

1 STATE OF WEST VIRGINIA

2 IN THE CIRCUIT COURT FOR THE COUNTY OF HARRISON

3
4 LENORA PERRINE, CAROLYN HOLBERT,

5 WAUNONA MESSINGER CROUSER,

6 REBECCA MORLOCK, ANTHONY BEEZEL,

7 MARY MONTGOMERY, MARY LUZADER,

8 TRUMAN R. DESIST, LARRY BEEZEL,

9 and JOSEPH BRADSHAW, individuals

10 residing in West Virginia, on

11 behalf of themselves and all

12 others similarly situated,

13 Plaintiffs,

14 vs.

Case No. 04-C-296-2

15 E.I. DU PONT NEMOURS AND COMPANY,

16 a Delaware Corporation doing

17 business in West Virginia,

18 MEADOWBROOK CORPORATION, a

19 dissolved West Virginia

20 corporation, MATTHIESSEN & HEGELER

21 ZINC COMPANY, INC., a dissolved

22 Illinois corporation formerly

23 doing business in West Virginia,

24 NUZUM TRUCKING COMPANY, a West

25 Virginia corporation, T.L.

1 DIAMOND & COMPANY, INC., a
2 New York corporation doing
3 business in West Virginia,
4 and JOE PAUSHEL, an individual
5 residing in West Virginia,
6 Defendants.

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10 The Telephonic Videotaped Deposition of
11 DAVID GARABRANT, M.D.,
12 Taken at 2900 South State Street,
13 Ann Arbor, Michigan,
14 Commencing at 3:06 p.m.,
15 Thursday, June 7, 2007,
16 Before Leisa M. Pastor, CSR-3500, RPR, CRR.

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1 APPEARANCES:

2
3 AMANDA SLEVINSKI (via telephone)

4 Levin, Papantonio, Thomas, Mitchell, Echsner & Proctor, P.A.

5 316 South Baylen Street, Suite 600

6 Pensacola, Florida 32502

7 (850) 435-7000

8 Appearing on behalf of Plaintiffs.

9
10 CLAYTON PATTERSON (via telephone)

11 Law Office of Gary W. Rich, L.C.

12 Brock, Reed & Wade Building

13 212 High Street, Suite 223

14 Morgantown, WV 26505

15 (304) 292-1215

16 Appearing on behalf of Plaintiffs.

17
18 TIMOTHY S. DANNINGER

19 Squire, Sanders & Dempsey, L.L.P.

20 Two Renaissance Square, Suite 2700

21 40 North Central Avenue

22 Phoenix, Arizona 85004-4498

23 (602) 528-4000

24 Appearing on behalf of Defendant DuPont.

25

1 WILLIAM SCOTT WICKLINE

2 Allen, Guthrie, McHugh & Thomas, P.L.L.C.

3 500 Lee Street East, Suite 800

4 Charleston, West Virginia 25301

5 (304) 720-4234

6 Appearing on behalf of Defendant DuPont.

7
8 ALSO PRESENT:

9 Jennifer Duckworth - Video Technician

1 Ann Arbor, Michigan

2 Thursday, June 7, 2007

3 3:06 p.m.

4
5 VIDEO TECHNICIAN: We are now on the
6 record. This is the videotaped deposition of
7 Dr. David Garabrant being taken on Thursday, June 7th,
8 in 2007. The time is now 3:06 and 17 seconds p.m. We
9 are located at 2900 South State Street in Ann Arbor,
10 Michigan. This deposition is being taken in the
11 matter of Lenora Perrine, et al., versus E.I. DuPont
12 Nemours and Company, et al. This is case No.
13 04-C-296-2. This matter is being held in the circuit
14 court for Harrison County, West Virginia.

15 My name is Jennifer Duckworth, the video
16 technician. Will the court reporter please swear in
17 the witness and the attorneys briefly identify
18 themselves for the record, please?

19 DAVID GARABRANT, M.D.,
20 was thereupon called as a witness herein, and after
21 having first been duly sworn to testify to the truth,
22 the whole truth and nothing but the truth, was
23 examined and testified as follows:

24 MS. SLEVINSKI: This is Amanda Slevinski on
25 behalf of the plaintiffs.

1 MR. DANNINGER: Anybody else on the phone
2 for plaintiff?

3 MS. SLEVINSKI: Clayton?

4 MR. PATTERSON: This is Clayton Patterson
5 on behalf of the Law Office of Gary Rich.

6 MR. DANNINGER: Tim Danninger on behalf of
7 DuPont.

8 MR. WICKLINE: Scott Wickline also on
9 behalf of DuPont.

10 VIDEO TECHNICIAN: You can go ahead.

11 MS. SLEVINSKI: Before we get started,
12 madam court reporter, can I ask that when I identify
13 an exhibit will you, you know, take it out and hand it
14 to the witness?

15 COURT REPORTER: Yes.

16 MS. SLEVINSKI: And there will be an extra
17 copy in there for defense counsel. Can y'all hear me
18 okay? It's kind of faint on my end.

19 MR. DANNINGER: It's very faint on our end,
20 as well, and we will be sure to let you know that
21 if -- when we can't hear you.

22 MS. SLEVINSKI: Okay, great thanks, I'll do
23 the same.

24 EXAMINATION

25 BY MS. SLEVINSKI:

1 Q. All right. Good afternoon, Dr. Garabrant. My name's
2 Amanda Slevinski. Would you go ahead and state your
3 name for the record, please?

4 A. Yes, David Hay Garabrant.

5 Q. Okay, what is your current address, Dr. Garabrant?

6 A. 1420 Washington Heights, Ann Arbor, Michigan, 48109.

7 Q. Have you ever been deposed before?

8 A. Yes.

9 Q. So you probably know all the ground rules, but I'll
10 just say a couple of them real quick. You know you're
11 under oath, this testimony is under oath. If you
12 answer a question, I assume that you understood my
13 question, so if you don't understand something that
14 I'm asking, please just let me know so I can try and
15 rephrase it.

16 Let's go ahead and take a look at your
17 notice. Could you hand the witness Exhibit No. 150,
18 please? Go ahead and mark that.

19 MARKED BY THE REPORTER:

20 DEPOSITION EXHIBIT NUMBER 150

21 3:10 p.m.

22 COURT REPORTER: No. 150, I'm handing a
23 copy to defense counsel.

24 MS. SLEVINSKI: Thank you.

25 BY MS. SLEVINSKI:

1 Q. This is a copy of the notice to your depo,
2 Dr. Garabrant. You were provided a copy of this by
3 your lawyers?

4 A. Yes.

5 Q. Did you review the list of materials that were
6 requested?

7 A. Yes.

8 Q. Did you bring a copy of any of these materials to the
9 deposition?

10 A. Yes.

11 Q. You did? What did you bring?

12 A. I brought my curriculum vitae. I brought all my
13 documents relating to this Spelter smelter facility.
14 I brought all documents I consulted or relied upon in
15 preparing my report. I brought all documents I relied
16 upon in preparing for my deposition. I brought all
17 items that have been furnished to me for review or
18 that I obtained independently in formulating my
19 opinions in this case. I brought a copy of some of
20 the book chapters I've authored or edited, although, I
21 don't think any of them address issues in this case.
22 I do not have any depositions in other cases, so I
23 didn't bring them, and I brought a list of my previous
24 testimony.

25 Q. And you just don't have copies of the deposition

1 transcripts in the other cases; is that what you're
2 saying?

3 A. Yes.

4 Q. Hello?

5 A. Yes.

6 Q. I'm sorry, did you -- I -- did you say you just -- you
7 didn't bring copies of the depositions of your prior
8 testimonies?

9 A. No, I said I don't have them.

10 Q. Okay. I'm sorry to interrupt; I couldn't hear for a
11 second.

12 Are there any materials that you brought
13 with you today that you haven't previously produced?

14 A. I don't believe so.

15 Q. Nothing here today?

16 A. I'm sorry, I didn't understand; you were cut off.

17 Q. Oh, I'm sorry. I just asked no new materials that
18 haven't been previously provided today?

19 A. Actually, yeah, there's one new material, the IARC
20 Monograph 87 which was just published within the past
21 few weeks.

22 Q. Could you go ahead and give that to the court
23 reporter, and can we have that marked, please, as an
24 exhibit?

25 MR. DANNINGER: Amanda, it's actually his

1 own personal book.

2 MS. SLEVINSKI: Oh.

3 MR. DANNINGER: We can give you the ISBN
4 number, and you can obtain a copy.

5 MS. SLEVINSKI: Okay, that would be good.

6 MR. DANNINGER: Is there an ISBN number on
7 that, Doctor, on the back of -- inside?

8 THE WITNESS: Yes, the ISBN 92-832-1287-8.

9 BY MS. SLEVINSKI:

10 Q. And this is the new IARC book; is there anything in
11 this -- the new one that you brought that you relied
12 upon in your report?

13 A. Well, I wrote my report before I received the new
14 book. My report was based on the portion of the book
15 that was available from the IARC web site earlier this
16 year, but since writing my report, I have received the
17 entire book.

18 Q. Is there anything in there that changes your opinion?

19 A. No.

20 Q. All right, Dr. Garabrant, what's your current
21 occupation?

22 A. I am professor of occupational medicine and
23 epidemiology at the University of Michigan.

24 Q. So you're employed by the University of Michigan?

25 A. Yes.

1 MS. SLEVINSKI: Madam court reporter, would
2 you please get Exhibit 152, mark that, and hand a copy
3 to Dr. Garabrant and to defense counsel?

4 MARKED BY THE REPORTER:

5 DEPOSITION EXHIBIT NUMBER 152

6 3:14 p.m.

7 COURT REPORTER: All right, I've handed
8 them each copies.

9 MS. SLEVINSKI: Thank you.

10 BY MS. SLEVINSKI:

11 Q. Dr. Garabrant, do you recognize this as your current
12 curriculum vitae?

13 A. This is my curriculum vitae from April of 2007, so
14 it's pretty current.

15 Q. Okay, so it's your most current and up to date?

16 A. Well, I think I've got -- I think I made a change last
17 week. Another one of my papers was accepted for
18 publication.

