

1 will be overruled. And you may have a
2 running objection, the same objection, to
3 all of this line of testimony without
4 repeating the objection.

5 MR. JONES: That will be fine, Judge.
6 We don't want to disrupt the proceedings.
7 As I understand it then, we have a running
8 objection on not just this deposition but
9 all other depositions which --

10 THE COURT: Yes.

11 MR. JONES: -- or testimony which
12 reference IBT matters.

13 THE COURT: If there are any additional
14 objections, of course, you may state those.
15 But for the objections that you have stated,
16 it will apply to all testimony which the
17 defendant objects to upon the grounds that
18 you have stated.

19 MR. JONES: Thank you, Your Honor.

20 THE COURT: All right.

21 MS. BAKER: All right. For our
22 summary, before proceeding with questions
23 and answers: George Roush, Jr., is
24 currently the director of medicine and
25 health sciences at Monsanto Company, a

1 position he has held since 1974. He is an
2 M.D. with a master's in public health, board
3 certified in occupational medicine. He
4 reported to Mr. Throdahl, with whom he
5 consulted on personnel decisions, including
6 salaries, incentive awards, and terminations
7 involving salaried persons. Through Dr.
8 George Levinskys, he assigned
9 responsibilities to Dr. Paul Wright.

10 And we are beginning our offer with
11 Page 18 at line 12.

12
13 (Reading from video deposition)

14 Q What sort of conduct would give rise to a
15 recommendation or a decision by you to terminate
16 an employee whom you administered?

17 A Usually it would be for missing work, poor
18 performance at work. And usually it would be in
19 the hourly people. And I'm -- I'm speaking in
20 generality because I really can't recall any in
21 which I had a problem come up that we had to fire
22 someone. It's that rare.

23 Q Do you recall terminating any salaried
24 professional employee?

25 A We did have one who was terminated, and that

1 was done without my participation.

2 Q Who was that?

3 A Paul Wright.

4 Q When was Mr. Wright terminated?

5 A I can't answer that; I don't remember the
6 date.

7 Q Do you remember approximately when he was
8 terminated?

9 A It was such a long procedure, it's difficult
10 to say. I would expect it was four years ago,
11 something like that.

12 Q How was it that Mr. Wright's termination
13 occurred without your involvement?

14 A There was a -- I don't know the legal term.
15 There was an investigation of the operations of
16 the Industrial Biotech laboratories in Chicago
17 concerning the conduct of experiments there. And
18 it was -- the investigation was by the
19 government. And I'm not sure what phase of it --
20 but it was started by -- the investigation, I
21 think, was by the FDA. And Paul Wright had
22 worked at Industrial Biotech before he came to
23 Monsanto. And that was before I joined Monsanto;
24 so, I can't speak from -- as I recall, Paul had
25 been working for IBT for several years and then

1 came back to join our toxicology division. And
2 then when this lawsuit began --

3 Q You're talking about the investigation --

4 A Yes.

5 Q -- by the government?

6 A No. When the lawsuit began.

7 Q What lawsuit?

8 A The lawsuit against IBT.

9 Q Okay.

10 A And Paul became one of the defendants. I
11 think that's the correct term. And the reason I
12 have to say "I think" is because we were not a
13 part of it, and I was not knowledgeable of what
14 was taking thing or anything. I was completely
15 beyond -- it was completely beyond my
16 understanding. When that lawsuit began -- and he
17 was now being on trial -- we put him on leave of
18 absence -- not my say so. That was the way the
19 legal or someone -- personnel had decided.

20 (End of reading)

21

22 THE COURT: Just a minute.

23 MR. SHOEBOOTHAM: Your Honor, on behalf
24 of Monsanto, I wanted to interpose the same
25 objection on the same grounds as Mr. Jones

1 just interjected with regard to IBT matters.
2 I would also like to ask the Court for a
3 running objection on the same grounds as to
4 any testimony concerning Mr. Paul Wright,
5 Dr. Paul Wright, and his relationship with
6 IBT, including the grounds of relevancy and
7 undue prejudice.

8 THE COURT: The Court will grant the
9 attorney's request.

10 MR. SHOEBOOTHAM: Thank you, Your Honor.

11 THE COURT: You may have a running
12 objection.

13
14 (Reading from video deposition)

15 A -- that was the way legal or someone --
16 personnel had decided. That was beyond me
17 because it wasn't anything to do with his
18 function with us.

19 Q Uh-huh.

20 A And they put him on leave of absence. And
21 from then on, I don't know anything about --
22 anything about the trial or anything that took
23 place or why or anything substantive about that,
24 because that was nothing to do with me. And when
25 the trial was over and he was convicted -- if

1 that's the right term -- then he was separated
2 from Monsanto.
3 (End of reading)

4
5 MS. BAKER: And continuing at Page 38,
6 line 25.

7
8 (Reading from video deposition)

9 Q Now, let me ask you to look at the second
10 recommendation, the 1976 recommendation for the
11 incentive program participation. The award
12 category is stated on the document to be:
13 technical accomplishment of significant results.
14 What does that mean?

15 A We could look at those who we were
16 recommending for incentive award that had done
17 something that was more than we expected out of
18 most -- the people who were clearly above what
19 the rest of the people in the department were
20 getting.

11
21 Q Well, I guess that's what I'm trying to find
22 out, is whether that is a specific category for
23 the award. It says "award category," and it says
24 "technical accomplishment of significant
25 results." And the reason I'm asking, in that

12 1 same blank on the preceding award in 1975, the
2 award category was quote, "solution to product
3 toxicity problem which permitted Monsanto to
4 continue product manufacturing and sale." Is
5 that a different category from this category?

