 allowed on the SAP?

8 MR. NARESH: Objection to form.

9 THE WITNESS: I certainly wouldn't
10 want to put it that way. Again, speaking
11 personally, I don't think it would be
12 something that we should be attempting
13 to do, to say who or who should not be on
14 a panel of that sort.

15 BY MR. TILLERY:

16 Q. Right. In other words, you would
17 agree with me that a chemical company like
18 Syngenta should not be involved in working
19 behind the scenes to make sure certain people
20 aren't appointed to the scientific advisory
21 panel. Would you agree with that?

22 A. I mean, I, again, personally would
23 feel that that's an action that I wouldn't
24 feel comfortable with.

25 Q. Actually, you wouldn't feel

1 comfortable with it because you would consider
2 it to be, if not illegal, certainly highly
3 unethical, wouldn't you?

4 MR. NARESH: Objection to form,
5 foundation, scope.

6 THE WITNESS: I believe that it
7 is not -- it is certainly not within the
8 spirit of the code of conduct,
9 for example.

10 BY MR. TILLERY:

11 Q. The Code of Conduct of Syngenta,
12 it wouldn't be consistent with that, would it?

13 A. No, that's my interpretation of it
14 certainly.

15 Q. Well, do you know of any laws that
16 might be violated for a company, subject to the
17 regulation of a federal regulator, to try
18 to influence the membership of the advisory
19 panel that oversees their products? Do you
20 know anything about that?

21 MR. NARESH: Objection; form,
22 scope.

23 THE WITNESS: I'm not sufficiently
24 familiar with United States law to be
25 able to answer that question.

1 BY MR. TILLERY:

2 Q. Okay. Well, I want, before we get
3 into the next line of questions, to clarify
4 something about the status of certain employees
5 of Syngenta.

6 Greg Watson, what is his job in 2005
7 at Syngenta?

8 MR. NARESH: Objection; foundation,
9 scope.

10 THE WITNESS: Greg Watson was in
11 the United States, in the Syngenta United
12 States regulatory team. He was the --
13 I believe he was the lead regulatory
14 expert for herbicides.

15 BY MR. TILLERY:

16 Q. Mike Clapp?

17 MR. NARESH: Steve, just for the
18 record, I don't have a problem with you
19 asking these questions in his personal
20 capacity. I just have a standing
21 objection on scope.

22 MR. TILLERY: You do, sir.

23 BY MR. TILLERY:

24 Q. Go ahead.

25 A. Thank you.

1 Mike Clapp was the product
2 toxicologist at the Central Toxicology
3 Laboratory in the United Kingdom. The product
4 toxicologist for paraquat.

5 Q. Barry Elliott?

6 A. He succeeded Mike Clapp in that
7 same role.

8 Q. Tim Pastoor, what was his job in
9 2005?

10 A. Tim Pastoor at that time would
11 have been the head of human safety in the
12 United States Syngenta health assessment
13 organization.

14 Q. And Ian Wheals?

15 A. Ian at that time was in -- either
16 in the global or the European regulatory team,
17 based either in the UK or in Switzerland.
18 I'm not sure exactly where at that time.

19 Q. Lewis Smith, what was his job?

20 A. Lewis Smith had been the head of
21 CTL, and at some point he then transferred
22 to the head of development in Basel; and,
23 again, the dates, precise dates, I can't
24 recall.

25 Q. And then Nick Sturgess?

1 A. He was an investigative
2 toxicologist based at CTL.

3 Q. And John Doe?

4 A. John Doe took over from Lewis Smith
5 as the head of CTL. John was already in
6 another leadership position in CTL before
7 that.

8 Q. Okay.

9 MR. TILLERY: I want to direct your
10 attention to -- and this is the first
11 one --

12 MS. BRUMITT: 57.

13 MR. TILLERY: -- which would be
14 number 607.

15 MS. BRUMITT: Yeah, Exhibit 57.

16 MR. TILLERY: I'm sorry?

17 MS. BRUMITT: 57.

18 MR. TILLERY: This is Plaintiff's
19 Deposition Exhibit 57, and this is
20 SYNG-PQ-04206065 through 067.

21 If you'd take a look at these,
22 please.

23 (Botham Exhibit 57 marked for
24 identification.)

25 ///

1 BY MR. TILLERY:

2 Q. And when you're finished looking at
3 them, I'm going to ask you some questions about
4 them.

5 A. Okay, go ahead.

6 Q. Okay. This is a series of emails
7 between the individuals that I had you
8 identify, correct?

9 A. Yes, it is.

10 Q. And 042065 -- I'm sorry. 0426065,
11 if you look at that, I think that's the first
12 page.

13 A. Yes.

14 Q. Do you see it?

15 Greg Watson sent an email to some of
16 the other men about Dr. Deborah Cory-Slechta,
17 correct?

18 A. Correct.

19 Q. And that was dated December 7, 2005
20 [sic]?

21 A. Correct.

22 Q. Okay, do you see that?

23 A. Yes, I do.

24 Q. And Mike Clapp responded to Nick
25 Sturgess, Lewis Smith and John Doe, right?

1 A. Yes, he did.

2 Q. Read his email into the record,
3 please.

4 A. So Mike Clapp said:

5 "In case you have not seen ..." --

6 Sorry, I think the document is ...

7 MR. NARESH: Yeah. Steve, I think
8 you have it in presentation mode and it's
9 moving up and down, at least from my
10 perspective. It might be easier for the
11 witness if it's not in presentation mode.

12 MR. TILLERY: Okay. I didn't
13 understand what it was you're saying.
14 If it's not in presentation mode?

15 THE WITNESS: Yeah, because I can't
16 see the top of the document now.

17 MR. TILLERY: Okay --

18 MR. NARESH: Yeah, he can't control
19 the document in the --

20 MR. TILLERY: Oh, I'm sorry.

21 Yeah, can you let him have access
22 to it? Yeah. I'm sorry.

23 BY MR. TILLERY:

24 Q. Do you have it now, sir?

25 A. Yeah, okay, I can see the top of

1 the document now. So Mike Clapp wrote,
2 "Gentlemen ..." --

3 Q. Actually, Mike Clapp is at the
4 beginning, right?

5 A. Yes, he is.

6 Q. Okay. So it starts down a little
7 ways, doesn't it?

8 MR. NARESH: It's still showing up
9 for me in presentation mode. I can no
10 longer -- oh, here we go. It's out now.

11 BY MR. TILLERY:

12 Q. So if you'd look at the earlier one.
13 The way emails read, the earlier ones are at
14 the bottom and they go closer to the top
15 time-wise as we copy, don't they?
16 You understand that?