19 Q. Okay, so what would that be?

20 A. That would be -- that would be No. 98 on page 16.

21 Q. Okay. No. 98 on page 16 is now accepted for
22 publication?

23 A. Yes.

24 Q. Which journal?

25 A. The International Journal of GI Cancer.

1 Q. Are there any other changes? Do you have anything
2 else that needs to be added to --

3 A. No, I think that's it.

4 Q. What's your training and your experience in the field
5 of epidemiology?

6 A. I took graduate courses in epidemiology at the Harvard
7 School of Public Health when I was a student there and
8 as a resident in occupational medicine. I then joined
9 the faculty at the University of Southern California
10 School Of Medicine in 1981 and began doing
11 occupational and cancer epidemiology research.

12 I have done epidemiology research now for
13 over 26 or 27 years. I teach epidemiologic methods in
14 occupational and environmental epidemiology, and I
15 have published, I don't know, a hundred to 150
16 different papers in the field of epidemiology.

17 Q. Can I interrupt this real quick and ask one more
18 question about your -- the article that was just
19 selected for publication? Can we clarify just does it
20 have anything to do with arsenic, cadmium, or lead?

21 A. No.

22 Q. Back to your educational and training background, do
23 you have a degree in epidemiology?

24 A. No.

25 Q. Are you a member of the American College of

1 Epidemiology?

2 A. I'm a member of the Society For Epidemiologic Research
3 and the International Epidemiological Association.

4 Q. Not the American College of Epidemiology?

5 A. I believe that's correct.

6 Q. As far as the Society For Epidemiologic Research, when
7 did you become a member?

8 VIDEO TECHNICIAN: Excuse me, is there a
9 microphone on the phone? There isn't?

10 COURT REPORTER: That's mine.

11 A. I think I joined that in 1988.

12 MR. DANNINGER: Okay, Amanda, hang on
13 one -- one second. Do you want to go off the record
14 so we can get a mike on the phone?

15 VIDEO TECHNICIAN: Sure.

16 MR. DANNINGER: We're -- the videographer's
17 having a real hard time hearing you.

18 MS. SLEVINSKI: Okay.

19 MR. DANNINGER: So we're just going to go
20 off the record real quick while she gets a mike on the
21 phone, and then we'll come on.

22 MS. SLEVINSKI: Not a problem, okay.

23 VIDEO TECHNICIAN: We're going off the
24 record. The time is 3:18 and 20 seconds p.m.

25 (Discussion off the record at 3:18 p.m.)

1 (Back on the record at 3:19 p.m.)

2 VIDEO TECHNICIAN: We are now back on the
3 record. The time is 3:19 and 55 seconds p.m.

4 BY MS. SLEVINSKI:

5 Q. Dr. Garabrant, you don't hold yourself out as an
6 expert in oncology, do you?

7 A. No. I -- I am a cancer epidemiologist.

8 Q. Can you explain what a cancer epidemiologist is?

9 A. Yes, I do epidemiology studies related to cancer and
10 factors that cause cancer.

11 Q. You don't have any specialized training in oncology?

12 A. I'm a board certified internist, and I have training
13 in oncology as an internist. Medical oncology is a
14 subspecialty of internal medicine.

15 Q. You're not board certified in oncology?

16 A. I am not, I'm board certified in internal medicine.

17 Q. You do not practice oncology; you do not practice the
18 oncology?

19 A. That is correct.

20 Q. Are you an expert in nephrology?

21 A. Nephrology is a subspecialty of internal medicine.
22 I'm board certified in internal medicine. I do not
23 have subspecialty certification in nephrology.

24 Q. You're not a practicing nephrologist?

25 A. That's correct.

1 Q. Do you consider yourself an expert in the health
2 effects of lead?

3 MR. DANNINGER: I'm sorry, can -- I didn't
4 hear that, Amanda; can you repeat that?

5 BY MS. SLEVINSKI:

6 Q. Okay. Do you consider yourself an expert on the
7 health effects of lead?

8 MR. DANNINGER: Thank you.

9 A. Yes.

10 BY MS. SLEVINSKI:

11 Q. What about arsenic?

12 A. Yes.

13 Q. Cadmium?

14 A. Yes.

15 Q. Your board certification in internal medicine, that
16 was in 1981?

17 A. I believe that's correct.

18 Q. And occupational medicine board certification in '82?

19 A. I believe that's correct.

20 Q. You're aware that this litigation is involving
21 occupational exposures, correct?

22 A. I'm sorry, your voice was garbled, I'm aware that this
23 litigation what?

24 Q. I'm sorry. I asked that whether you're aware that
25 this litigation does not, in fact, involve

1 occupational exposures?

2 A. It's my understanding that this involves environmental
3 exposures, and my board certification is in
4 occupational and environmental medicine.

5 Q. I don't think I saw a -- you were board certified on
6 your C.V. -- environmental medicine, excuse me.

7 MR. DANNINGER: Object to form, there's no
8 question there.

9 BY MS. SLEVINSKI:

10 Q. Where on your C.V. is -- can you point out to me where
11 you're board certified in environmental medicine?

12 A. My C.V. lists occupational medicine. The board
13 specialty in occupational medicine now also covers
14 environmental issues.

15 Q. But you're not separately board certified in
16 environmental medicine?

17 A. I don't believe there is a separate board
18 certification in environmental medicine.

19 Q. Were you aware of the American Board of Environmental
20 Medicine?

21 A. That, I believe, is not a -- an approved specialty by
22 the American Conference Of Graduate Medical Education.

23 Q. Your C.V., it lists five different states in which
24 you're licensed to practice medicine; is that correct?

25 A. Yes.

1 Q. And are all these licenses still current?

2 A. They're all still current. Only the Michigan license
3 is active. The other four are inactive.

4 Q. Why do you -- what required of you in order for a
5 license to stay current?

6 A. Well, I hold current licenses, I am licensed in those
7 states.

8 Q. Is there any sort of, like, CMEs that you have to go
9 through to keep the current licenses?

10 MR. DANNINGER: Object to form.

11 A. I'm not sure I understand.

12 BY MS. SLEVINSKI:

13 Q. All right, do you know what I mean by CME?

14 A. I assume you're talking about continuing medical
15 education?

16 Q. Yes, sir.

17 A. Different states have different requirements.

18 Q. Are you actively involved in practicing medicine?

19 A. Yes.

20 Q. Which states?

21 A. Michigan.

22 Q. Do you treat patients?

23 A. Yes.

24 Q. How often -- what's your treatment -- treating
25 practice?

1 MR. DANNINGER: Object to form.

2 BY MS. SLEVINSKI:

3 Q. How often do you see patients in clinical practice?

4 A. I have clinic on Mondays. I see patients currently on
5 some Mondays but not every Monday.

6 Q. How many patients do you see a week?

7 A. Oh, at the current time, less than one.

8 Q. How long -- how long of a period of time has it been
9 that you're only about seeing one patient a week?

10 MR. DANNINGER: Object to form.

11 A. Well, I currently spend most of my time doing research
12 and teaching. I have reduced my clinical activity at
13 the current time because of my increased research and
14 teaching load. I don't know that I could give you a
15 concrete answer. My clinic load fluctuates somewhat.

16 BY MS. SLEVINSKI:

17 Q. Can you give me a rough estimate how much of your time
18 is divided between your research and teaching duties
19 and your treating of patients?

20 A. Well, I spend the majority of my time in research
21 currently. It's probably 60 percent of my time at the
22 moment. Teaching is probably 30 or 35 percent of my
23 time. Seeing patients is a small percentage.

24 Q. Do you have hospital privileges?

25 A. Yes.

1 Q. Where?

2 A. The University of Michigan Medical Center.

3 Q. Is that the only hospital?

4 A. Yes.

5 Q. During your career, have you ever been asked to design
6 a medical monitoring program?

7 A. I --

8 MR. DANNINGER: Object to form.

9 A. Yeah, your question broke up a little bit. During my
10 what?

11 BY MS. SLEVINSKI:

12 Q. In your career, during your professional career, have
13 you ever designed a medical monitoring program?

14 MR. DANNINGER: Object to form.

15 A. Yes.

16 BY MS. SLEVINSKI:

17 Q. Did you ever design a medical monitoring program?

18 A. Yes.

19 Q. Can you describe -- how many times?

20 A. I've probably designed and run five or six or seven of
21 them.

22 Q. Are they ever specifically related to environmental
23 exposures to arsenic, cadmium, or lead?

24 MR. DANNINGER: They being his medical
25 monitoring programs?

1 MS. SLEVINSKI: Yes.

2 MR. DANNINGER: Okay.

3 A. Well, they've certainly involved lead, so I'd have to
4 say yes.

5 BY MS. SLEVINSKI:

6 Q. Which ones?

7 A. I designed and ran the medical monitoring program for
8 two different brass foundries that had lead issues. I
9 also designed and ran the medical monitoring program
10 for an analytic laboratory that handled all sorts of
11 environmental samples that were coming in for chemical
12 analysis.

13 Q. Were these more of an occupational exposure type of
14 monitoring program or designed for occupational
15 exposures?

16 A. Well, they were designed to do medical monitoring for
17 people who had potential exposure in the instance of
18 the foundries to lead, and in the instance of the
19 analytic laboratory for people who had potential
20 exposure to a very wide range of chemicals including
21 heavy metals.

22 Q. What were they monitoring for exactly? What type of
23 heavy metals in the -- in the brass foundries?

24 MR. DANNINGER: Object to form. Can you
25 just repeat that for us? That kind of came through

1 broken.

2 BY MS. SLEVINSKI:

3 Q. What were the health effects you were monitoring for
4 in these programs?

5 MR. DANNINGER: Object to form. Go ahead,
6 Doctor.

7 A. The health effects, I was monitoring for adverse
8 health effects related to lead, and I was doing
9 biomonitoring for lead.

10 BY MS. SLEVINSKI:

11 Q. What exactly were those health -- like what were those
12 health effects? I mean can you list what they were?

13 A. Yes, we were looking for evidence of interference with
14 hematopoiesis and looking for evidence of impairment of
15 renal function.