6 A No, sir, no, sir. I think it was just the
7 way George Levinskys had decided to fill it in.

8 Q There weren't specific categories?

9 A No, no, sir.

10 Q Just a description of what was going?

11 A Yes, sir.

12 (End of reading)

13
14 MS. BAKER: And at Page 42 at line 2.

15
16 (Reading from video deposition)

17 Q One could have described the 1976 award
18 exactly the same way the 1975 award was
19 described, couldn't they?

20 A Yes.

21 Q Because, in fact, the 1976 award was also
22 given for "solution to product toxicity problem
23 which permitted Monsanto to continue product
24 manufacturing and sale."

25 A Yes, sir.

1 (End of reading)

2
3 MS. BAKER: And continuing at Page 56,
4 line 16.

5
6 (Reading from video deposition)

7 Q If you will go to the middle of the second
8 paragraph and read with me, doesn't it say, "in
9 the former instance" -- and that's talking about
10 the PCBs, isn't it?

11 A Yes.

12 Q "In the former instance, his excellent
13 analysis and synthesis of widely scattered
14 observations played a prominent role in
15 forestalling EPA's promulgation of EPA's proposed
16 regulations -- would have precluded the use of
17 these materials by Monsanto's customers."

18 Isn't that what the award was all about?

19 A Yes.

20 (End of reading)

21
22 MS. BAKER: At Page 60, line 2.

23
24 (Reading from video deposition)

25 Q Had the government regulations not been

1 forestalled by Dr. Wright, Monsanto would have
2 had to stop producing and selling PCBs earlier
3 than it did, wouldn't it?

4 A If, in fact, they had put that regulation
5 through before we stopped selling them.

6 Q And the reason that Dr. Wright's work is
7 praised is because his work played a prominent
8 role in forestalling the EPA's promulgation of
9 those regulations; isn't that correct?

10 A We forestalled the promulgation of
11 unrealistic regulations.

12 Q Now, the term "unrealistic" is what
13 Monsanto's view of the regulations was, wasn't
14 it?

15 A I think if we got that information out, you
16 would find that they were unrealistic in terms of
17 whether man could live with these kinds of
18 levels. That's what it really was.

19 (End of reading).

20

21 MS. BAKER: And continuing on Page
22 61 -- at the bottom of Page 60, with line
23 25.

24

25 (Reading from video deposition)

1 Q I see. Did you agree with the EPA that
2 discharges of PCBs above their proposed
3 regulation would be harmful to human health?

4 A No, sir.

5 (End of reading)

6

7 MS. BAKER: Continuing at Page 63, line
8 23.

9

10 (Reading from video deposition)

11 Q Okay. Did you have any interest in
12 following this IBT matter?

13 A I liked Paul, and I was interested from a
14 personal viewpoint.

15 Q Did you have any professional interest in
16 it?

17 A I didn't even know what the subject was to
18 be able to have a professional interest.

19 Q Well, did you -- did you know that Monsanto
20 had had a long, extensive relationship with IBT?

21 A Yes. They sure did.

22 Q They tested a lot of chemicals?

23 A Yes, it did.

24 Q And did you understand that the charges that
25 were being made against Paul Wright and other IBT

1 employees were that they had falsified studies?

2 A Yes.

3 Q Including studies done for Monsanto?

4 A Yes.

5 Q Didn't that cause you to have a professional
6 interest on behalf of Monsanto about whether or
7 not the studies that IBT had done for Monsanto
8 were accurate or inaccurate?

9 A Yes.

10 Q And among the studies that IBT had done for
11 Monsanto were studies of PCBs?

12 A Yes.

13 Q These products where there was a question or
14 a problem with their toxicity to humans, correct?

15 A Yes.

16 Q Didn't the indictments and the progress of
17 the prosecution of that criminal case cause you
18 to have a professional interest with regard to
19 the validity of the studies done by IBT for
20 Monsanto about PCBs?

21 A Yes. But I didn't relate them as when you
22 said "professional."

23 Q I see. You are aware, are you not, of the
24 fact that the only chronic toxicity studies done
25 for Monsanto with regard to PCBs are all done by

1 IBT, are not you?

2 A Yes.

3 Q So, the only source of data that Monsanto
4 had ever developed with regard to chronic
5 toxicity of PCBs related to the validity of the
6 work done for it by IBT?

7 A Yes.

8 Q Given that fact, wasn't it a matter of
9 concern to you about whether IBT ran a lab that
10 was accurate or whether it was a lab that
11 falsified its data?

12 A Yes.

13 Q And as a result of the criminal convictions,
14 did you reach the conclusion that IBT had been
15 shown to be a lab that falsified data?

16 A Again, I didn't know what the results of
17 that trial was.

18 Q You never knew that Paul Wright was
19 convicted?

20 A Oh, yes, I knew he was convicted; but I
21 wasn't sure of the substance of what -- what
22 that -- what they had really found.

23 Q You didn't follow it closely enough to know
24 what the allegations against IBT were?

25 A Yes.

1 (End of reading)

2

3

THE COURT: Let's avoid the dramatics,

4

Ms. Baker.

5

MS. BAKER: Yes, sir.

6

THE COURT: Thank you.

7

8

(Reading from video deposition)

9

A Yes. But I wasn't sure what that meant in

10

terms of what was taking place.

11

Q Well, did you understand it meant that they

12

hadn't been running tests correctly?

13

A I knew that was the allegation, but I'm not

14

sure what the substance of that meant -- was.