17 A. Yeah, yeah. Yeah.

18 Q. The same the way they would on
19 a computer screen, if you had a long exchange
20 with your friend, they would -- your earliest
21 emails would be at the top.

22 So if we look down here to the one
23 from December 7, 2004 from Greg Watson,
24 he sends that to Mike Clapp, Barry Elliott,
25 Tim Pastoor and Ian Wheals, Cc's Jerry Wells,

1 right?

2 A. Yes.

3 Q. And he references subject, "Inside
4 EPA story on last week's SAP - comments ..."
5 right?

6 A. Yes.

7 Q. And he says:

8 "Folks, Wanted to pass your way ...
9 given that Cory-Slechta was on the ..."

10 And how do you pronounce that word?

11 A. Dimethoate.

12 Q. "... dimethoate SAP FQPA Science
13 Review Board, raises her paraquat studies [in]
14 a different level with EPA. Brings stronger
15 focus on the need to have our follow-up on
16 developing our technical influencing plan,
17 tox panel/external expertise, & a potential
18 future SAP - as I believe Ian stated at our
19 last meeting at CTL needs to be a priority for
20 our next meeting."

21 Correct?

22 A. That's correct, that's what that
23 says.

24 Q. That's what it says. And then the
25 top, it has an email response from Mike Clapp

1 to Nick Sturgess, Lewis Smith and John Doe,
2 referencing "Cory-Slechta now on EPA SAP":

3 "Gentlemen ... Cory-Slechta now EPA
4 SAP. Not good news - but no indication of
5 activity on paraquat yet. Nick, Barry and
6 I will consider the next steps. Mike."

7 Were you aware of this?

8 A. No. As you can see, I wasn't
9 copied into this, so I don't --

10 Q. You weren't -- you weren't part of
11 this exchange, right?

12 A. No.

13 Q. Is this the first you're hearing
14 about any of this?

15 A. Well, directly, yes, but, I mean,
16 indirectly, I know that there were discussions
17 about the potential for an SAP on paraquat.

18 Q. Okay.

19 MR. TILLERY: So let's do this,
20 if we can, let's go to -- and this is
21 exhibit ...

22 What number?

23 MS. BRUMITT: 58.

24 MR. TILLERY: 58, Plaintiff's
25 Deposition Exhibit 58, and this is

1 SYNG-PQ-05705351 through 5352.

2 (Botham Exhibit 58 marked for
3 identification.)

4 MR. TILLERY: We release that
5 to you to look at.

6 THE WITNESS: Okay, that's come.
7 Okay. So I've read that.

8 BY MR. TILLERY:

9 Q. All right. This is a two mail --
10 strike that.

11 This is a two-page email string
12 involving even more people, isn't it? Even
13 more Syngenta people.

14 A. Yes.

15 Q. It starts at June 22, 2005, correct?

16 A. Yes.

17 Q. And let's identify those people.

18 Charles Breckenridge, Janis McFarland. Who is
19 Charles Breckenridge at that point?

20 A. Charles Breckenridge was a senior
21 toxicologist in the Syngenta health assessment
22 group in North America.

23 Q. And Janis McFarland, right?

24 A. Was the head of regulatory affairs
25 in North America for Syngenta.

1 Q. And Tim Pastoor?

2 A. The head of health assessment in
3 the Syngenta US team.

4 Q. Jennifer Shaw?

5 A. I believe Jennifer was in the
6 corporate affairs group of Syngenta in the US.

7 Q. Beth Carroll?

8 A. Likewise, same as Jennifer.

9 Q. And then Phil Botham. Is that you?

10 A. Yeah. That's me.

11 Q. You're involved in this personally,
12 right?

13 A. I was certainly copied into this,
14 and this is why, as I said earlier, I was
15 aware of the SAP debate.

16 Q. This email exchange started because
17 of an email Charles Breckenridge received from
18 Ray McAllister which starts on the page before.
19 Can you look at that?

20 A. Yes.

21 Q. And Ray McAllister was with CropLife
22 America, wasn't he?

23 A. He was.

24 Q. Very close friends with Syngenta,
25 right?

1 A. Well, I wouldn't --

2 MR. NARESH: Objection to form.

3 THE WITNESS: -- put it that way.

4 He was certainly very actively engaged

5 in professional activities with us.

6 BY MR. TILLERY:

7 Q. Okay. And Mr. McAllister was
8 warning Syngenta that Debbie Cory-Slechta had
9 been nominated to fill a vacancy on the EPA
10 Scientific Advisory Panel, correct?

11 A. Correct.

12 Q. He followed the formal notice of her
13 nomination?

14 A. Correct.

15 Q. By the Science Foundation.
16 Did you know that she was nominated by the
17 Science Foundation?

18 A. Well, I don't recall that but,
19 again, as I said earlier, I was aware of these
20 activities going on.

21 Q. Okay.

22 And the first email is 05705351,
23 Charles Breckenridge advises Janis McFarland
24 and Tim Pastoor of this development. That's
25 the first one, okay?

1 You see that?

2 A. Yes.

3 Q. And what does he say?

4 A. Charles says:

5 "This is important. We do not want
6 to have Cory-Slechta on the SAP core panel.
7 What action can be taken."

8 Q. Okay. And then there is a response.
9 From whom? Tim Pastoor?

10 A. That's right.

11 Q. And he says:

12 "We should move on this, but I'm not
13 sure how best to do so. Suggestions?
14 Phil ..., " he says.

15 And that's referencing you, right?

16 A. That's correct.

17 Q. "... we are mindful of the
18 sensitivities and need to feed our objections
19 in through effective channels."

20 Do you see that?

21 A. Yes, I see that.

22 Q. What's he mean by that, do you know?

23 A. Well, I -

24 Q. What did you take that -- you got
25 that email. What were your effective channels

1 you were going to use to feed in your
2 objections to Dr. Cory-Slechta's appointment
3 to the scientific advisory panel of the United
4 States EPA? What were they?

5 A. Well --

6 MR. NARESH: Objection; form,
7 foundation.

8 THE WITNESS: -- this was
9 absolutely the discussion that I recall
10 because I was mindful, and when he says
11 there "mindful of sensitivities"
12 I likewise was mindful of the fact that
13 we should not be trying to directly
14 influence the appointment of people to
15 the science advisory panel. But as
16 I did not understand the process by which
17 that happened, this was starting
18 a discussion about whether we could
19 better understand that.