16 Q. Were any of them looking -- were you looking for
17 cancer -- monitoring for cancer, excuse me, on any of
18 them?

19 MR. DANNINGER: Object to form.

20 A. Now, when you say any of them, are you talking about
21 the foundries now?

22 BY MS. SLEVINSKI:

23 Q. Just the monitoring programs for lead exposure.

24 A. Well, no, we weren't looking for cancer. Lead doesn't
25 cause cancer. I designed programs that were -- that

1 brought those foundries into compliance with the OSHA
2 lead standard. There was no mention of monitoring for
3 cancer in the OSHA lead standard.

4 Q. Were you monitoring for any sort of kidney dysfunction
5 in any of your programs?

6 A. Yes.

7 Q. In the lead program?

8 A. Yes.

9 Q. What type of screening procedures did you recommend in
10 your medical monitoring program for the lead?

11 A. We did a BUN and creatinine.

12 Q. On your C.V., it lists that you're a reviewer of
13 scientific manuscripts for epidemiology in the
14 American Journal of Epidemiology; do you currently
15 hold that position?

16 A. Yes.

17 Q. When did you become a reviewer for that journal?

18 A. I don't recall, it's been a long time.

19 Q. What current responsibilities would that entail?

20 A. Reviewing manuscripts.

21 Q. About how -- what's the time commitment for that?

22 A. Whenever I get a manuscript, I review it and write a
23 review back to the editorial board. That typically
24 takes a few hours each time.

25 Q. How often do you receive manuscripts for review?

1 A. I probably get a manuscript every few weeks, maybe
2 every three weeks.

3 Q. Dr. Garabrant, what did you do as far as preparation
4 for your deposition today?

5 A. I reviewed my report. I went back over the materials
6 I rely upon. I reviewed Dr. Werntz's report. I
7 looked back at Dr. Brown's report, and I went over
8 some of the defense reports.

9 Q. Which defense reports did you review in preparation
10 for the depo?

11 A. Dr. Valberg's report, Dr. Rodericks' report,
12 Dr. Herzstein's report, a report from Gradient
13 Corporation, I think those are it.

14 MS. SLEVINSKI: Could I ask the court
15 reporter to please get Exhibit No. 151 and hand that
16 to Dr. Garabrant and a copy to defense counsel,
17 please?

18 MARKED BY THE REPORTER:

19 DEPOSITION EXHIBIT NUMBER 151

20 3:34 p.m.

21 COURT REPORTER: All right, I've done so.

22 MS. SLEVINSKI: Go ahead and mark this as
23 Exhibit 151 for the deposition.

24 BY MS. SLEVINSKI:

25 Q. Dr. Garabrant, do you recognize this as the report you

1 submitted in this case?

2 A. Yes.

3 Q. If you turn to the page, second page, No. 2, you list
4 some of the materials that you reviewed in preparing
5 your report. You mentioned in -- just now that you
6 reviewed some of the defense experts, and did you
7 review those at all, or were you the -- when you were
8 forming your opinions for your report that you
9 submitted?

10 MR. DANNINGER: Hey, Amanda, I'm going to
11 interrupt you real quick.

12 MS. SLEVINSKI: Okay.

13 MR. DANNINGER: This document that you gave
14 us here, 151 --

15 MS. SLEVINSKI: Yes?

16 MR. DANNINGER: I know that this is how it
17 came on the disk. This has a missing page 4 --

18 MS. SLEVINSKI: Oh, okay.

19 MR. DANNINGER: -- and the messed up
20 photocopy of page 3 that includes a portion of page 4.
21 I believe we sent an extra page to make up for that
22 problem, and it's not actually in this document
23 here --

24 MS. SLEVINSKI: Okay.

25 MR. DANNINGER: -- so this is not a

1 complete report of Dr. Garabrant.

2 BY MS. SLEVINSKI:

3 Q. Do you have the -- do you have your complete report
4 with you, Dr. Garabrant, with the missing page 4
5 included?

6 A. Yes.

7 Q. Okay. You can refer to that one; is that all right?

8 A. Yes.

9 Q. Okay.

10 MR. DANNINGER: Thank you, Amanda. Sorry
11 to interrupt you there.

12 MS. SLEVINSKI: Okay.

13 BY MS. SLEVINSKI:

14 Q. Do you have your complete report, Dr. Garabrant?

15 A. Yes, I do.

16 Q. All right. I notice you didn't include any of the
17 defense experts before under your materials reviewed
18 for your -- for your expert report. Is that -- is
19 that true that you did not consider those in drafting
20 your opinions for this statement?

21 A. I believe that I had not received the defendant's
22 experts' reports at the time I completed my report.

23 MS. SLEVINSKI: Madam court reporter, would
24 you please get Exhibit No. 158? Go ahead and mark
25 that.

1 COURT REPORTER: Okay.

2 BY MS. SLEVINSKI:

3 Q. Do you have the exhibit in front of you,
4 Dr. Garabrant?

5 A. Yes, I do.

6 Q. This is an e-mail from Mr. Axler to you from February
7 the 20th of 2007, and this e-mail, itself, indicates
8 you received several attachments of reports. Do you
9 see where -- this -- this is, I will say, only the
10 first page, it doesn't include the copies of the
11 attachments. That was quite a number of pages, but do
12 you see on the copy of this e-mail where there are
13 attachments?

14 A. Yes.

15 Q. The first one is a February 2006 Rodericks' expert
16 report. Do you see that?

17 A. Yes.

18 Q. And Dr. Roderick is a defense expert. Is that one of
19 the materials that you reviewed that you were just
20 referring to?

21 A. Hold on, I have to look.

22 MR. DANNINGER: Did you hear that, Amanda?

23 MS. SLEVINSKI: I'm sorry?

24 MR. DANNINGER: Did you hear what the
25 doctor just said that he has to look?

1 MS. SLEVINSKI: Yes.

2 MR. DANNINGER: Okay.

3 A. Okay, what was your question?

4 BY MS. SLEVINSKI:

5 Q. Well, you said that you hadn't received the defense
6 expert report prior to forming your opinions for
7 your -- the report you wrote, and this e-mail
8 indicates that at least two of these attachments were
9 defense expert reports, and you did not mention them
10 in your -- just now when you said you had stuff that
11 you reviewed from the defense experts.

12 MR. DANNINGER: Object to form. There's no
13 question there.

14 BY MS. SLEVINSKI:

15 Q. You said that you hadn't received the defense expert
16 reports prior to writing your reports. Does this
17 refresh your recollection that on February the 20th of
18 2007 before you wrote your report, you received two of
19 the defense experts' reports via e-mail?

20 A. This e-mail indicates that I did receive a February
21 2000 version of the Rodericks report and what I
22 believe is a 2/14/06 version of the Herzstein expert
23 report. I had forgotten that I had received those. I
24 don't recall whether I actually reviewed them or not
25 in preparing my report.

1 MR. DANNINGER: And just for the record, I
2 believe that Dr. Garabrant just said a February 2000
3 report, and I think he actually meant February 2006
4 report that it actually says on the document that he
5 gave us as Exhibit 158.

6 THE WITNESS: I did mean 2006, I apologize.

7 BY MS. SLEVINSKI:

8 Q. Okay. Since you're not -- you're not relying on any
9 of these reports, then, since it's not included in
10 your materials section of your report?

11 MR. DANNINGER: Object to form, there's no
12 question there.

13 BY MS. SLEVINSKI:

14 Q. I asked you are not relying on these, are you, then,
15 these defense experts that were not listed in your
16 report as materials you relied upon?

17 A. I -- do not believe I had read Dr. Herzstein's report
18 when I wrote my own report.

19 I think I had read Dr. Rodericks' report,
20 I'm not sure at this point because I have a new -- I
21 have a May 2007 Rodericks' report, and I'm not sure
22 from memory what I read in his -- his February 2006
23 report. It looks as though I did receive it. I may
24 well have looked at it, I'm not sure at this point.

25 Q. Are you relying on Dr. Rodericks' February 2006 report

1 that you received in the e-mail or any of the opinions
2 that you are going to offer today in your report?

3 A. It's hard for me to answer that because I don't recall
4 what was in that report that differentiates it from
5 his May 2007 report.

6 Q. You didn't list it in your second page of your report
7 where you listed materials reviewed. You listed two
8 reports by Dr. Werntz, a report by Dr. Kornberg, a
9 deposition of Dr. Werntz and a Dr. Brown, an expert
10 report by Dr. Brown, correct?

11 A. That is what is listed on page 2 of my report.

12 Q. So there's nothing about the Rodericks' February 2006
13 report, the Herzstein's -- I guess that's a 2/14/2006
14 report, and there were also an expert rebuttal report
15 by Dr. Kornberg and a portion of a hearing transcript
16 of Dr. Kornberg --

17 MR. DANNINGER: Object to form.

18 BY MS. SLEVINSKI:

19 Q. -- were not included on your materials reviewed
20 section?

21 MR. DANNINGER: Object.

22 BY MS. SLEVINSKI:

23 Q. Correct?

24 MR. DANNINGER: Object to form.

25 A. Well, I didn't list them in my report. As to whether

1 I had read them or not, it's difficult for me to
2 recall from memory what was in those reports versus
3 what's in the updated reports. I do have a report
4 from Dr. Rodericks dated May 2007 and a report from
5 Dr. Herzstein dated May 2007, and from memory, I -- I
6 can't honestly recall the difference between those and
7 the earlier versions.

8 BY MS. SLEVINSKI:

9 Q. To clarify, you received Rodericks' and Herzstein's
10 May 2007 report after you had written and submitted
11 your report of this May 2007; is that correct?

12 A. Yes.

13 Q. So as far as the February 2006 Rodericks' report that
14 you are received an e-mail, the three items referenced
15 Dr. Kornberg and the Herzstein report, you didn't read
16 them, you could not have relied on any of the material
17 inside of them in forming your opinions?