15

Q Well, was it sufficient or of interest to

16

you that there was an allegation that the tests

17

hadn't been run correctly and a jury convicted

18

Mr. Wright of being involved in that scheme?

19

A Yes.

20

Q And knowing that and no more than that, ←

21

didn't that cause you to have some serious doubts

22

about the validity of any study that IBT did for

23

Monsanto?

24

A Yes.

25

Q Including the PCB studies?

1 A Yes.

2 (End of reading)

3

4 MS. BAKER: And continuing at Page 74
5 at line 2.

6

7 (Reading from video deposition)

8 Q Let me stop right there. You looked at
9 slides taken from the rats that were studied by
10 IBT, with Aroclor 1260?

11 A Yes.

12 Q And those slides showed severe liver damage
13 as a result of chronic exposure?

14 A Yes.

15 (End of reading)

16

17 MS. BAKER: Continuing to Page 84, line
18 16.

19

20 (Reading from video deposition)

21 Q The Japanese studies, do they have qualified
22 researchers to study cancer in Japan?

23 A They would say so.

24 Q Well, do you say so?

25 A Yes.

1 Q In fact, some of the foremost cancer
2 researchers in the world are in Japan, are they
3 not?

4 A Yes.

5 (End of reading)

6

7 MS. BAKER: And continuing on Page 86
8 at line 3.

9

10 (Reading from video deposition)

11 Q Did you as medical director of Monsanto take
12 any interest in studies done of the
13 cancer-causing properties of PCBs, other than
14 those done in the United States?

15 A We looked at them, yes.

16 Q And they're relevant and material to the
17 question whether PCBs cause cancer, aren't they?

18 A Yes.

19 Q You can't write them off just because they
20 were done by the Japanese?

21 A No, sir.

22 (End of reading)

23

24 MS. BAKER: Continuing at 89, line 12.

25

1 (Reading from video deposition)

2 Q Do you know enough about the history of PCBs
3 to know that -- that there was a very severe
4 issue or case of poisoning with people, with PCBs
5 in Yusho --

6 A Yes.

7 Q -- in 1968?

8 A I participated in that 1975 meeting in
9 Chicago when they presented their data.

10 Q Which data are you talking about?

11 A Their Yusho --

12 Q Yeah.

13 A -- incident.

14 (End of reading)

15

16 MS. BAKER: And continuing at Page 103
17 at line 2.

18

19 (Reading from video deposition)

20 Q I want you to tell me about the effects of a
21 high dose of PCBs on man.

22 A I don't know that I can. I don't know that
23 I have seen a case of a high-dose exposure to
24 PCBs in man.

25 Q Would you be able to describe what you have

1 determined from the literature is caused by high
2 dose of PCBs in man?

3 A The classic high dose would be the Yusho PCB
4 exposure.

5 (End of reading)

6
7 MS. BAKER: Continuing on Page 44, line
8 22.

9 MR. LACEY: 44?

10 MS. BAKER: Line 22.

11 MR. LACEY: Is it 44 or 144?

12 MS. BAKER: 144. I'm sorry.

13 MR. LACEY: What line?

14 MS. BAKER: Line 22.

15
16 (Reading from video deposition)

17 Q When was it that Dr. Wright's work was taken
18 out from under your supervision? Only at the
19 point he was indicted?

20 A Yes.

21 (End of reading)

22
23 MS. BAKER: Continuing at 145.

24
25 (Reading from video deposition)

1 Q From the time of his indictment forward, did
2 he perform any work for Monsanto?

3 A No, sir.

4 Q Did he remain on your payroll?

5 A He was on a leave of absence; so, he was
6 paid.

7 Q But on your payroll?

8 A I'm sure it was.

9 (End of reading)

10

11 MS. BAKER: And 146, line 15.

12

13 (Reading from video deposition)

14 Q Did you work with the lawyers retained by
15 Monsanto to represent Monsanto itself in the
16 investigations?

17 A No, sir.

18 Q Who did they coordinate with in your
19 department?

20 A They -- they didn't work with our department
21 at all. George Levinskys was a part of the
22 investigation. Whether that was IBT or whether
23 it was -- involved George, I haven't the
24 slightest -- or Paul. I don't have any
25 knowledge -- I wasn't told, and I wasn't -- I was

1 told not to get involved.

2 Q They tried to keep all of this from you?

3 A They told us not to get involved.

4 Q But Dr. Levinskas was involved?

5 A Only because he was -- because they had
6 asked for his --

7 Q They who?

8 A Whoever was doing the investigation in
9 Chicago.

10 Q The lawyers retained by Monsanto, or the
11 government?

12 A I -- I don't know.

13 Q I see. Were you aware of the fact that
14 Kirkland & Ellis in Chicago represented Monsanto
15 in connection with these investigations?

16 A I know that name was involved.

17 Q And are you aware of the fact that Wilmer
18 Cutler & Pickering in Washington, D.C., was
19 retained to represent by Dr. Wright and paid for
20 by Monsanto?

21 A I know that his was paid for, and I didn't
22 know it was paid for -- I might have heard it
23 sometime, but it didn't mean anything to me.

24 Q Did you know it was Wilmer, Cutler &
25 Pickering in Washington?

14 1 A No. I say I may have been told. And since
2 it didn't mean anything to me, I -- it wasn't
3 something I would -- I would recall.

4 Q Who was it that directed you not to get
5 involved in this investigation?

6 A Personnel.

7 Q Who?

8 A I don't recall -- I would -- my guess would
9 be, if I had to say, would be Bob Shirley.

10 Q Who is Bob Shirley?

11 A He is our personnel man that was within our
12 enviromental policy staff.

13 Q Didn't it seem important to you as the
14 medical director of Monsanto to know what was
15 going on and to get to the bottom of this
16 problem?