20 BY MR. TILLERY:

21 Q. Okay. So we'll go -- let me just
22 explain to you, there's more emails coming,
23 okay.

24 So let's go to the top. There's
25 a Jennifer Shaw response, Wednesday, June 22,

1 2005. Do you see that?

2 A. Yes.

3 Q. And she's To Tim Pastoor and Beth
4 Carroll. And to who Cc? You.

5 A. To me. Yes, to me.

6 Q. Right?

7 A. Mmm-hmm.

8 Q. Okay. And she says what? Read her
9 entire comment into this record.

10 A. "Ray has a tough job to do in
11 providing comments that don't come back to
12 haunt CLA [CropLife America] and be used
13 against us. My suggestion would be provide
14 Ray with comments that are not seen to be
15 critical of the person but rather objectively
16 focus on the person's work products and
17 experience in the context of quality and
18 relevancy."

19 Q. So she had hatched a plan and she
20 was going to use Ray. And that's Ray
21 McAllister, right?

22 MR. NARESH: Objection to form.

23 THE WITNESS: Ray is Ray

24 McAllister, correct.

25 ///

1 BY MR. TILLERY:

2 Q. And then CLA is CropLife America,
3 right?

4 A. That's correct.

5 Q. So you were going to use Ray and
6 CropLife America to send information to the EPA
7 against the nomination of Dr. Cory-Slechta,
8 weren't you?

9 A. That was what was being considered
10 here, yes.

11 Q. Right. And that was being
12 considered. Now -- hold on a second.

13 MR. TILLERY: What is the next one?
14 That's 548.

15 MS. BRUMITT: 59.

16 MR. TILLERY: Let's go to
17 Exhibit 59. This is SYNG-05705349
18 through 50, Exhibit 59.

19 (Botham Exhibit 59 marked for
20 identification.)

21 BY MR. TILLERY:

22 Q. Again, it starts off at the bottom,
23 so if you'd look at that.

24 A. Yes. Okay, I've read that.

25 Q. All right.

1 So the following day, on -- is it
2 June 29 that you're looking at?

3 A. I'm looking at June 28.

4 Q. 28th, Tuesday?

5 A. Yeah.

6 Q. And you respond to everybody, don't
7 you?

8 A. I do.

9 Q. And on Tuesday, June 28, you respond
10 to Jerry Wells, Jonathan Akins, Tim Pastoor,
11 Donna Houghton, John Doe, Mike Clapp, Elliott
12 Barry, Beth Carroll, John Street, Greg Watson
13 on "Comments on SAP nominations" and you mark
14 it urgent.

15 Do you see where you did?

16 A. Yeah, I didn't make that mark
17 urgent. That was just a copy from somebody
18 else who put "urgent" further down.

19 Q. Okay. Okay. And you say:

20 "I've been trying to find out the
21 best way of doing this. The attached e-mail
22 from Jenny Shaw last week seemed like a
23 sensible approach ... I'm assuming you're now
24 trying to provide such comments to Ray?"

25 Is that what it says?

1 A. Yes, that's what it said.

2 Q. So you endorsed Jennifer Shaw's
3 approach of using Ray McAllister through
4 CropLife America to effectively ghost this for
5 Syngenta with the US EPA, right?

6 MR. NARESH: Objection to form.

7 THE WITNESS: So, as I said
8 earlier, I was trying to explore if --
9 the process through which nominations
10 on to this SOP -- SAP were approved, and
11 the advice that I was getting from my US
12 team is that it would be a legitimate way
13 forward, if we wished to do so, to
14 question whether a person had the
15 appropriate background to be a member of
16 the SAP.

17 MR. TILLERY: I move to strike your
18 answer as unresponsive.

19 BY MR. TILLERY:

20 Q. Did you or did you not approve
21 Jennifer Shaw's recommendation that we just
22 went over?

23 MR. NARESH: I'll object --

24 THE WITNESS: I said --

25 MR. NARESH: I'll object to the

1 form.

2 Go ahead. Sorry. I'm sorry.

3 THE WITNESS: Yeah. What I said
4 here is it seemed like a sensible
5 approach. This is not constituting an
6 approval.

7 MR. TILLERY: Okay.

8 BY MR. TILLERY:

9 Q. So you said:

10 "I've been trying to find out the
11 best way of doing this. The attached e-mail
12 from Jenny Shaw last week seemed like a
13 sensible approach. Tim - I'm assuming you're
14 now trying to provide such comments to Ray?"

15 And that was to Tim who?

16 A. Tim Pastoor.

17 Q. Tim Pastoor. So you say it's
18 a sensible approach and say now to Tim,
19 "I'm assuming you're putting those comments
20 together for Ray?"

21 That's your response, right?

22 A. That's right.

23 Q. Did you say any more to them at that
24 time?

25 A. I've got no recollection of whether

1 I might have said anything more.

2 Q. Okay.

3 MR. TILLERY: Now, let's go to
4 Exhibit 60, and that is SYNG-PQ-05707254.
5 (Botham Exhibit 60 marked for
6 identification.)

7 BY MR. TILLERY:

8 Q. This is an email from Greg Watson.
9 Do you see it?

10 A. I do.

11 Q. It's dated June 29, 2005, and it's
12 to Ray McAllister. And he says, "Confidential
13 - Comments on SAP Nominations. Importance:
14 High."

15 Do you see that?

16 A. Yes.

17 Q. And he says, "Dear Ray."

18 Let me read this in, the first
19 sentence, into the -- the first paragraph into
20 the record. You tell me if I'm reading it
21 correctly.

22 "I would ask that you handle our
23 comments with care & in such a way that they
24 cannot be attributed to Syngenta. Ray, I am
25 not aware of the common practice in these cases

1 - but it seems to me that this should be
2 submitted informally & NOT placed on the public
3 docket."

4 Is that what it says?

5 A. Yeah, it does say that.

6 Q. Okay. So let's make sure everybody
7 knows what that means. That means your
8 Syngenta representative is suggesting that this
9 comment go to the US EPA informally and not be
10 publicly filed, correct? Is that what it says?

11 A. That is what this is suggesting,
12 yes.

13 Q. All right.

14 And then, if you look on, it says --
15 he says:

16 "I enclose some comments on
17 Dr. Cory-Slechta from the perspective of
18 researchers who are close to ... Parkinson's
19 disease ... which has been a major focus of her
20 research effort."