18 MR. DANNINGER: Object to form.

19 A. Well, I know I read Dr. Kornberg's materials. I don't
20 believe I read Dr. Herzstein's, and I think I read
21 Dr. Rodericks', but I can't recall whether it's any
22 different than Dr. Rodericks' or I can't recall in
23 what ways it differs from Dr. Rodericks' May 2007
24 report.

25 BY MS. SLEVINSKI:

1 Q. So is the section in your report materials reviewed
2 incorrect? Is it missing some references of items
3 that you did, in fact, review?

4 MR. DANNINGER: Object to form.

5 A. Well, the section in my report where I said I've
6 reviewed the following materials does not mention the
7 Rodericks report which I had and which I believe I had
8 read. I guess it doesn't mention these Kornberg
9 expert rebuttal and hearing transcripts which I had,
10 as well, so perhaps it's not a complete list of all
11 the materials I had, but it certainly includes the
12 principal documents from the plaintiffs.

13 BY MS. SLEVINSKI:

14 Q. Now, back to your report. Does this report contain
15 all of the opinions that you intend to offer in this
16 case?

17 A. It includes all the opinions I have on the questions
18 that I was asked to address. If I am asked additional
19 questions, I may offer additional opinions.

20 Q. Have you been asked to offer additional opinions at
21 this point?

22 A. No.

23 Q. Is there anything that is included in this report that
24 you now know to be incorrect?

25 A. No.

1 Q. Other than the materials, of course, that are lacking
2 in your materials reviewed section?

3 MR. DANNINGER: Object to form.

4 A. Well, I don't think that what I wrote is incorrect.
5 It said I have reviewed the following materials, and I
6 had reviewed them.

7 BY MS. SLEVINSKI:

8 Q. Is there anything else -- is there anything in this
9 report that you think needs to be changed?

10 A. No.

11 Q. You provided a list at the end of your report on
12 page 12 with 148 different articles that you relied on
13 and reviewed in drafting the report; is that correct?

14 A. Yes.

15 Q. Is everything that you relied upon to support your
16 opinions?

17 MR. DANNINGER: Object to form, can you
18 repeat that?

19 BY MS. SLEVINSKI:

20 Q. The reference list at the end of his report that lists
21 reference items 1 through 148, are those all the
22 materials that you would rely upon for your opinions?

23 MR. DANNINGER: Thank you, sorry about
24 that.

25 A. No, there are also a number of publications that I

1 cited in my report in the Drummond case which your
2 firm deposed me on about six months ago that I also
3 relied upon that I did not list in this report.

4 BY MS. SLEVINSKI:

5 Q. So are you saying there are items that you knew --
6 relied upon in your report for the Drummond case that
7 you also relied upon for this case and you just did
8 not list them in your reference list for the Perrine
9 report --

10 A. Yes --

11 Q. -- correct?

12 A. -- I think that there are a few references that I
13 neglected to include in my bibliography.

14 Q. Do you know which ones those are?

15 A. I'm not sure I know them all. I know, for example, I
16 forgot to add the report by Kolonel. I forgot the
17 report by Pesch.

18 Q. Could you please spell that? Is it -- Pesch, please?

19 A. P-e-s-c-h.

20 Q. Which report was that by Pesch?

21 A. International Epidemiological Association 2000,
22 published in the International Journal Of Epidemiology
23 in 2000, Volume 29, page 1014 to 1024.

24 Q. The title, please?

25 A. Occupational Risk Factors For Renal Cell Carcinoma,

1 Agent Specific Results From A Case Controlled Study in
2 Germany.

3 Q. What's the one right before the Pesch study, please?

4 A. An article titled Association Of Cadmium With Renal
5 Cancer, the author is Lawrence Kolonel, K-o-l-o-n-e-l,
6 published in Cancer, Volume 37, pages 1782 to 1787,
7 1976.

8 Q. Is there any other ones that you left off from
9 Drummond that you relied upon for your Perrine report?

10 A. I have to look. Yeah. I forgot Mandel, the title is
11 International Renal Cell Cancer Study, Roman Numberal
12 IV, Occupation, published in the International Journal
13 of Cancer, Volume 61, pages 601 to 605, 1995.

14 Q. Any others? Excuse me, any others?

15 A. Yeah, one more article by Hu, H-u, titled Renal Cell
16 Carcinoma And Occupational Exposure To Chemicals In
17 Canada published in Occupational Medicine, Volume 52,
18 pages 157 to 164, 2002.

19 Q. Any others that you can identify?

20 A. We already talked about the IARC Monograph, Volume 87,
21 that's not cited in my report because it hadn't --
22 wasn't available yet.

23 Q. Is that it?

24 A. I think so.

25 Q. So would the complete list of materials you relied

1 upon be the 148 listed in your report and these 5 you
2 just named?

3 A. Yes, and -- and I guess we should add that I had read
4 the Rodericks 2006 report in addition.

5 Q. Okay. That's it, Dr. Garabrant, confirming that that
6 is the sum of the items that needs to be added?

7 A. I think so.

8 Q. Okay. Since you submitted your report, have you
9 reviewed any additional materials related to the
10 subject matter?

11 A. Yes.

12 Q. What were those?

13 A. The expert report of Joseph Rodericks dated May 2007.
14 The expert report of Jessica Herzstein dated May 2007.

15 Q. Is that it?

16 A. No, no, no, there's more.

17 Q. Okay.

18 A. The expert report of Peter Valberg dated May 2007, and
19 a report titled Review of Spelter area Dust and --
20 excuse me, Review of Spelter Area Soil And Dust
21 Sampling prepared by Gradient Corporation dated
22 July 25, 2006.

23 Q. Any others?

24 A. I think that's everything.

25 Q. Back to your -- I'm sorry, Dr. Garabrant. Did

1 anything that -- any of those items we just briefly
2 discussed that you reviewed after you submitted your
3 report, have you -- has anything from those items
4 changed your opinions in the report?

5 A. No.

6 Q. Did you draft your report yourself?

7 A. Yes.

8 Q. Did you have any assistance from anyone else?

9 MR. DANNINGER: Object to form.

10 BY MS. SLEVINSKI:

11 Q. Did anyone -- did anyone else assist you in drafting
12 your expert report in this case?

13 A. I have a research associate who assisted me.

14 Q. What's the name of your research associate, sir?

15 A. Susan Pastula.

16 Q. What exactly did Ms. Pastula do in assisting you in
17 drafting your report?

18 A. She located and pulled the scientific articles that I
19 identified that I needed. She organized them for me,
20 and she assisted me in finding the relevant sections
21 of those reports that were relevant to the issues in
22 this case, and she abstracted some of the information
23 from those reports.

24 Q. How did you go about identifying the articles that you
25 wanted Ms. Pastula to pull?

1 A. I have a library of articles on lead, cadmium, and
2 arsenic which I read. I then identified articles in
3 the bibliographies of those articles I had read. I
4 asked her to get those. I asked her to do a
5 literature search on articles involving lead, cadmium,
6 and arsenic, and cancer. I reviewed the results of
7 that search and identified articles I wanted her to
8 pull for me.

9 Q. Did you conduct a literature search on your own, sir?

10 A. I may have, I don't recall offhand.

11 Q. Do you keep track of your time which is spent working
12 on cases like this?

13 A. Yes.

14 Q. And would that have been something you would record in
15 your timekeeping?

16 MR. DANNINGER: Object to form.

17 A. If I spent time doing it, I would certainly have
18 recorded the time unless I forgot.

19 BY MS. SLEVINSKI:

20 Q. Before you actually started drafting your report, did
21 you have any meetings with the lawyers?

22 MR. DANNINGER: Object to form.

23 A. Do you mean the lawyers in this case?

24 BY MS. SLEVINSKI:

25 Q. Yes.

1 A. Yes.

2 Q. Who did you meet with?

3 A. I believe I met with Mr. Axler, and I believe I met
4 with Mr. Danninger.

5 Q. Did you send an initial draft of your report to
6 Mr. Axler or Mr. Danninger?

7 A. No.

8 Q. Did the lawyers provide any revisions at any point to
9 your report?

10 A. No.

11 MS. SLEVINSKI: Can we take just a
12 five-minute break real quick?

13 MR. DANNINGER: Of course.

14 MS. SLEVINSKI: Is that okay?

15 VIDEO TECHNICIAN: This marks the end of
16 tape No. 1. We are now going off the record. The
17 time is 3:59 and 28 seconds p.m.

18 (Recess taken at 3:59 p.m.)

19 (Back on the record at 4:09 p.m.)

20 VIDEO TECHNICIAN: This marks the beginning
21 of tape No. 2. We are now back on the record. The
22 time is 4:09 and 13 seconds p.m.

23 BY MS. SLEVINSKI:

24 Q. Dr. Garabrant, before we just took our break, we were
25 discussing the steps you took in preparation --

1 preparing your expert report in this case. You
2 mentioned that when you were drafting the report, you
3 didn't send the draft to the lawyers prior to
4 submitting your filing the report, correct?

5 A. Yes.

6 MS. SLEVINSKI: Madam court reporter, could
7 you please get Exhibit 166? And mark that.

8 MARKED BY THE REPORTER:

9 DEPOSITION EXHIBIT NUMBER 166

10 4:10 p.m.

11 MR. DANNINGER: Just for the record,
12 Amanda, I was going to say that they're actually
13 already marked.

14 MS. SLEVINSKI: Okay, thank you.

15 MR. DANNINGER: Yep.

16 MS. SLEVINSKI: Madam court reporter,
17 following up on that, I would like to have all the
18 exhibits attached to the deposition as well, please.

19 COURT REPORTER: All right.

20 BY MS. SLEVINSKI:

21 Q. Dr. Garabrant, do you have the Exhibit 166 now?

22 A. Yes.

23 Q. Do you recognize this as an e-mail that you sent to
24 Mr. Axler on April 30th of 2007?

25 A. Yes.

1 Q. And this e-mail says Mitch, my report is done, I will
2 proof -- I will proofread and make final edits on
3 Wednesday. All references will be Fed. Ex'd tomorrow
4 for Wednesday delivery. Best wishes, David. Correct?