17 A I was told not to get involved.

18 (End of reading)

19

20 MS. BAKER: And on 149 at line 24.

21

22 (Reading from video deposition)

23 Q Did anybody from the medical department
24 monitor the trial that took place?

25 A We were not permitted to.

1 Q Who prohibited you from observing the trial
2 and learning the evidence with regard to
3 Monsanto's and IBT's conduct in these studies?

4 A It was out of -- I had no authority, since I
5 didn't pay for it. If I had been using that --
6 Monsanto -- out of my budget -- I might have had
7 some authority. But it was not in my province.
8 It was not in my authority or responsibility, and
9 I was told I wasn't to be involved in it.

10 Q Who told you that nobody from the medical
11 department could monitor the trial to see what
12 the problems were?

13 A Personnel.

14 Q Who?

15 A Bob Shirley.

16 Q So, nobody in Monsanto's medical department
17 was allowed to have firsthand information about
18 the evidence that came out in the IBT trial; is
19 that correct?

20 A Yes.

21 Q Were you ever permitted to review the
22 evidence that came out by reading transcripts or
23 anything like that after it took place?

24 A No, sir.

25 Q So, the only source of information you were

1 permitted to have about the evidence that came
2 out in that trial was what you could read in the
3 public press?

4 A Yes.

5 (End of reading)

6
7 MR. LACEY: Continuing at line 24 on
8 Page 151.

9
10 (Reading from video deposition)

11 Q Were you interested enough in the problem
12 and what impact it might have on the studies that
13 had been done by Monsanto at IBT to want to know
14 what the evidence was?

15 A I would like to have known.

16 Q Did you ever request permission to find out
17 what the evidence was?

18 A No, sir.

19 Q You just took your orders?

20 A Yes, sir.

21 Q Did Mr. Shirley or anybody else ever provide
22 you with a summary of what the evidence was so
23 you could evaluate the effect of the evidence
24 that came out, on the validity of the work done
25 by IBT for Monsanto?

1 A No, sir.

2 (End of reading)

3

4 MS. BAKER: And continuing now at Page
5 156, line 21.

6

7 (Reading from video deposition)

8 Q Do you know what Mr. Wright is doing since
9 he left Monsanto?

10 A He asked me for a letter of recommendation a
11 couple of weeks ago.

12 Q To whom?

13 A To whom it concerned.

14 Q I see.

15 A And he -- my impression that he is teaching,
16 and I'm not sure what he is teaching at one of
17 the city colleges in St. Louis.

18 Q Did you give him a letter of recommendation?

19 A Yes.

20 Q A good letter?

21 A Yes.

22 Q Did you mention in the letter anything about
23 his prior problems?

24 A No, I didn't mention that. I was talking
25 about his technical capability. That is what I

1 addressed.

2 Q I see.

3 A It was a very short letter, too, I might
4 add.

5 Q I understand.

6 A And it was approved by Monsanto.

7 Q Who approved it?

8 A I don't know.

9 Q Well, who did you send it to to get
10 approval?

11 A To personnel. It went to personnel.

12 Q Is that Mr. Shirley?

13 A No. Went through Mr. Pete Morrow.

14 Q Is that Mr. Shirley's replacement?

15 A He works for Mr. Shirley.

16 Q I see. Had you ever been asked for a letter
17 of recommendation by Mr. Wright until the last
18 couple of weeks?

19 A No, sir.

20 Q This is the first request?

21 A (Witness nods head.)

22 Q Did you talk to Mr. Wright or Dr. Wright?

23 A On the phone.

24 Q What did he tell you?

25 A He just said, "I'm looking for a job. I

1 need a letter of recommendation."

2 Q Did he mention how he happened to call you
3 for a letter of recommendation?

4 A No, sir.

5 Q When you talked to Dr. -- to Mr. Morrow,
6 was he surprised that Dr. Wright had called for a
7 letter of recommendation?

8 A He didn't appear to be.

9 Q Let me show you Document 58742, which is a
10 form that was filled out. I assume that this is
11 Mr. Shirley's signature at the bottom? I want
12 make sure that that, in fact, is Mr. Shirley's
13 signature?

14 A That is Mr. Shirley's signature.

15 Q This is the person who was responsible for
16 handling the personnel matters associated with
17 the medical department?

18 A Yes, sir.

19 Q Is the same Mr. Shirley who had indicated to
20 you that you should not attempt to find out what
21 was going on with the IBT matter?

22 A Either he or Pete Morrow was the one that
23 told me about it.

24 Q Is that Mr. Shirley's handwriting on the
25 form?

1 A Yes.

2 (End of reading)

3

4 MS. BAKER: And continuing with Page
5 168, line 7.

6

7 (Reading from video deposition)

8 Q You went to IBT and looked at slides of
9 those rat livers, didn't you?

10 A Yes, sir.

11 (End of reading)

12

13 MS. BAKER: And at 169, line 6.

14

15 (Reading from video deposition)

16 Q Now, what IBT initially suggested to
17 Monsanto they would say about those very same
18 livers was slight tumorigenesis?

19 A Yes.

20 Q Isn't that correct?

21 A Yes.

22 Q Which is a less strong statement than you
23 felt was warranted by looking at the livers
24 yourself, correct?

25 A Yes.

1 (End of reading)

2
3 MS. BAKER: And from there to 191,
4 please, line 22.

5 And at this point, I would like to
6 distribute another exhibit, Plaintiffs'
7 Exhibit No. 3129, which has already been
8 offered into evidence.