21 Then he says -- if you look on,
22 he proposes a language to her. If you look
23 down in the third paragraph, he proposes the
24 language that CropLife America's Ray
25 McAllister's going to use to send in in this

1 private communication with the US EPA that's
2 not placed on the public docket, doesn't he?

3 MR. NARESH: Objection to form.

4 THE WITNESS: Yes, that's correct.

5 MR. TILLERY: Exactly what he did.

6 Now, let's move on to the next, and
7 this is 61. This is SYNG-PQ-00353198
8 through 3204.

9 (Botham Exhibit 61 marked for
10 identification.)

11 BY MR. TILLERY:

12 Q. We'll give you control of this
13 document. You take a look at it, please.

14 A. Okay. I can see what it is now.

15 Q. All right. Now if you go to the
16 very last page of that string, and that's
17 3204 -- actually, the last two pages. In the
18 bottom of the page before, it says a reference
19 to Stephen Knott. Do you see that?

20 A. Not quite there yet. Oh yes --

21 Q. Stephen Knott

22 A. Yeah. Stephen Knott, yes, US EPA.

23 Q. Okay. So this is an assistant
24 executive secretary, FIFRA Scientific Advisory
25 Panel, and he's with the United States EPA,

1 isn't he?

2 MR. NARESH: Objection; form.

3 THE WITNESS: This is what this
4 suggests, yes.

5 BY MR. TILLERY:

6 Q. Yeah, and it's US EPA Headquarters,
7 Ariel Rios Building, 1200 Pennsylvania Avenue,
8 N.W., Washington, DC. Right?

9 A. Yes.

10 Q. "Dear Steve ..."
11 Now, who signed that letter?

12 A. Ray McAllister.

13 Q. From CropLife America, right?

14 A. Yeah.

15 Q. And he's got a section on Deborah
16 Cory-Slechta, doesn't he?

17 A. That's right.

18 Q. And read that because you'll find it
19 to be very, very, very familiar, I believe,
20 Dr. Botham.

21 A. Yes.

22 Q. That is the language that Greg
23 Watson told him to write, isn't it? Do you
24 want to compare it?

25 A. It's -- yeah, no, it has

1 similarities, I agree.

2 Q. So that's the -- he did exactly what
3 you wanted; Greg Watson sent this letter on to
4 the US EPA, the language you wanted about
5 Deborah Cory-Slechta, and what does he say at
6 the very last sentence:

7 "... Cory-Slechta is not an
8 appropriate candidate for the scientific
9 advisory panel, based on these reservations."

10 Is that what he says?

11 A. That's what it says.

12 Q. He did exactly what you asked him
13 to do, right?

14 MR. NARESH: Object to form.

15 THE WITNESS: Well, not me
16 personally, no.

17 BY MR. TILLERY:

18 Q. So are you now in this or out of
19 this? Which way are you now?

20 MR. NARESH: Objection to form,
21 argumentative.

22 THE WITNESS: If you remember,
23 my question was if we -- can we
24 understand the process through which
25 members of the SAP are appointed, and

1 I was seeking advice about whether there
2 was a way in which we could provide input
3 to that, and the way in which that was
4 interpreted by my US colleagues was
5 to take this route. But, of course, as
6 you've seen, actually I was never copied
7 into the final versions of this so
8 I didn't see the final product, so that's
9 why I said, you know, it wasn't me that
10 was involved in the final part of this
11 process.

12 BY MR. TILLERY:

13 Q. Okay. So you just told them to do
14 it?

15 A. No, I said -- I repeat. I was
16 seeking advice from my US team for what the
17 process might be to query the membership of
18 SAPs, and that resulted in -- that was
19 a question to Tim Pastoor and the chain of
20 emails that followed resulted from that.

21 Q. So when -- in fact, when this was
22 sent in to the US EPA after a national science
23 foundation nominated her, there was a little
24 bit of pushback, wasn't there, okay, and they
25 were asking -- they came back to -- if you read

1 this exchange, they came back to Mr. McAllister
2 and said could you give us some more
3 information about Debbie Cory-Slechta, didn't
4 they?

5 MR. NARESH: Objection to form.

6 THE WITNESS: Yes, that's correct.

7 BY MR. TILLERY:

8 Q. Okay. And he came back to his
9 friends at Syngenta and said can you give me
10 more information about her, right?

11 MR. NARESH: Objection to form.

12 THE WITNESS: That is correct.

13 BY MR. TILLERY:

14 Q. Okay. And that's all laid out in
15 this exchange. And they went to different
16 people within the organization to find out what
17 could be said.

18 Now, if you'd go to 3200 of same
19 exhibit and look at the bottom where it says
20 Nick Sturgess.

21 Do you see that?

22 A. Yes. Yes, I'm there, yeah.

23 Q. Nick Sturgess writes on
24 September 16, 2005, "Guys," and he's referring
25 to Barry Elliott, Mike Clapp, Greg Watson,

1 "Comments on SAP nominations."

2 Do you see that?

3 A. Yes.

4 Q. He says:

5 "Guys, It is going to be very
6 difficult to pin something really specific on
7 D C-S ..."

8 That means Deborah Cory-Slechta,
9 doesn't it?

10 A. It does.

11 Q. "... since it is more of an overall
12 perception in her presentation style and
13 language which is not strictly objective and
14 lacks the complete story which would actually
15 put her findings [in] a more relevant
16 perspective. That said there may be some
17 angles as follows ..."

18 And then, if you go to the page --
19 next page of his email, he says she has made
20 verbal comments when presenting and answering
21 questions following her presentation at
22 different scientific meetings, one of which was
23 at the 20th International Neurotoxicology
24 Conference in Little Rock, and the 21st
25 International Neurotoxicology Conference in

1 Honolulu in February 2004.

2 Is that what he references?

3 A. Yes.

4 Q. And her -- the objection to her
5 was -- he puts it in quotes, from listening
6 to what she said, "'Our data support the need
7 for the PQ [that's paraquat] human health risk
8 assessment to be re-evaluated.'"

9 Right?

10 A. Correct.

11 Q. And she says:

12 "'Our data are in support of
13 anecdotal evidence from e-mail communications I
14 have had with farmers and their families
15 [which] have used PQ and have subsequently
16 developed Parkinson's disease.'"