5 A. Yes.

6 Q. This -- were you -- I mean is this referring to your
7 final report being completed in the Perrine case?

8 A. Yes.

9 MS. SLEVINSKI: Madam court reporter, could
10 you please get Exhibit 154?

11 MARKED BY THE REPORTER:

12 DEPOSITION EXHIBIT NUMBER 154

13 4:11 p.m.

14 COURT REPORTER: Okay, they have copies.

15 MS. SLEVINSKI: Thank you.

16 BY MS. SLEVINSKI:

17 Q. Dr. Garabrant, this is an invoice you sent to
18 Mr. Axler dated May the 15th, 2007, correct?

19 A. Yes.

20 Q. And this is an accurate reflection of your work and
21 billing for this case --

22 A. Yes.

23 Q. -- for this report?

24 A. Yes.

25 Q. If you look down, it's an itemized bill at the date,

1 4/30/07, April 30th, 2007, do you see that date with
2 the entries for your work?

3 A. Yes.

4 Q. And it says preparation of report and review of
5 materials, 4.2 hours for that day, correct?

6 A. Yes.

7 Q. That's the same day, April 30th, 2007, as in
8 Exhibit 156 that we just looked at where you e-mailed
9 Mr. Axler saying you had finished your report,
10 correct?

11 A. Yes.

12 Q. The next entry on your billing statement, May the 3rd,
13 2007, you had a telephone conference -- conversation,
14 excuse me; is that correct?

15 A. Yes.

16 Q. Who did -- who was involved on that conversation with
17 you on May the 7th?

18 MR. DANNINGER: Object to form, it's
19 actually May the 3rd on the invoice.

20 BY MS. SLEVINSKI:

21 Q. Excuse me, May the 3rd, I apologize. Who were you
22 speaking to in that telephone conversation?

23 A. I don't know from memory. Probably Mr. Axler.

24 Q. Probably Mr. Axler on May the 3rd. Now, May the 7th,
25 you go on to indicate 1.7 hours' worth of preparation

1 of your report. This was several days following your
2 e-mail on April the 30th saying the report was done
3 and you had just had a telephone conversation with
4 Mr. Axler a couple days before, correct?

5 A. Yes.

6 Q. Were any changes made in your report during the period
7 of time from April the 30th when you said it was
8 completed and you spoke Mr. Axler and then you
9 prepared your report some more, were any changes made?

10 MR. DANNINGER: Object to form. I think
11 you're misrepresenting what the April 30th e-mail
12 says. I think it actually says he's going to make
13 pages just for record.

14 MS. SLEVINSKI: I will proofread and make
15 final edits on Wednesday?

16 MR. DANNINGER: It's just an objection for
17 the record.

18 A. So what is your question?

19 BY MS. SLEVINSKI:

20 Q. In your -- were changes made between April the 30th
21 when you sent the e-mail when you said my report is
22 done, substantive changes, and May the 7th when you
23 did more preparation of your report?

24 A. Well, it appears that on May 7th, I worked on my
25 report.

1 Q. After talking with Mr. Axler?

2 A. Well, it was on May 7th, I spoke with him on May 3rd.

3 MR. DANNINGER: Amanda, let me just
4 interrupt a second. It sounds like we're somewhat
5 possibly picking up someone in the background. Is
6 there someone else that we should add to the record in
7 this?

8 MS. SLEVINSKI: No.

9 MR. DANNINGER: Okay.

10 BY MS. SLEVINSKI:

11 Q. I'm sorry, Dr. Garabrant, what were you saying? Were
12 you --

13 A. I said I worked on my report on May 7th. I had a
14 telephone conversation on May 3rd.

15 Q. Dr. Garabrant, when were you first contacted by the
16 defense counsel in this matter?

17 A. I don't recall exactly. I worked with Mr. Axler on
18 the Drummond case in 2006, and at some point between
19 then and February of 2007, I believe he asked me if I
20 would assist on the Perrine case. I don't recall
21 exactly when.

22 Q. I'm sorry, somewhere between when in 2006 and February
23 of 2007?

24 A. I don't recall, I said I worked on the Drummond case
25 in 2006, and somewhere in between 2006 when I was

1 working on Drummond and February of 2007, I believe he
2 asked me to work on the Perrine case.

3 Q. But it was Mr. Axler?

4 A. Yes.

5 Q. When did -- when you first discussed the -- working on
6 the actual Perrine case, did you do that -- did you do
7 that in person, or did y'all have a phone call?

8 A. I think we did it in person.

9 Q. Did you -- when was that meeting?

10 A. I don't recall.

11 Q. If you look at Exhibit 154, your bill, it says March
12 the 16th, 2007, meeting, would that most likely be the
13 first meeting you had regarding this case?

14 A. I don't know. If it's the first time I've billed for
15 this case, then yes, it was the first meeting I had
16 regarding this case. My recollection, however, is
17 that at some point, when I was working on the Drummond
18 case toward the end of that case, Mr. Axler asked me
19 if I would be willing to assist him on the Perrine
20 case.

21 Q. This is the only bill we received, so is that -- is
22 this an accurate reflection of all your work on this
23 case?

24 A. If it's the only bill I've sent regarding this case,
25 it is an accurate reflection of the time I spent on

1 this case.

2 Q. When you first met about the Perrine case, did you --
3 were you asked if you had any opinions about arsenic
4 and cadmium or lead and the health effects they might
5 cause?

6 A. Well, I don't know. I don't recall Mr. Axler asking
7 me that. I had been working with him on the Drummond
8 case, so I think he had a pretty good idea what my
9 opinions were.

10 Q. How about any of the other -- other attorneys besides
11 Mr. Axler working on this case?

12 A. I have met with Mr. Danninger, also.

13 Q. When did you meet with Mr. Danninger?

14 A. I'm not sure. I believe I've met with him a couple of
15 times prior to today.

16 Q. Would that have been reflected in the bill you
17 provided?

18 A. Well, I don't see that the bill mentions
19 Mr. Danninger, but I believe I met with him twice.

20 Q. Was there anyone else besides Mr. Axler and
21 Mr. Danninger that you met with? Lawyers I'm
22 referring to.

23 A. You know, it's difficult for me to recall because I
24 can't separate the Drummond case from the Perrine case
25 in my memory. I know I met with Mr. Wickline in the

1 past. I think that was on Drummond but not Perrine,
2 but I'm not sure.

3 Q. Have you ever talked to anyone at DuPont, not the
4 lawyers representing DuPont, but any person who works
5 for DuPont about this case or your opinions in this
6 case?

7 A. No.

8 Q. What's the general message you follow when you're
9 performing the requested work?

10 MR. DANNINGER: Object to form.

11 A. I'm sorry, I don't understand that question. Could
12 you clarify that?

13 BY MS. SLEVINSKI:

14 Q. You were asked to do work with by Mr. Axler and
15 Mr. Danninger in this case. What -- is that --is that
16 correct?

17 MR. DANNINGER: Object to form.

18 A. I believe I was asked by Mr. Axler.

19 BY MS. SLEVINSKI:

20 Q. What did they ask you to do? Or excuse me, what did
21 Mr. Axler ask you to do?

22 A. I believe he asked me to review materials and to come
23 to opinions regarding Dr. Werntz's proposed medical
24 monitoring plan focusing on issues of which of the
25 diseases for which Dr. Werntz wanted to monitor was

1 there evidence that they were causally related to the
2 alleged exposures from the Spelter smelter plant and
3 to comment on whether that proposed medical monitoring
4 plan was scientifically valid.

5 Q. You said he asked you to review some materials; were
6 they materials Mr. Axler provided you?

7 A. Some of them, were.

8 Q. What were those?

9 A. Dr. Werntz's medical monitoring plan, Dr. Kornberg's
10 medical monitoring plan, Dr. Werntz's deposition
11 testimony, Dr. Werntz's draft medical monitoring plan,
12 Dr. Werntz's deposition exhibits, the report of
13 Dr. Brown, and whatever else that I felt that I needed
14 to review.

15 Q. Prior to being contacted and meeting with Mr. Axler,
16 did you have any opinions on the ability of arsenic to
17 cause cancer?

18 A. Yes.

19 Q. What were they?

20 A. To the best of my recollection, my opinions at that
21 point were the same as they are now.

22 Q. Which -- what is that? What are they?

23 A. That some forms of inorganic arsenic have been
24 causally associated with cancer in humans under
25 circumstances of heavy and prolonged exposure.

1 Inhalation of arsenic, of inorganic arsenic compounds,
2 has been associated with cancer of the respiratory
3 tract. Ingestion of arsenic-contaminated water is
4 associated with cancers of the bladder and kidney,
5 specifically transitional cell carcinomas of the
6 kidney and cancers of the skin and hepatic
7 angiocarcinoma.

8 Q. Prior to working on this case and speaking with
9 Mr. Axler, did you have any opinions on the ability of
10 cadmium to cause cancer?

11 A. Yes.

12 Q. What were they?

13 A. I believe that inhalation of cadmium under
14 circumstances of heavy and prolonged exposure is
15 associated with increased risk of cancer of the
16 respiratory tract.

17 Q. Is that it?

18 A. And -- well, I could add that ingestion of cadmium is
19 not known to cause cancer in humans.

20 Q. The same question but with respect to lead and cancer.

21 A. Yes, I have opinions on that. Lead is not known to
22 cause cancer in humans under any circumstances or by
23 any route of exposure.

24 Q. Is that it for lead?

25 A. Yes.

1 Q. What are you basing these opinions on?

2 A. My review of the scientific literature on those three
3 classes of chemical compounds.

4 Q. Before your work on this case, had you ever conducted
5 any research on your own on the ability of arsenic to
6 cause skin cancer?

7 A. I don't believe so, not arsenic and skin cancer.

8 Q. What about arsenic and lung cancer?

9 A. I would have to look back at all my research studies
10 to see whether any of them had included arsenic. Some
11 of them may well have. I've done a number of cohort
12 studies where arsenic exposures may well have been
13 considered.