9 At line 22, on 191.

10
11 (Reading from video deposition)

12 Q Let me show you a letter dated April 18th,
13 1975 from Dr. Calandra to you, Document 22745
14 with the attachment 22746 through 22750 and ask
15 you if that is a letter that you, in fact,
16 received from Dr. Calandra?

17 A Yes.

18 Q It references the letter, a meeting that
19 took place on April 18, 1975; is that correct?

20 A Yes, sir.

21 Q Were you present at that meeting?

22 A Yes.

23 Q Where did that meeting take place?

24 A At IBT.

25 Q And what was the purpose of the meeting?

1 A To have them explain to me why he hadn't --
2 why he didn't find cancers and Kimbrough had
3 found them.

4 Q And that was a nagging question for you, was
5 it not?

6 A That was my nagging question. I wanted an
7 answer to that.

8 (End of reading)

9
10 MS. BAKER: And continuing at 193, line
11 4.

12

13 (Reading from video deposition)

14 Q And is that an accurate representation of
15 what was discussed at the meeting?

16 A I can't remember all of the things that
17 were -- here was a part of that discussion, but
18 it would be pertinent for that to be because one
19 of the first things is it related to the
20 Kimbrough study.

21 Q He also references in his letter a
22 willingness to be of help in any way that
23 Monsanto wishes. Do you see is that in the
24 second paragraph?

25 A Yes, sir.

1 Q And you did further call on IBT to help you
2 try and clear up that problem, did you not?

3 A Yes.

4 (End of reading)

5

6 MS. BAKER: And continuing at 195, line

7 4.

8

9 (Reading from video deposition)

10 Q In the last sentence, in the second
11 paragraph on Page 22746, he says, "It should be
12 noted that the earlier allegations by Kimbrough
13 that bladder cancers developed in female rats fed
14 PCBs was successfully countered by Biotest and
15 Monsanto personnel?

16 A Yes.

17 Q Do you know what he is referring to there?

18 A No, I don't.

19 Q You don't know anything about how Biotest
20 and Monsanto personnel successfully counteracted
21 Kimbrough?

22 A I don't know what he means by "successfully
23 counteracted," either.

24 (End of reading)

25

MS. BAKER: And at 197 -- 196, line 1

(Reading from video deposition)

Q Okay. In the next paragraph, he talks about Kamura. Kamura is one Japanese scientists, is he not?

A Yes.

Q He did studies on a PCB product, correct?

A Yes.

Q Using rats?

A Yes.

Q And found that there were certain benign neoplastic changes, correct?

A Yes.

Q And Dr. Calandra points out that Kamura expressed concern that the benign nodules in the liver may progress to carcinoma if specific or non-specific stimuli are introduced into the animal.

Was that something that you discussed with Dr. Calandra on that visit, the Japanese study by Kamura?

A I don't recall, but it could well be because that was a subject of whether it was carcinogenic.

1 (End of reading)

2
3 MS. BAKER: And continuing on Page 197
4 at line 8.

5
6 (Reading from video deposition)

7 Q On the next page, there is a reference to
8 Itow?

9 A Yes.

10 Q Correct?

11 A Yes.

12 Q Mr. Itow is another Japanese cancer
13 researcher, is he not?

14 A Yes.

15 Q Mr. Itow is one of the foremost cancer
16 researchers in the world, is he not?

17 A I think he's a cancer specialist and whether
18 he is -- I don't know how to answer the question.
19 He is well recognized.

20 (End of reading)

21
22 MS. BAKER: On line 7 on 199.

23
24 (Reading from video deposition)

25 Q Dr. Itow found that PCBs did cause

1 hepatocellular carcinomas. And that's liver
2 cancer, is it not?

3 A Yes.

4 (End of reading)

5

6 MS. BAKER: Continuing to Page 203 at
7 line 9.

8

9 (Reading from video deposition)

10 Q And he finally indicates that "Biotest is
11 prepared to assist Monsanto in any adversary
12 situation, in or out of government."

13 Do you know what he means by that?

14 A I didn't ask him what he meant by it.

15 Q Did you ever -- that concludes our review of
16 this.

17 Did you ever ask Dr. Calandra or Biotest to
18 assist Monsanto in any adversary situation in or
19 out of government?

20 A We did go to the government after that.

21 Q And took Dr. Calandra with you?

22 A Yes, because he knew his data and we did
23 not. He had to speak for his own data.

24 Q And the purpose of that visit to the
25 government was to present the views that PCBs

1 don't cause cancer?

2 A No. We took the Poor Report and gave that
3 to each one of the agencies that we visited, only
4 to again talk about that -- getting involved in
5 that discussion of what is a cancer -- a
6 cancerous lesion and how do you define them.

7 Q The visit that was made to the government is
8 the one that is referred to in the memo that Mr.
9 Papageorge wrote to Dr. Calandra, you, and Mr.
10 Weber on November 10th -- I'm sorry -- November
11 10th, 1975, Document 1487, 1488, Plaintiffs'
12 Exhibit 1516, is it not?