17 Is that what Mr. Sturgess says?

18 A. It is.

19 Q. And he also comments similar things
20 she said in other presentations, correct?

21 A. Correct.

22 Q. Okay.

23 MR. TILLERY: Now, let's go to the
24 next exhibit, and that's to --

25 MR. NARESH: Steve, do you have

1 a while longer on this line of
2 questioning or are you reaching the end
3 of it?

4 MR. TILLERY: I'm just about at the
5 end of this, okay.

6 MR. NARESH: All right.

7 MR. TILLERY: All right.

8 MR. NARESH: Can we take a break
9 after this line of questioning?

10 MR. TILLERY: Yeah. I'm about --
11 right at the very end of this, with three
12 or four more minutes and we're done, then
13 we'll take a break, okay?

14 MR. NARESH: Okay.

15 MR. TILLERY: Okay. All right.
16 What is this one?

17 MS. BRUMITT: 62.

18 MR. TILLERY: 62?

19 MS. BRUMITT: Yes.

20 MR. TILLERY: All right. Let's go
21 to Plaintiff's Deposition Exhibit 62,
22 if you could look at that.

23 (Botham Exhibit 62 marked for
24 identification.)

25 THE WITNESS: Yeah, okay, I can see

1 that.

2 BY MR. TILLERY:

3 Q. In this email, Watson summarizes
4 what Syngenta has asked McAllister to write
5 in response to this as a follow-up inquiry from
6 the US EPA, right?

7 A. Yes.

8 Q. He says Debbie Cory-Slechta, this is
9 what we've done, and he tells them exactly what
10 to write. Okay.

11 Now, Syngenta was successful, wasn't
12 it?

13 MR. NARESH: Objection; form.

14 THE WITNESS: Successful in what?

15 BY MR. TILLERY:

16 Q. Well, were you aware that
17 Dr. Deborah Cory-Slechta's SAP nomination was
18 defeated?

19 A. To be honest with you, I may well
20 have known that at the time, but I'd forgotten
21 that.

22 Q. Oh, you'd forgotten, okay.

23 By defeating her nomination,
24 Syngenta removed a threat to their continued
25 sale of paraquat, didn't they?

1 A. They -- we believe that, as this
2 says, Dr. Cory --

3 Q. Can you answer my question. Can you
4 answer my question, sir? I know you want
5 to answer something else but -- I'll ask it
6 again.

7 A. Mmm.

8 Q. I'm asking a specific question.
9 By defeating Dr. Debbie Cory-Slechta's
10 nomination to the scientific advisory panel of
11 the US EPA, Syngenta removed a threat to the
12 continued sale of paraquat, didn't it?

13 MR. NARESH: I'll object to the
14 form.

15 THE WITNESS: A potential threat,
16 yes.

17 MR. TILLERY: Okay.

18 BY MR. TILLERY:

19 Q. Now, that really wasn't the end of
20 the chapter about Dr. Debbie Cory-Slechta's
21 appointment, was it?

22 A. Please elaborate.

23 Q. Well, she was nominated to the
24 advisory panel five years later by the National
25 Science Foundation.

1 MR. TILLERY: Okay, let's go to --
2 this is exhibit what? Sorry?

3 MS. BRUMITT: 63.

4 MR. TILLERY: 63. Pull that up.

5 (Botham Exhibit 63 marked for
6 identification.)

7 MR. TILLERY: And that's 552,
8 right?

9 MS. BRUMITT: Yes.

10 BY MR. TILLERY:

11 Q. If you'd look at this exhibit.

12 A. Okay, I can see that.

13 Q. All right. If you see that, what
14 this is is a August 3, 2010 email from Charles
15 Breckenridge to Lewis Smith. And to who else
16 on that line?

17 A. To me, yes. So this --

18 Q. Phil Botham.

19 A. This is indeed --

20 Q. Phil Botham.

21 A. Yes, that's right.

22 Q. Phil Botham, right. And to Alan
23 Nadel, who is the head of the legal department
24 for Syngenta Crop Protection, LLC, right?

25 MR. NARESH: Objection; form.

1 BY MR. TILLERY:

2 Q. And for Jonathan Sullivan, who is
3 a lawyer from Basel, right?

4 A. That is correct.

5 Q. All right. And what's it reference?
6 "SAP nominees - comment period," FIFRA SAP
7 nominations. What's he say? Read what he
8 said.

9 A. "Note that Cory-Slechta has been
10 nominated to become a permanent member of
11 the USEPA SAP. We should discuss whether we
12 wish to comment."

13 Q. Okay. And did you comment?

14 A. I've got -- I cannot remember
15 whether we did or not.

16 Q. Okay. Well, let me refresh your
17 recollection.

18 MR. TILLERY: Let's go to -- what
19 would this exhibit be?

20 MS. BRUMITT: 64.

21 MR. TILLERY: 64. Pull that up for
22 him.

23 (Botham Exhibit 64 marked for
24 identification.)

25 ///

1 BY MR. TILLERY:

2 Q. Go ahead and refresh yourself there,
3 too. The print is very small, Dr. Botham, but
4 it's -- I think you can probably adjust it on
5 your device to read it. This is how it was
6 presented to us.

7 A. Okay.

8 Q. All right. And if you look on that
9 exhibit at 192, which is the front page,
10 there's an email that's dated September 3,
11 2010, correct?

12 A. Yes.

13 Q. And that's from Dan Campbell, right?

14 A. Correct.

15 Q. And it's referencing comments on SAP
16 nominations. He sends that to Tim Pastoor,
17 right?

18 A. Yes.

19 Q. And that -- he says:

20 "Do you agree with this?"

21 And he writes:

22 "CropLife America recommends that
23 Dr. Deborah Cory-Slechta not be selected to
24 serve on the FIFRA SAP. Dr. Cory-Slechta
25 generally projects an anti-pesticide advocacy

1 through her research program. Her research
2 interpretations and views inappropriately
3 identify causal effects without quality data,
4 between pesticides and various diseases,
5 notably neurodevelopmental diseases
6 including ... "

7 What's that last word?

8 A. Parkinson's.

9 Q. Parkinson's disease, right, okay.

10 And he says:

11 "I think it works. Thanks. Dan."

12 Right?

13 A. Correct.

14 Q. All right.

15 MR. TILLERY: Now let's go to the
16 next exhibit. Which one?

17 MS. BRUMITT: 65.

18 MR. TILLERY: Number 65.

19 (Botham Exhibit 65 marked for
20 identification.)