14 Q. So you're saying you have no specific memory?

15 A. That's correct. It's possible that arsenic exposures
16 were considered in some of my studies in the past.

17 Q. In your prior studies, had cadmium been a subject
18 matter that you researched as it relates to its
19 ability to cause cancer?

20 A. I don't recall specifically studying cadmium,
21 although, I know in one of our studies in the auto
22 manufacturing industry, we probably did investigate
23 cadmium exposures as one of the potential exposures of
24 interest.

25 Q. Did you do any independent research to investigate the

1 issues in this present case that you were asked to
2 opine on?

3 MR. DANNINGER: Object to form.

4 A. I'm sorry, I don't understand your question.

5 BY MS. SLEVINSKI:

6 Q. Did you conduct any independent research on the issues
7 of arsenic, cadmium, lead, and the specific health
8 effects that are at issue in this suit? Did you do
9 any independent research on that?

10 A. I'm not sure what you mean by independent research.
11 I -- I located a tremendous amount of published
12 literature on that issue or those issues and read it
13 and synthesized my opinions. If -- if that is what
14 you mean by research, then the answer is yes.

15 Q. In preparation for your report in this case, did you
16 discuss any of the work you were asked to do with your
17 colleagues at the University of Michigan?

18 A. No.

19 Q. Did you discuss any of the conclusions or opinions
20 that you reached with any of your colleagues?

21 A. No.

22 Q. Did you consult with them, the colleagues on their
23 opinions?

24 A. No.

25 MR. DANNINGER: Object to form.

1 A. No.

2 BY MS. SLEVINSKI:

3 Q. Conducting your investigation in this matter of -- do
4 you agree that the basic process you follow is you
5 gather scientific and medical literature, you read it,
6 and you just relied on your training and experience to
7 form an opinion to those matters?

8 A. Well, I would say that I read the materials specific
9 to this case such as Dr. Werntz's proposed medical
10 monitoring plan and his draft medical monitoring plan
11 and his deposition testimony and Dr. Kornberg's
12 medical monitoring plan, and then I did my own
13 background research, reading the literature and
14 considering it and formulating my opinions to address
15 the issues raised by Dr. Werntz's report.

16 Q. That sort of methodology was a reliable process to
17 follow in conducting this type of an investigation?

18 MR. DANNINGER: Object to form.

19 A. I'm not sure what you mean. Yes. What I did in this
20 case was read the case materials, think about them,
21 find and review the relevant scientific literature,
22 form opinions, write those opinions down, and convert
23 that into a report.

24 BY MS. SLEVINSKI:

25 Q. You'd agree, Dr. Garabrant, wouldn't you, that another

1 person could read and review the materials, the same
2 material you did, and reach a different conclusion; is
3 that correct?

4 A. I don't think that a qualified scientist in the area
5 of occupational medicine and cancer epidemiology would
6 come to appreciably different conclusions than mine.

7 Q. Looking at your report, you mentioned that you
8 authored over a hundred research articles, book
9 chapters, abstracts related to the long-term health
10 effects of chemicals; is that correct?

11 A. I think that's correct, yes.

12 Q. How many of those are peer-reviewed published
13 articles?

14 A. About a hundred of them.

15 Q. How many would be for book chapters?

16 A. Well, it's in my C.V., book chapters, it looks like
17 eight.

18 Q. Eight book chapters?

19 A. Yep.

20 Q. What about abstracts that are related to the long-term
21 health effects of chemicals?

22 A. Well, I'd have to go through them one by one by one.
23 I list about 55 abstracts. I mean I'd have to go
24 through them one by one. I don't know how many are
25 abstracts versus posters versus invited talks and

1 things. They're on my C.V. starting at page 18 and
2 going through page 21. There's about 50 items listed.

3 Q. Okay, thank you. As far as -- well, were you the
4 primary author on all of these items, the articles?
5 Let's start with the articles. Were you the primary
6 author on any of the articles?

7 A. Yes.

8 MR. DANNINGER: Object.

9 BY MS. SLEVINSKI:

10 Q. How many?

11 MR. DANNINGER: Object to form. Just so
12 I'm clear, what articles are we talking about? The
13 last set? The ones he said about 50, or any articles
14 that his name is on in any way, whatsoever?

15 MS. SLEVINSKI: 100 research articles.

16 MR. DANNINGER: Okay.

17 A. Well, you can look at my C.V., and I mean we can go
18 through and count all the ones where I'm the first
19 author if you want to do that. It's self-apparent.

20 MR. DANNINGER: Do you want the doctor to
21 do that?

22 MS. SLEVINSKI: No, thank you. No, I
23 don't.

24 BY MS. SLEVINSKI:

25 Q. Can you explain to me what the significance is of

1 being the primary author?

2 A. It means you're the primary author. It means you --
3 you write the article, you're the person who is
4 principally responsible for it. It often means that
5 you direct that part of the research or that research
6 project.

7 Q. Is the primary author the same thing as would be the
8 primary investigator?

9 A. Well, I don't know what a primary investigator is.

10 MS. SLEVINSKI: Can we take a little quick
11 break? I'm sorry to keep doing this.

12 MR. DANNINGER: Yeah, no problem.

13 THE WITNESS: Sure.

14 VIDEO TECHNICIAN: We're going off the
15 record. The time is 4:36 and 58 seconds p.m.

16 (Recess taken at 4:36 p.m.)

17 (Back on the record at 4:49 p.m.)

18 VIDEO TECHNICIAN: We are now back on the
19 record. The time is 4:49 and 52 seconds p.m.

20 BY MS. SLEVINSKI:

21 Q. Dr. Garabrant, could you turn back to Exhibit No. 154?
22 That was your invoice.

23 A. Yes.

24 Q. Do you have 154 in front of you?

25 A. Yes.

1 Q. Okay, and I think we established earlier, but just I
2 want to clarify this is the only invoice that you've
3 submitted to Mr. Axler for payment in this case,
4 correct?

5 A. As far as I know, that's correct.

6 Q. In just looking at this, it appears that you bill at
7 \$525 an hour; is that correct?

8 A. Yes.

9 Q. Does your hourly rate differ for testimony?

10 A. No.

11 Q. It does not?

12 A. No.

13 Q. Oh, okay. As of May 15th, 2007, this bill indicates
14 you have charged a total of \$29,397.50. Is that
15 correct?

16 A. Yes.

17 Q. And 47.9 hours is attributable to work completed by
18 yourself, correct?

19 A. Yes.

20 Q. And that's \$25,000 -- 147 and 50 cents?

21 A. Yes.

22 Q. And the other, it was 34 hours completed by your
23 research assistant, that was Susan Pastula; is that
24 the same individual?

25 A. Yes.

1 Q. Her work was worth \$4,250, correct?

2 MR. DANNINGER: Object to form.

3 A. That's what I billed for her time.

4 BY MS. SLEVINSKI:

5 Q. Billed for her time. This bill was submitted under

6 the title -- the letterhead indicates David H.

7 Garabrant, P.L.L.C. Is this a company that you

8 started for litigation consultation purposes?

9 A. No, it's my professional limited liability corporation
10 for my consulting work.

11 Q. For your litigation consulting work, correct?

12 A. No.

13 Q. What other types of consulting work are you involved
14 with with your P.L.L.C.?

15 A. I do consulting work related to occupational
16 environmental epidemiology and review of scientific
17 issues.

18 Q. Well how much of your consulting business is divided
19 between litigation work and the work you just
20 described?

21 A. I don't know that I have a number. I am involved in a
22 number of issues that are not litigation on which I
23 spend my time.

24 Q. Can you try and approximate?

25 A. I -- I have to guess. Is that what you want me to do?

1 Q. That's fine, yes, sir.

2 A. I would guess that the majority of my consulting work
3 is litigation related.

4 Q. Your research assistant, is she an employee of your
5 company or the University of Michigan?

6 A. Of my company.

7 Q. So she's paid solely by your company?

8 A. Yes.

9 Q. Not affiliated with a university, correct?

10 A. She has been affiliated with the university in the
11 past.

12 Q. Is she -- I mean is she presently affiliated with the
13 university?

14 A. I don't believe so.

15 Q. Now, the money you received in payment for your
16 services, your consulting business, that is strictly
17 money to you, to your company, correct?

18 A. Yes.

19 Q. None of it goes to the university?

20 A. That's correct.

21 Q. Well, the date of this invoice is May 15th, 2007. How
22 much time have you spent working on this case since
23 the date of this invoice?

24 A. Not counting today, probably eight or ten hours.

25 Q. So would that be about another \$5,000?

1 A. Well, 4 or 5,000.

2 Q. How much time has your research assistant spent
3 working on it?

4 MR. DANNINGER: Object to form.

5 A. Since the date of this invoice?

6 BY MS. SLEVINSKI:

7 Q. Yes.

8 A. I don't know offhand. I'm not aware -- actually, you
9 know, I don't know to be honest. I don't know whether
10 she spent time on it or not.

11 Q. How was your time spent, the -- sorry, the eight or so
12 hours you said working, how would you describe that
13 time?

14 A. Reviewing materials and preparing for this deposition.

15 Q. Has that bill been submitted to the defense lawyers
16 yet?

17 A. No.

18 Q. I'm sorry, no?

19 A. No.

20 Q. When do you normally do that? When would normally you
21 submit that bill?

22 A. When I get around to it.

23 Q. Looking at the individual entries on your bill, we
24 discussed briefly the March 16th, 2007, meeting.

25 Again, you're not sure if that is when you, you know,

1 first talked with Mr. Axler on -- about your work for
2 the Perrine case?

3 MR. DANNINGER: Object to form of the
4 question.

5 MS. SLEVINSKI: Sorry?

6 MR. DANNINGER: Was there a question there?

7 MS. SLEVINSKI: Okay, I asked -- could I
8 have the court reporter read that back, please, my
9 question?

10 (The requested portion of the record was
11 read by the reporter at 4:57 p.m.)

12 MR. DANNINGER: Same objection.

13 A. I'm not sure whether that was when I first talked with
14 Mr. Axler. Actually, no, I know I talked with him
15 about the Perrine case before that, I just don't
16 remember when it was.