13 A It wasn't written by -- oh -- it was from
14 Papageorge? Yes.

15 Q That is the visit where you took Dr.
16 Calandra to present the positions of the
17 noncarcinogenicity of PCBs?

18 A As well as to present them with the Poor
19 Paper.

20 Q Yes. Let me ask you a little bit about that
21 visit.

22 Did you advise the government of the Itow
23 study concluding that PCBs caused cancer?

24 A Well, they already had -- that's published.

25 Q That's not my question.

1 A No, we did not.

2 Q You did not call that study to anyone's
3 attention in that visit, did you?

4 A No, sir.

5 (End of reading)

6

7 MS. BAKER: And continuing on Page 205,
8 at line 12.

9

10 (Reading from video deposition)

11 Q On this visit, what agencies did you go see?

12 A Went to NIOSH, and went to CEQ.

13 Q That's the Council for Environmental
14 Quality?

15 A Yes, and NCI.

16 Q National Cancer Insitute?

17 A And apparently NIEHS was there -- came there
18 as well. And then we visited the EPA and the
19 FDA.

20 Q And wasn't there a visit to a Congressional
21 group as well?

22 A I don't think so.

23 Q Okay. Did you advise any of these people
24 that Itow's study in mice found, "hyperplastic
25 nodules and well-differentiated hepatocellular

1 carcinomas," at a dose level of 500 parts per
2 million of Kanechlor 500?

3 A No, sir.

4 (End of reading)

5
6 MS. BAKER: And continuing with line

7 14.

8
9 (Reading from video deposition)

10 Q Well, let me ask you this, then: At that
11 meeting, did you advise anybody, any of those
12 groups that Dr. Gordon or Dr. Richter had
13 reviewed the Kimbrough slides and found or agreed
14 with the findings of cancer?

15 A No, sir.

16 Q The only reports that you made to any of
17 those groups were that the IBT study did not show
18 cancer and that Dr. Poor concluded that the
19 Kimbrough study did not show cancer?

20 A That's right. And Kimbrough was there when
21 we did that. We gave it to Kimbrough, as well.

22 Q I understand. But the only -- only
23 information you gave to any of these groups was
24 that -- really that Dr. Poor had reviewed the IBT
25 studies and said "no cancer," and Dr. Poor had

1 reviewed the Kimbrough studies --

2 A Yes.

3 Q -- and said "no cancer." Nothing else?

4 A That's right.

5 (End of reading)

6

7 MS. BAKER: Continuing at page 208,

8 line 5.

9

10 (Reading from video deposition)

11 Q Let me show you a memo dated September 17th

12 1975, written by you to the corporate

13 administrative committee, Document 19722,

14 Plaintiffs' Exhibit 710.

15 (End of reading)

16

17 MS. BAKER: Your Honor, this has been
18 introduced into evidence and I would like to
19 pass to the jury a copy

20

21 (Reading from video deposition)

22 A Yes, sir.

23 Q Do you recall writing that memo?

24 A Yes, sir. I signed it.

25 Q One of the things that was of concern --

1 (End of reading)

2

3

MS. BAKER: At line 22. To the.

4

5

(Reading from video deposition)

6

Q -- to the corporate administrative committee

7

in 1975 was what potential government action was

8

taking place with regard to PCBs, was it not?

9

A Yes.

10

Q In fact, this whole monthly report dealt

11

with nothing but the PCB issue, correct?

12

A The second paragraph deals with

13

epidemiologic study, and it was broader than just

14

PCBs.

15

Q It was inspired by questions about whether

16

or not PCBs were causing cancer among workers,

17

wasn't it?

18

A The interest of the government was not

19

related to cancer. It was the presence of PCBs

20

in the environment.

21

(End of reading)

22

23

MS. BAKER: All right. Continuing at

24

210, line 12.

25

1 (Reading from video deposition)

2 Q The first sentence of this letter you say
3 that "State and federal agencies activities
4 related to PCBs continue to require medical
5 department attention to support business group
6 efforts."

7 What did you mean when you said "business
8 group efforts"?

9 A PCBs were an important issue to Monsanto in
10 general.

11 Q What was the business group effort?

12 A I -- I can't answer that. It's a generic
13 business group because I -- I never knew who was
14 involved at this time or how I should talk about
15 what the business group effort means.

16 (End of reading)

17

18 MS. BAKER: Continuing at Page 212,
19 line 8.

20

21 (Reading from video deposition)

22 Q Had you already formed the impression by
23 September 17th, 1975, that Monsanto needed to get
24 out of the PCB business?

25 A I'm not sure I went that far. That really

1 wasn't my decision kind of thing. And I had no
2 contact with business people making such
3 decisions.

4 (End of reading)

6 MR. LACEY: At 213, line 5.

8 (Reading from video deposition)

9 Q At the time you wrote this memo, Monsanto
10 had never conducted a single epidemiological
11 study of workers at any of its plants, had it?

12 A I'm sure that's right.

13 (End of reading)

15 MS. BAKER: And continuing on Page 214
16 at line 4.

18 (Reading from video deposition)

19 Q And it would be very difficult to represent
20 to anyone else that you had had no health
21 problems caused by any particular chemical your
22 people were exposed to without having done
23 epidemiological studies, wouldn't it?

24 A We can use our medical data under our
25 surveillance examinations, but it won't take the

1 place of an epidemiologic study, that's right.

2 Q The first time you conducted an
3 epidemiological study with regard to PCBs was
4 after you had learned that the Mobile study
5 suggesting a relationship between exposure to
6 PCBs and melanoma; isn't that correct?

7 A Yes, sir.

8 Q And what you found in that study was a
9 relationship suggested between PCBs and lung
10 cancer, wasn't it?

11 A No, it doesn't -- all it says there is a
12 possible association. It doesn't say there is.

13 Q I see. One of the problems with
14 epidemiology is that it's almost impossible to
15 get clear-cut conclusions, isn't it?

16 A Not if you have -- if you represent a study
17 in a number of different locations and they all
18 come up with the same finding, then you have got
19 a cause-and-effect relationship. But if it is
20 not repeated in another location and if the
21 evidence isn't clear-cut, then you have a
22 problem.