21 BY MR. TILLERY:

22 Q. Take a look at that. This is
23 a CropLife America letter, September 3, 2010.
24 Correct?

25 A. Yes, correct.

1 Q. And it's directed to Dr. Frank
2 Sanders, US EPA, right?

3 A. Correct.

4 Q. It says, "Docket ID EPA...
5 Nominations to the FIFRA Scientific Advisory
6 Panel; Request for Comments," and he references
7 those numbers. August 4, 2010.

8 Do you see that?

9 A. Correct.

10 Q. And if you look on the second page
11 in the fourth paragraph, why don't you look at
12 that and tell me if that isn't exactly word for
13 word what Syngenta's Dan Campbell drafted and
14 sent out, saying, "Do you agree with this? ...
15 I think it works."

16 A. Yes.

17 Q. This is word for word.

18 A. Yes.

19 Q. So --

20 A. May I add at this point that
21 this is a perfectly --

22 Q. No, I'm asking --

23 MR. TILLERY: Excuse me, I move to
24 strike --

25 MR. NARESH: Steve. Steve --

1 MR. TILLERY: Your counsel can
2 raise it --

3 MR. NARESH: You can move to strike
4 it --

5 MR. TILLERY: Your counsel can
6 raise it --

7 MR. NARESH: He wants to --

8 MR. TILLERY: No, he cannot.
9 It's my deposition.

10 MR. NARESH: You can move to
11 strike --

12 MR. TILLERY: Not your deposition.
13 It isn't --

14 MR. NARESH: You can move to strike
15 it --

16 MR. TILLERY: It isn't. No,
17 it isn't. No, it isn't. You're not
18 doing it. Not with me.

19 MR. NARESH: Steve --

20 MR. TILLERY: I'm too old. Listen,
21 we are not.

22 BY MR. TILLERY:

23 Q. What's going to happen is you're
24 going to answer my questions and then he can
25 raise them. That's what you do.

1 MR. NARESH: Steve -- Steve, you've
2 cut off the witness multiple times --

3 MR. TILLERY: No -- well, listen,
4 I'm not --

5 MR. NARESH: Steve, you're not
6 even letting me talk.

7 MR. TILLERY: Make your objection.

8 MR. NARESH: You're not even
9 letting me talk.

10 MR. TILLERY: Make your objection.

11 MR. NARESH: My objection is you
12 keep cutting the witness off. If you
13 keep doing it --

14 MR. TILLERY: Well --

15 MR. NARESH: -- we'll have issues.
16 Let the witness answer the questions.
17 If you don't like the answers, then ask
18 a different question or move to strike
19 it, but you cannot cut the witness off
20 time and time again.

21 MR. TILLERY: We've got an -- we've
22 got an issue right now.

23 BY MR. TILLERY:

24 Q. Now I asked you a question.

25 My question to you is very simple: Is that

1 letter from CropLife America, on page 2, word
2 for word what Syngenta drafted? That
3 Mr. Campbell from Syngenta drafted, was that
4 what they sent to the US EPA? Was it or not?

5 A. Well, I've not done a document
6 compare but it is very similar, yes.

7 Q. You don't have any reason to suggest
8 it isn't, do you?

9 A. No, but that was the whole part of
10 the process; Syngenta was providing
11 information for CropLife America legitimately
12 to comment on recommendations to membership
13 of the SAP.

14 Q. Why didn't you do it yourself?
15 Why didn't Phil Botham write a letter, that
16 letter, to the US EPA?

17 A. Because this was not my
18 accountability. I was leading the Health
19 Science Team, the science part of this,
20 so that was not something that I was
21 responsible for.

22 Q. You went through a third party so
23 your identity could be hidden; that's the
24 truth, isn't it?

25 A. Not at all.

1 Q. That's the fact --

2 A. No. No, not at all.

3 Q. And what --

4 A. I --

5 Q. And what was your -- and were you
6 successful again?

7 MR. NARESH: I'll object to this

8 and the last three or four questions.

9 I don't know what the pending question

10 is. Could you please just ask whatever

11 the pending question is so he can answer.

12 BY MR. TILLERY:

13 Q. Were you successful again? Was her

14 nomination defeated? After the National

15 Science Foundation of the United States of

16 America nominated this scientist once again,

17 did you defeat her nomination a second time?

18 MR. NARESH: Objection to form.

19 THE WITNESS: Well, I'm going to

20 say the same as I did before because it's

21 the truth. I can't remember, and I think

22 that reflects that I was not directly

23 involved in this process.

24 BY MR. TILLERY:

25 Q. All right. So let's abbreviate the

1 third one. Were you aware of the fact that she
2 was nominated five years later to the SAP of
3 the United States Environmental Protection
4 Agency?

5 A. Clarify, please, five years later
6 than when?

7 Q. 2015. Nominated again. Were you
8 aware of that, four years --

9 A. I may have been but, as I say, it's
10 not an area that I've focused on at all in my
11 role.

12 Q. Did CropLife America get involved
13 for you again?

14 A. They may have done but I can't --
15 I can't recall that.

16 Q. Did you successfully beat back
17 a threat to paraquat once more --

18 MR. NARESH: Objection to form.

19 BY MR. TILLERY:

20 Q. -- over a period of 2005, 2010,
21 2015, defeat a scientist nominated by the
22 National Science Foundation? You defeated her
23 nomination to one of the most important
24 scientific panels in the United States. Would
25 you agree with that, sir?

1 MR. NARESH: Objection to form.

2 THE WITNESS: We were -- we were
3 entitled, I think, to provide an input
4 to that process on the basis, as it says
5 here, of the way in which we feel --
6 we felt Dr. Cory-Slechta projected the
7 implications of her research program.

8 MR. TILLERY: So we'll take a break
9 right now, okay.

10 THE VIDEOGRAPHER: We are going off
11 the record. The time is 3:13.

12 (Off the record.)

13 THE VIDEOGRAPHER: We are back on
14 the record. The time is 3:33.

15 BY MR. TILLERY:

16 Q. Dr. Botham, who is Dr. Donato
17 Di Monte?

18 A. He is a researcher in neurology who
19 was formerly based at the Parkinson's
20 Institute in North America. He is now at the
21 German center for neurotoxicological research.

22 Q. Okay. When he was at the
23 Parkinson's Institute in California he was the
24 director of fundamental research for the
25 institute, correct?

1 paraquat in squirrel monkeys, didn't he?