17 BY MS. SLEVINSKI:

18 Q. Okay, but I guess there -- I'll move on. April the
19 21st of 2007 is the first entry -- well, after the
20 meeting -- that -- that you spent four and a half
21 hours reviewing scientific literature; is that
22 correct?

23 A. Yes.

24 Q. And then on the 22nd, the next day, it says review of
25 materials; is that correct?

1 A. Yes.

2 Q. Can you explain to me what the difference is between
3 the scientific literature and how -- what you call
4 materials?

5 A. Yes. On the 21st, when I recorded my time, I wrote
6 down review of scientific literature. On the 22nd,
7 when I recorded my time, I wrote down review of
8 materials.

9 Q. Is there a difference substantively between scientific
10 literature and what materials would be?

11 A. There might be. Materials might have included some of
12 the case specific documents with or without scientific
13 literature. I don't know.

14 Q. So according to your invoice, it appears that you
15 reviewed scientific literature and materials for about
16 11 hours before you started preparing your report; is
17 that accurate based on this bill here?

18 A. Yep.

19 Q. Were you able to form opinions in this case after
20 reviewing and reading material for just 11 hours?

21 A. Well, I think that I was reading materials and
22 preparing my report throughout the month of April, and
23 I had begun to form opinions adequately to work on my
24 report.

25 Q. Right. Well, there's several -- well, there's two

1 entries, the 25th and 26th of April you describe as
2 preparation of report. On the 27th of April 2007,
3 meetings with Mr. Axler, and that was a -- you've put
4 on here was 6.7 hours, that was the meeting; is that
5 correct?

6 A. Yes.

7 Q. So that's pretty much half the time that you spent
8 reviewing the materials in this case, correct?

9 MR. DANNINGER: Object to form.

10 BY MS. SLEVINSKI:

11 Q. You spent half -- I'm sorry, strike that.

12 MS. SLEVINSKI: Can I get my question read
13 back, please?

14 (The requested portion of the record was
15 read by the reporter at 5:01 p.m.)

16 MR. DANNINGER: Same objection.

17 A. Well, the -- the Exhibit 154 speaks for itself. It
18 says I met with Mr. Axler for 6.7 hours on April 27th,
19 and it says I reviewed the scientific literature and
20 materials for 13.3 hours on April 21st and April 22nd.

21 BY MS. SLEVINSKI:

22 Q. So should I -- am I taking that as a yes, Dr.
23 Garabrant?

24 A. Well, I'm not sure what your question was.

25 Q. Well, you met with Mr. Axler for 6.7 hours on April

1 the 27th, that's just about half the amount of time
2 you had spent at that point reviewing the materials
3 and scientific literature, so I was asking you to
4 confirm whether that was the case.

5 MR. DANNINGER: Object to form.

6 A. Well, you know, it's kind of hard to figure out
7 what -- what it is you're trying to find out. You, I
8 think I've already mentioned that I had worked on the
9 Drummond case with Mr. Axler, and there was some
10 overlap in issues between the Drummond case and this
11 case, and because of the Drummond case, I had already
12 reviewed quite a bit of scientific literature that was
13 relevant to this case.

14 I also answered earlier in this deposition
15 that my opinions on the carcinogenicity and other
16 health effects of lead, arsenic, and cadmium were
17 pretty well formed before I met Mr. Axler in these two
18 cases. And so to some extent, I knew these issues.
19 You know, I've spent my career in occupational
20 environmental epidemiology and in research in the
21 long-term health effects of chemicals, and these are
22 substances that I know a fair amount about.

23 So if you're trying to characterize my
24 effort as 13 hours to review the scientific literature
25 in the case materials in order to form opinions,

1 that's not accurate. I did bill for 13 hours for
2 those activities on this case. That is accurate.

3 MS. SLEVINSKI: I'm going to object. I'm
4 going to move to strike that answer as nonresponsive.

5 BY MS. SLEVINSKI:

6 Q. Just asking a simple question, for you to confirm or
7 deny that the amount of time you spent meeting with
8 Mr. Axler on April the 27th of 2007 was roughly half
9 the amount of time you had spent up to that point
10 reviewing materials and scientific literature for this
11 case?

12 MR. DANNINGER: Amanda, the doctor's
13 response was completely responsive. He's clarifying
14 that he spent time before this doing the research and
15 that to fully answer the question, that has to be
16 taken into consideration. So he can answer, but he's
17 already answered the question, and he answered it
18 completely and properly. Go ahead, Doctor.

19 A. Ms. Slevinski, if your question is whether 6.7 hours
20 is roughly half of 11.3 hours, the answer is well,
21 it's a little more than half.

22 BY MS. SLEVINSKI:

23 Q. Thank you. When you met with Mr. Axler on the 27th,
24 you had been working on your report as indicated; did
25 you provide him a draft of your report at this time?

1 A. I don't believe I did.

2 Q. Did you discuss the opinions you had reached up to
3 that point?

4 A. I believe I discussed the issues in the case, and I
5 believe I discussed with him the framework of my
6 opinions.

7 Q. Did you make changes to what you'd worked on at that
8 point based upon your meetings?

9 A. No, I don't believe I did.

10 Q. Following your April meeting, you got an entry for
11 preparation of report on the 29th. On the 30th,
12 preparation of report and review of materials, that
13 was 4.2 hours for that April the 30th entry. Do you
14 recall how much was spent actually on the report and
15 how much you spent working reviewing materials?

16 A. No. Other than that it was a total of 4.2 hours.

17 Q. And then on May the 3rd, we discussed this a bit
18 earlier, the telephone conversation for 1.8 hours, you
19 indicated that it was Mr. Axler you spoke to; that is
20 correct, right?

21 A. I believe that's correct.

22 Q. How many times have you been retained to -- as an
23 expert in a case?

24 MR. DANNINGER: Can you repeat that? I
25 just didn't catch it Amanda.

1 BY MS. SLEVINSKI:

2 Q. I'm sorry, how many times have you been retained as an

3 expert witness?

4 A. In what period of time?

5 Q. The last five years.

6 A. I don't know, I would estimate a few dozen.

7 Q. Can you -- can you estimate what percentage of that

8 work was divided among work for the plaintiffs or work

9 for the defense?

10 A. That work was predominantly for defendants.

11 Q. Do you remember how many times you had your deposition

12 taken?

13 A. Not offhand. I would estimate I've been deposed,

14 perhaps, a few dozen times.

15 Q. Were there -- I'm sorry, I'm backtracking just a bit

16 to your response about your plaintiffs versus

17 defendant's work. Was there any work for plaintiffs

18 you did, or was it all defense?

19 A. I believe there was work for plaintiffs.

20 Q. How many? Can you elaborate on that?

21 A. I don't know. I would estimate perhaps five or ten.

22 Q. Five or ten? Can you identify any of the cases?

23 A. Within the past five years, is that the question?

24 Q. Well, yes, the time frame we were just discussing.

25 A. I -- I cannot from memory -- or I can't identify them

1 by name. I can recall some of the issues and some of
2 the situations, yes.

3 Q. Would you do that for me?

4 A. I remember a woman who worked for a plastics injection
5 molding company who developed asthma that was quite
6 clearly related to her exposures to pyrolysis products
7 when injection molding equipment overheated, and I
8 believe I consulted as an expert in her case.

9 Q. ... offer in that case?

10 A. I'm sorry?

11 Q. What opinions did you offer in that case, the
12 individual who was injured in the plastics
13 manufacturing field?

14 A. That her asthma was caused by her work.

15 Q. Was this civil litigation, or was this Workmen's Comp,
16 Workers' Compensation?

17 MR. DANNINGER: Object to foundation.

18 A. I don't recall offhand. I -- I don't recall the name
19 of the case. It was probably Workers' Compensation,
20 but I don't know.

21 BY MS. SLEVINSKI:

22 Q. Would the majority of your testimony that you
23 characterized as being plaintiffs be Workers' Comp.
24 testimony?

25 A. Yes.

1 Q. You were saying that these plaintiffs were Workers'
2 Compensation cases, there were five to ten, correct?

3 A. That's my best guess.

4 Q. How many total?

5 A. I don't understand your question.

6 Q. I'm sorry, how many cases total both -- both sides?
7 Because I -- defense and plaintiffs.

8 MR. DANNINGER: Is this back to the last
9 five years where he answered a couple dozen?

10 MS. SLEVINSKI: We're still talking about
11 the same time frame.

12 MR. DANNINGER: Okay.

13 A. I thought I just answered that, a few dozen.

14 BY MS. SLEVINSKI:

15 Q. The -- that thought that you answered that there was a
16 dozen -- a dozen defense cases you worked on as an
17 expert and just said 10 to something plaintiffs, I'm
18 trying to get a clarification.

19 A. I don't believe that was what I answered. I think you
20 asked me in the past five years how many cases had I
21 been retained on, and I think I said I few dozen.

22 Q. How many times have you testified in court as an
23 expert witness?

24 MR. DANNINGER: Is this back to the last
25 five years?

1 MS. SLEVINSKI: Ever.

2 A. In my life? I don't know.

3 BY MS. SLEVINSKI:

4 Q. You can't approximate?

5 A. Well, I -- if I had to guess, I -- I testify in court
6 maybe two times a year, three times a year, and that's
7 probably been true for ten years, so it might be
8 twenty or thirty.

9 Q. Have any of your opinions been excluded by a Court?

10 A. No.

11 Q. Have you ever offered an opinion that a medical
12 monitoring program is necessary for an environmental
13 or -- excuse me, occupational exposure?

14 MR. DANNINGER: Object to the form.

15 A. Do you mean an opinion in court?

16 BY MS. SLEVINSKI:

17 Q. Sure, in court.

18 A. No, I don't think I've been asked that question in
19 court.

20 Q. Have you ever offered an opinion in a -- in an expert
21 report where you recommend a medical monitoring
22 program because of an environmental or an occupational
23 exposure?