23 Q Would you read the last sentence of your
24 memo into the record, please.

25 A "We will have to do much more epidemiology

18
1 in the future, although clear-cut conclusions are
2 almost impossible."

3 (End of reading)
4

5 MS. BAKER: Continuing at Page 219,
6 line 16.
7

8 (Reading from video deposition)

9 Q There was a press release that was proposed
10 to be released in connection with the Chicago
11 meeting on PCBs in 1975, was there not?

12 A You mean the big study? You mean that --
13 that week-long thing on PCBs?

14 Q I believe that's correct, yes.

15 A I'm not sure it was. But public relations
16 decided they wanted to put out a press release
17 as -- as was possible. I don't remember.

18 Q Well, I -- wasn't there a proposed press
19 release with regard to Dr. Poor's work?

20 A That was different.

21 Q It was different?

22 A The public relations wanted to get something
23 out on the Poor Report, and Poor did not want it
24 to be part of the Chicago -- I don't know what to
25 call that -- the conference on PCBs.

1 Q Why was he interested in distancing himself
2 from that conference?

3 A He didn't want to get involved in
4 controversial discussions. He is quite -- he was
5 quite satisfied to have us take it to the
6 government agencies but didn't want to get
7 involved in a -- any controversy.

8 Q He wasn't interested in having his work
9 published so that other scientists in the general
10 domain could look at it, comment on it, criticize
11 it, and review it? Is that the bottom line?

12 A No. I don't -- I don't think that's the
13 same. He just didn't want to be involved in a
14 controversial discussion in a congress or a
15 seminar on PCBs.

16 Q Well, the people at the seminar were
17 scientific type people, were they not?

18 A Yes.

19 (End of reading).

20

21 MS. BAKER: And on Page 221 at line 25
22 and continuing at 222.

23

24 (Reading from video deposition)

25 Q Putting out an opinion like Dr. Poor's

1 opinion at that Chicago symposium would have been
2 the equivalent of putting it out in a peer review
3 journal, wouldn't it? It would have put it out
4 for review and comment and criticism by other
5 scientists, correct?

6 A It would be one form of doing it, but it
7 isn't exactly the same as publishing it
8 someplace.

9 Q Did he ever publish his study in a peer
10 review journal?

11 A I don't know. I don't think so.

12 Q And he was unwilling to put it out for
13 public comment to other scientists at the Chicago
14 symposium; is that correct?

15 A He didn't want to get -- he didn't want to
16 do that.

17 Q Didn't authorize you to do that?

18 A That's right.

19 Q And you didn't do it, did you?

20 A No, sir.

21 (End of reading)

22
23 MS. BAKER: And to 223, line 9.

24
25 (Reading from video deposition)

1 Q Did Monsanto ever engage in PCB studies in
2 higher animals than rats and dogs and chickens?

3 A Yes.

4 Q What animals were used?

5 A We used monkeys on a reproductive study.

6 Q What was the purpose of using higher
7 animals?

8 A Well, the general concept that you have
9 problems in relevance of an animal study to
10 man -- especially if you use a rat. That's
11 hardly a good surrogate for man. We use monkeys
12 or use rats because we know them quite well and
13 because we can do more animals. But if it were
14 possible, we would do all of our toxicology in
15 monkeys; and so, Dr. Allen had done a study of
16 monkeys. And we wanted to learn firsthand what
17 reproductive hazard -- problems -- are in
18 monkeys.

19 Q Dr. Allen's study showed that higher
20 primates, like monkeys, were more susceptible to
21 problems from PCBs than were animals like rats,
22 did they not?

23 A Yes.

24 Q So that one would expect toxic effects to be
25 greater in more highly developed primates than in

1 rats, correct?

2 A Yes -- well, "greater" is not -- what was
3 learned is that at low concentrations, we saw an
4 effect, rather than necessarily that there was
5 more.

6 Q Well, what was learned in Dr. Allen's study
7 were that at concentrations that did not produce
8 substantial toxic effects in rats there were
9 substantial toxic effects --

10 A That's right.

11 Q -- in primates?

12 A That's right.

13 Q And of course, Dr. Allen's work could
14 therefore be interpreted to mean that any PCB
15 exposure would result in the same response in
16 humans, correct?

17 A It would be more likely to be correct.

18 Q Did you undertake studies in primates,
19 yourself?

20 A Yes.

21 Q Who did those studies?

22 A Litton Bionetics. L-i-t-t-o-n.
23 B-i-o-n-e-t-i-c-s.

24 Q And what was the conclusion?

25 A That, in fact, there were effects on

monkeys. And it was about as he suggested, but his dose level was off by about 20, 20-fold. In other words, we didn't see the same effect until we got to about 25 parts per million as opposed to what he had found.

Q But your own --

A Substantially the same finding.

Q Your own studies in primates confirmed that higher animals like monkeys were more acceptable to PCB effects at lower doses than rats?

A I think that's correct.

Q And would those studies --

A The only difference was that the dose level wasn't as low as he said it was and problem is that it's hard to do it at that low a concentration.

Q And the reasonable conclusion of your primate studies is that you would anticipate humans would also be more susceptible to PCB-induced problems at lower doses than rodents, correct?

A That is a reasonable interpretation of that, yes.

Q Do you know of any reason to reject that interpretation?

1 A Well, the only problem you have got is being
2 as sure of the dose and the fact that there are
3 so few animals involved. And this -- that makes
4 it difficult. So, it's not as reliable as it
5 would be if we had done 50 rats.