2 A. He did, yes.

3 Q. Were you there for that?

4 A. Yes, I was.

5 Q. Okay. And actually, it lists you
6 at the top of the page, that you were present
7 for this as part of the Health Science Team,
8 along with L.L. Smith, Breckenridge, Sturgess,
9 McFarland, Mewes, and others, right?

10 A. That's right.

11 Q. Okay. And there were some guest
12 speakers that were there as well. That
13 included Joan Abbott, David Brooks and Jeff
14 Wolf. Correct?

15 A. Correct.

16 Q. Who was Jeff Wolf again?

17 A. He was a consultant pathologist.

18 Q. Okay. Let's take a look at what
19 Syngenta recorded about Dr. Di Monte's
20 presentation in the meeting minutes.

21 Dr. Di Monte treated four squirrel
22 monkeys with paraquat, correct?

23 A. Correct.

24 Q. He gave the monkeys paraquat first
25 at 5 milligrams per kilogram of their body

1 weight, correct?

2 A. Yes.

3 Q. But at the 5 milligram doses,
4 monkeys died due to lung toxicity after the
5 second or third doses, correct?

6 A. That's right.

7 Q. Okay.

8 Now, lab mice and rats have
9 tolerated doses greater than 5 milligrams per
10 kilogram of body weight, haven't they?

11 A. Yes, they have. Yes.

12 Q. In your studies, lab mice have
13 tolerated paraquat up to 25 milligrams per
14 kilogram of their body weight; is that correct?

15 A. Yes, that's correct.

16 Q. But Dr. Di Monte's squirrel monkeys
17 died at one-fifth of that dose, didn't they?

18 A. Yes, they did.

19 Q. So Dr. --

20 A. Can I say, it was a different route
21 of administration. So this was subcutaneous.
22 The other -- the studies you're referring
23 to were intraperitoneal. That may have had
24 an effect.

25 Q. We're going to talk about that

1 later. But you would agree with me that
2 Dr. Di Monte's squirrel monkeys died at
3 one-fifth of the dose that the lab mice could
4 tolerate, correct?

5 A. Yes.

6 Q. Okay. So Dr. Di Monte's squirrel
7 monkeys were substantially more sensitive
8 to paraquat's toxicity than rodents, weren't
9 they?

10 A. Yes.

11 Q. And squirrel monkeys are primates,
12 right?

13 A. Yes.

14 Q. You and I are primates, right?

15 A. Yes.

16 Q. Dr. Di Monte reported, as a
17 preliminary assessment of his results, that
18 primates are more sensitive to systemic toxic
19 effects of paraquat. Correct, sir?

20 A. Correct.

21 Q. Dr. Di Monte lowered the dose to the
22 squirrel monkeys to 2.5 milligrams per kilogram
23 of body weight to keep the monkeys from dying?

24 A. That's what he did, yes.

25 Q. Okay. And no difference in the

1 numbers of dopaminergic neurons was observed;
2 is that what he said?

3 A. That's what he told us, yes.

4 Q. But alpha-synuclein was up-regulated
5 in paraquat-treated animals, correct?

6 A. That's what he told us, yes.

7 Q. And you knew at that time the role
8 of alpha-synuclein in Parkinson's disease,
9 didn't you?

10 A. We certainly knew that
11 alpha-synuclein was up-regulated in
12 Parkinson's, yes.

13 Q. But as you told us I think a few
14 minutes ago, Syngenta has never, at any time
15 in its history, corporate history, ever
16 undertaken an alpha-synuclein study with
17 respect to paraquat, correct?

18 A. That is correct because we've never
19 been clear exactly what the role of
20 alpha-synuclein actually is.

21 MR. TILLERY: I move to strike your
22 answer as unresponsive.

23 BY MR. TILLERY:

24 Q. Would you agree with me that at
25 no time in Syngenta's corporate history has

1 Syngenta ever undertaken a study of
2 alpha-synuclein with respect to paraquat?

3 A. Yes, that is correct.

4 Q. All right.

5 MR. TILLERY: Now let's go to the
6 next exhibit, please. What number is
7 that?

8 MS. BRUMITT: 71.

9 MR. TILLERY: 71, as she is loading
10 this document, is SYNG-PQ-01305484.

11 (Botham Exhibit 71 marked for
12 identification.)

13 BY MR. TILLERY:

14 Q. We're going to give this to you.
15 It's three pages. And then, please, if you
16 wouldn't mind, take a look at it.

17 A. Yeah, okay, I've done that.

18 Thank you.

19 MR. TILLERY: Take it back.

20 Right there would be good enough, if you
21 can hold it.

22 BY MR. TILLERY:

23 Q. So this particular exhibit,
24 number 71, is a summary of the notes made
25 during a presentation by Dr. Di Monte at the

1 Marlow meeting regarding his findings with
2 paraquat in the squirrel monkey. Correct?

3 A. Correct.

4 Q. It says the notes here were taken
5 in the presence of Syngenta's legal counsel.
6 We'll get back to that.

7 Do you see that?

8 A. I do.

9 Q. All right. Now, these notes were
10 made by Nick Sturgess in April 2009, correct?

11 A. That's correct.

12 Q. And if you see the third paragraph,
13 it says:

14 "Studies with [paraquat] PQ
15 conducted to replicate the mouse PQ dosing
16 regimen (3 x weekly doses of 5mg/kg PQ s.c.)"

17 What's the s.c. stand for?

18 A. Subcutaneous.

19 Q. Subcutaneous.

20 "... resulted in [at least] 50%
21 [and it says] lethality."

22 It means death, right?

23 A. It means that the animals died,
24 yes.

25 Q. So if you gave them that much,

1 you'd kill them?

2 A. Yes.

3 Q. "Loss of striatal dopamine was noted
4 in the dead animals, but this was not
5 quantified."

6 Do you see that?

7 A. Yes, I do.

8 Q. That was not recorded in the Health
9 Science Team minutes, was it?

10 A. No, that's correct.

11 Q. Okay. In the monkeys who were given
12 the lower dose of paraquat, Dr. Sturgess noted
13 that Di Monte did not observe a change in total
14 TH+ neurons, right?

15 A. Yes.

16 Q. Where does it say that?

17 "No effect on PQ on the number of
18 TH+ neurones was observed ..."

19 Do you see that?

20 A. Yes.

21 Q. Okay. But Dr. Di Monte did report
22 that detailed histochemical analysis indicated
23 a change in neuromelanin-staining phenotype of
24 some neurons when examined post -- examined
25 four weeks post dose.