6 Q Well, Monsanto set up the protocol for that
7 monkey experiment --

8 A Yes, it did.

9 Q -- did it not?

10 A Yes, it did.

11 Q You decided how many monkeys to use.

12 A That's right.

13 Q And you used enough to feel that you were
14 going to get a meaningful result?

15 A Yes.

16 Q And the meaningful result confirmed the
17 result of Dr. Allen?

18 A Yes.

19 Q Suggesting that higher primates, like
20 monkeys, were more acceptable than lower animals
21 like rats?

22 A Yes.

23 Q And leading to the reasonable conclusion
24 that man, therefore, would be more susceptible to
25 problems with PCBs at lower doses than rats,

1 correct?

2 A Yes.

3 (End of reading)

4

5 MS. BAKER: And continuing at Page 248,
6 line 17.

7

8 (Reading from video deposition)

9 Q I first want to direct your attention to the
10 Exhibit 21 to Dr. Levinskass' deposition, a
11 letter dated July 18th, 1975, from Dr. Levinskass
12 to Dr. Calandra. In that letter Dr. Levinskass
13 requested that the Aroclor 1254 report be amended
14 to say "does not appear to be carcinogenic"; is
15 that correct?

16 A Yes.

17 Q Their report had previously stated that the
18 Aroclor 1254 was slightly tumorigenic.

19 A Yes, sir.

20 Q Is there any question in your mind but that
21 IBT made the change requested by Dr. Levinskass?

22 A Is there any question that they did? Is
23 that --

24 Q Is there any question in your mind but that
25 IBT made the change requested by Dr. Levinskass?

1 A My impression that they did, yes.

2 Q Okay. And that change consisted of taking
3 out the language "slightly tumerogenic" and
4 replacing it with the language "does not appear
5 to be carcinogenic."

6 A Yes, sir.

7 Q Now, in that regard, a product that is
8 tumerogenic is on that continuum of products from
9 a product that has no effect to a product that
10 causes cancer.

11 A Yes, sir.

12 Q Isn't that correct -- and it would be
13 significant then to note or to know whether a
14 product created tumors, wouldn't it?

15 A Yes.

16 (End of reading)

17

18 MS. BAKER: Continuing at 259, line 4.

19

20 (Reading from video deposition)

21 Q What representations did you make to all the
22 governmental agencies when you went to them in
23 November of 1975? That IBT studies had shown
24 that they were noncarcinogenic; isn't that
25 correct?

1 A Plus the Poor Interpretation, something on
2 the same subject.

3 Q And when Monsanto went to the Senate, who
4 was investigating the issues of PCBs for whatever
5 reason, it reported that the IBT studies had
6 found PCBs to be noncarcinogenic, didn't it?

7 A Yes.

8 Q It wouldn't be nearly so pleasant to have to
9 report that the IBT study had concluded that PCBs
10 were tumerogenic, would it?

11 A I don't think so. I don't think there's
12 much difference between the two.

13 Q You can't see much difference --

14 A No.

15 Q -- between the two? If there wasn't much
16 difference between the two, why in the world did
17 Dr. Levinskas bother to have it changed then?

18 A To be -- to try and get them to say what
19 they had said. /

20 Q Well, if the two mean the same thing, then
21 it really doesn't matter if you say one way or
22 the other, does it?

23 A It's more important to say something is not
24 carcinogenic than to say that it is tumerogenic.

25 (End of reading)

MS. BAKER: And continuing at Page 277,
line 12.

(Reading from video deposition)

Q Did you ever ask anyone to undertake a study
to determine whether furans were to be found in
Monsanto's PCBs?

A No, sir.

Q Do you know whether any such study has ever
been conducted?

A No, sir.

(End of reading)

MS. BAKER: And continuing at Page 278,
line 1.

(Reading from video deposition)

Q Well, certainly in trying to assess what the
toxicology of PCBs are, it would make a
difference if you knew that those PCBs had in
them furans produced as a byproduct, would it
not?

A It might. That's something you shouldn't --
it would -- you should -- it would be nice to

1 know. But we do it after we got it. It would be
2 something else.

3 Q You recognize, do you not, that furans may
4 be even more toxic than PCBs?

5 A Yes.

6 Q And so, the presence of furans in PCBs
7 produced by Monsanto would be likely to increase
8 the toxic effect of exposure to these PCBs.

9 A If they were present in sufficient quantity.

10 Q Okay. What is a sufficient quantity, in
11 your opinion?

12 A I don't know.

13 Q You have never studied --

14 A I haven't studied it.

15 Q I see. Have you had somebody on your staff
16 study that?

17 A No, sir.

18 Q Do you have any information on that?

19 A No, sir.

20 Q So, trying to assess at what level furan
21 contamination in PCBs would be significant, you
22 don't have any information on that?

23 A That's right.

24 Q And is that why you say you don't know what
25 you would do with it if you found out there were

1 furans in the PCBs?

2 A I don't know what would -- should be done if
3 we knew it. It's a --

4 Q Would you give some thought to a program you
5 might now undertake if you discovered that to be
6 the fact, even though you no longer manufacture
7 PCBs?

8 A That would take a great deal of thought.

9 Q But you have never taken the time to give it
10 that thought, correct?

11 A I haven't done that.

12 Q And the reason you haven't is because you
13 have no information to suggest that Monsanto's
14 PCBs had furans in them, correct?

15 A I don't know that.

16 Q You just don't know one way or the other?

17 A That's right.

18 Q Did you ever inquire about that of anybody?

19 A No.

20 Q Do you know if anybody in your department
21 ever inquired of anyone concerning whether
22 Monsanto's PCBs had furans in them?

23 A No, sir.

24 (End of reading)

25