1 Do you see that?

2 A. Yes. Yes. I can't see it at the
3 moment but I --

4 Q. That --

5 A. I'm sorry, I can't see it at the
6 moment, but, having looked at the document,
7 I know it's there. Sorry. You're still on
8 page 1.

9 Q. Yeah. And that finding wasn't
10 reported in the action/minutes either, was it?

11 A. No, the action/minutes don't go
12 into the level of detail that's here.

13 Q. Okay.

14 Dr. Di Monte observed a change in
15 the type of dopaminergic neurons in the
16 substantia nigra pars compacta in
17 paraquat-treated monkeys, didn't he?

18 A. He saw --

19 MR. NARESH: Steve --

20 THE WITNESS: Yeah. He saw a --

21 MR. NARESH: Sorry to interrupt
22 but can you -- I don't know that the
23 exhibit presentation is matching your
24 questions.

25 THE WITNESS: Yeah, that's what

1 I meant. Yeah. It does now.

2 MR. TILLERY: Okay.

3 THE WITNESS: You need to go --
4 it's on the next page as well.

5 MR. TILLERY: Okay. Let's go to
6 the next page.

7 (Off-the-record discussion
8 regarding electronic feedback.)

9 MR. TILLERY: So we're back on the
10 record.

11 BY MR. TILLERY:

12 Q. Have you had a chance to look at
13 this document as you would wish, sir, or is
14 there more that you want to see?

15 A. No, I think we were in the middle
16 of answering the question about the effect
17 in the squirrel monkey. Do you want to repeat
18 your question so that I can answer it fully?

19 Q. Yes, sir, I'll go back through
20 it for you.

21 Dr. Di Monte reported a detailed
22 histochemical analysis, indicated a change in
23 neuromelanin-staining phenotype of some neurons
24 when examined four weeks post dose.

25 A. Yes, he did, and -- so what you've

1 got in front of you now is part of that.

2 So there are two more lines on the next page.

3 So, yes, he reported to us that the
4 TH-positive cells, which are the ones that are
5 routinely measured in the mouse model, were
6 unchanged, so the dopaminergic neurones that
7 are normally assumed to be the focus in
8 Parkinson's disease were unchanged.

9 The change was in --

10 Q. Right --

11 A. -- neuromelanin staining, and there
12 was no clear conclusion about what the
13 relevance of that was.

14 Q. Well, it says at the top of the
15 page:

16 "The ratio of TH+ & neuromelanin
17 staining neurons to neuromelanin only staining
18 neurons changed in the group dosed with PQ and
19 assessed 4 weeks post dose."

20 Do you see that?

21 A. Yes, that's right, and that's
22 because --

23 Q. That's what he said?

24 A. Yeah.

25 Q. I'm asking if you see that.

1 A. Yes.

2 Q. Is this what he reports to you?

3 A. That's correct, yes.

4 Q. Okay?

5 A. Yes.

6 Q. Dr. Di Monte observed a change in
7 the type of dopaminergic neurons in the
8 substantia nigra in paraquat-treated monkeys,
9 right?

10 A. I think -- what I'm not -- I don't
11 think we were clear about at the time, and
12 I'm still not clear about now, is whether the
13 cells stained with neuromelanin were actually
14 dopaminergic neurones and whether they were
15 different.

16 Q. Okay. In paraquat-treated monkeys
17 there was an increase in neurons that contained
18 neuromelanin only --

19 A. Yes, that's correct.

20 Q. -- correct?

21 A. That's correct.

22 Q. Those neurons were not
23 immunoreactive for TH, correct?

24 A. That's right, yes.

25 Q. Okay. Which means they cannot

1 produce dopamine; is that right?

2 A. Which is what I was inferring, yes,
3 and therefore it says, as it says there,
4 "The toxicological significance of this
5 apparent ... change is unclear." So that's
6 exactly what my memory was telling me as well.

7 Q. Well, it means they can't produce
8 dopamine, right?

9 A. It means that it doesn't -- yes,
10 first of all, they don't produce dopamine,
11 and, secondly, partly as a consequence of
12 that, their relevance to Parkinson's pathology
13 is not clear.

14 Q. Well, as a scientist, you're aware
15 that -- those that you would consider
16 neuromelanin cells are considered -- strike the
17 question.

18 There's a decrease in neurons that
19 contain both TH+ and neuromelanin, right?

20 A. Yes.

21 Q. Neurons that contain both TH+ and
22 neuromelanin can produce dopamine, correct?

23 A. That's possibly true, yes. I mean,
24 I need to remind myself exactly of the detail
25 here but I think that's right.

1 Q. Compared to controls,
2 paraquat-treated monkeys had fewer of these
3 neurons that contained both TH+ and
4 neuromelanin, correct?

5 A. Yes.

6 Q. Now, if you turn to the first
7 paragraph on page 2, do you see that?

8 A. Yes.

9 Q. Dr. Di Monte reported that the ratio
10 of neurons that contained both TH+ and
11 neuromelanin, that the number of neurons that
12 only contained neuromelanin changed with
13 paraquat treatment, didn't he?

14 A. Yes.

15 Q. The ratio went down, didn't it?

16 A. Yes, because the number of cells
17 which were neuromelanin only went up, so the
18 ratio therefore went down.

19 Q. In the third paragraph,
20 Dr. Di Monte's preliminary conclusions are
21 noted, right?

22 A. Yes.

23 Q. Please read that paragraph.

24 A. To myself or out loud?

25 Q. The conclusion. Read it out loud.

1 the section marked "Data Requirements: EPA
2 Guidelines," does that mean that the study was
3 performed in accordance with data requirements
4 for residue chemistry studies issued by the
5 US EPA?

6 A. Yeah, I guess that's right, yes,
7 I wasn't involved in the --

8 (Stenographer interruption.)

9 BY MR. TILLERY:

10 Q. Does that mean that this study was
11 performed in accordance with the data
12 requirements for residue chemistry studies
13 issued by the United States EPA?

14 A. Yes, I believe that's the case.

15 Q. But this study was never submitted
16 to the US EPA, was it?

17 A. I don't know. I can't confirm
18 that.

19 Q. And the results of the study were
20 never disclosed, to this day, to the United
21 States EPA, were they?

22 A. I can't confirm that.

23 Q. Or any other regulatory agency for
24 that matter, right?

25 A. Again, I can't confirm that.