24 A. Yes.

25 Q. Which cases? Can you tell me any of the names?

1 A. I mean are we talking about litigation now?

2 Q. Yes, sir.

3 A. Well, that wasn't your question. I have written
4 reports where I've recommended medical monitoring.

5 Q. That would be within the framework of litigation.

6 A. Okay, then could you restate your question, please?

7 Q. In your professional career, when you've been retained
8 as an expert witness for some case or some civil
9 litigation, have you ever offered an opinion that a
10 medical monitoring program is necessary due to
11 environmental and occupational exposure?

12 A. Not to my recollection.

13 Q. I'm sorry, my -- my phone didn't pick up. What did
14 you say?

15 A. I said not to my recollection.

16 Q. So you're saying you've never opined that a medical
17 monitoring program is necessary on account of an
18 occupational or environmental exposure?

19 MR. DANNINGER: Object to the form.

20 A. Okay, could I ask you to clarify again? Are we
21 talking about in the litigation setting?

22 BY MS. SLEVINSKI:

23 Q. Yes, sir, in the litigation setting.

24 A. I do not recall having given an opinion in a legal
25 case that medical monitoring was required.

1 Q. In the litigation arena, have you ever given the
2 opinion that medical monitoring is not necessary
3 because of an occupational or environmental exposure?

4 A. I believe I have.

5 Q. I'm sorry, you don't believe you have?

6 A. I -- I believe I have.

7 Q. Which cases, Dr. Garabrant?

8 A. I believe I was involved in a case in which I said
9 medical monitoring as proposed by a plaintiff's expert
10 was not justified.

11 Q. Just one?

12 A. That's the only one I recall offhand.

13 Q. So this is the second case you've offered an opinion
14 on medical monitoring that it's not appropriate in a
15 situation as proposed?

16 A. Well, in this case and in the previous case, the
17 medical monitoring that was proposed had no scientific
18 validity, it was not sensible.

19 Q. The previous case you're talking about, what was it,
20 what did it involve?

21 A. It involved a group of construction workers who were
22 digging in the ground, and they dug into a dump site
23 that contained chemicals and --

24 Q. All right, keep going.

25 A. -- the plaintiff's expert proposed that they should

1 have medical monitoring because of that situation.

2 Q. What chemicals were they exposed to when they were
3 digging?

4 A. I don't recall exactly what they were exposed to. I
5 know it involved printing inks, some of the chemicals
6 were simply inks from printing plants.

7 Q. Outside of the litigation context, have you ever
8 recommended that a medical monitoring program is
9 necessary because of an occupational or environmental
10 exposure?

11 A. Yes.

12 Q. What -- what -- can you give me a list or identify
13 some of those?

14 A. Well, you've already asked me this today. We
15 discussed that I did the medical monitoring for two
16 brass foundries and also for a -- a laboratory that
17 did analytical testing of environmental samples.

18 Q. Just those three?

19 A. Well, no, there are a number more. I used to do the
20 medical monitoring for municipal firefighters, police
21 officers, emergency responders, I did the medical
22 monitoring for employees of a -- an electrical power
23 plant in which there was asbestos exposure, among
24 other things, there have probably been others in
25 addition. I don't recall them all from memory.

1 Q. Have you ever opined that an environmental exposure
2 was the cause of an injury in a lawsuit?

3 MR. DANNINGER: Object to form.

4 MS. SLEVINSKI: Would you like the question
5 read back, Dr. Garabrant?

6 A. No, I -- you know, you're asking me questions that I'm
7 interpreting to mean ever -- to mean over my entire
8 career. It's --

9 BY MS. SLEVINSKI:

10 Q. Right, then for this -- go ahead, then. I mean can
11 you answer that as it relates to your entire career?

12 A. Well, it takes a few minutes to think about my entire
13 career.

14 Q. Okay, go right ahead.

15 A. Okay. I don't recall any offhand, but I may have, I
16 don't know.

17 Q. You can't remember, are you done thinking?

18 A. I am.

19 Q. What percentage of your income is attributed to being
20 your work as an expert?

21 A. I don't know exactly, I would estimate perhaps half.

22 Q. Half? Is that what you said?

23 A. Yes.

24 Q. Before we get into the real substance of the opinions
25 in your report, is it correct to say that you disagree

1 with many of the conclusions reached by Dr. Werntz in
2 his report?

3 A. Well, I think we'd have to go through them one by one
4 by one. I certainly do have some disagreements with
5 Dr. Werntz.

6 Q. We certainly -- we will go through them, I'm just
7 asking you generally is it correct to say you disagree
8 with many of the conclusions Dr. Werntz reached?

9 MR. DANNINGER: Object to form.

10 A. Well, I think the question's so vague, I can't answer
11 it. I'd be happy to go through his report with you
12 sentence by sentence and tell you what things I agree
13 with and what things I don't agree with.

14 BY MS. SLEVINSKI:

15 Q. Dr. Garabrant, I'm going to talk with you for a little
16 bit about statistical methods, epidemiology in general
17 so you can help me understand and answer some
18 questions in this area. Do you agree that
19 epidemiology is the field of public health that is --
20 attempts to study the incidence, distribution, and
21 etiology of human disease?

22 A. Yes, among other things.

23 Q. What other things? Can you describe them to me?

24 A. The other things that are within the field of
25 epidemiology?

1 Q. Yes.

2 A. Well, I routinely define epidemiology as the
3 scientific discipline that studies the distribution of
4 disease in human populations and the distribution of
5 exposures in human populations.

6 Q. Does an epidemiologist design and conduct their own
7 studies in an attempt to identify different agents
8 that might be associated with an increased risk of
9 disease?

10 A. That's one of the things they do.

11 Q. What's something else they do?

12 A. It would take a very long time for me to answer that
13 fully. Do you really want me to do that?

14 Q. No, that's okay, thank you, Dr. Garabrant.

15 A. I mean you know, there are whole books on that.

16 Q. Yes, well, I appreciate that, thank you.

17 In your professional work, have you
18 personally participated in designing and/or carrying
19 out an epidemiological study?

20 A. Yes, many, many times. That's what I've spent my
21 career doing.

22 Q. You wouldn't be able to estimate how many?

23 A. I wouldn't? Yeah, I could estimate how many.

24 Q. Okay, well, could you do that?

25 A. Dozens.

1 Q. Dozens?

2 A. Dozens.

3 Q. What does dozens mean? I mean how many dozens?

4 A. Well, all right, here, let's look at my C.V., and I'll
5 start describing them for you. The easiest way is to
6 go to page 11 and looking at peer reviewed
7 publications, the second one, Exposures to Respirable
8 Airborne Penicillium from a Contaminated Ventilation
9 System, that was a study that I did with some
10 investigators from NIOSH where we went out to a
11 commercial building where there were complaints of
12 respiratory illness, and we investigated whether that
13 outbreak of respiratory illness was related to indoor
14 air qualities, and we did a research investigation and
15 concluded that it was due to contamination of the air
16 supply with mold. Okay?

17 If we look at No. 3, Job Activity And Colon
18 Cancer Risk, that was a study in which we used the
19 cancer incidence data from the Los Angeles County
20 Cancer Surveillance Program and analyzed whether the
21 pattern of colon cancer risk was associated with job
22 activities. So I designed, conducted, and analyzed
23 that study.

24 Q. On that study, do you recall which jobs you were
25 looking into?

1 A. Yes, we looked at all jobs among all residents of Los
2 Angeles County, and we constructed an activity rating
3 score to rate the occupational activity of those jobs,
4 and we showed that sedentary jobs put people at
5 increased risk of colon cancer. That study was
6 published as the lead article in the American Journal
7 of Epidemiology back in 1984, and that was the first
8 evidence that physical activity reduced risk of colon
9 cancer in humans. That study's been replicated over
10 50 times, and it is one of the few established causes
11 or you can say preventive factors in colon cancer in
12 humans.

13 It's one of the foundational observations
14 that we have about risk factors for colon cancer. And
15 I and my colleagues were the first people to discover
16 that as a result of that study that I designed and
17 conducted.

18 If we go to No. 4 on that page, Respiratory
19 and Eye Irritation for Boron Oxide and Boric Acid
20 Dusts, that's one of a number of reports we made from
21 a field epidemiology study we did at the Borax mine in
22 Boron, California, where there was concern about
23 respirator disease from the inhalation of sodium
24 borate and boric acid aerosols. That was a field
25 study that involved 629 people, some of whom are

1 quite -- were quite heavily exposed to inhalation of
2 those compounds in the mining, milling, and packaging
3 of boric acid and sodium borate products.

4 No. 5, Cancer Mortality Among Shoe and
5 Leather Workers in Massachusetts, that was a study in
6 which I got the union records from the shoe and
7 leather workers in Massachusetts and traced them to
8 establish who had died and causes of death and then
9 calculated proportion of mortality ratios to examine
10 the pattern of cancer deaths among shoe and leather
11 workers.

12 No. 6 is back to the Borax mine, that's the
13 study where we reported out the results of pulmonary
14 function testing, physical examinations, symptom
15 surveys, and chest x-rays among the miners, millers,
16 and packagers of Borax and boric acid.

17 No. 7 was a field investigation of an
18 outbreak of contact dermatitis among workers in the
19 printing plant who were handling a new type of
20 printing ink in which the company had introduced a new
21 aziridine based catalyst which was a potent sensitizer
22 and caused almost everyone who touched it to end up
23 with contact dermatitis of the hands and forearms. We
24 identified the aziridine hardening agent as the cause
25 which lead to its removal from the factory.

1 No. 8 was a paper --

2 Q. Before you get into No. 8, Dr. Garabrant --

3 A. Yes?

4 Q. -- we've gone through several. Can you help provide
5 me a number account for these, how many you did total?

6 A. Well, I was, you know, your question asked if I had
7 ever designed or conducted an epidemiology survey and
8 I thought that the -- and you wanted me to answer it,
9 I thought the best way to go through it was to go
10 through my entire C.V. and to list what are probably
11 40 or 50, maybe 60 different field investigations that
12 I designed, personally conducted, lead a team of
13 investigators on, and often was the principal author
14 or the coauthor on. And I can continue to do that for
15 as long as you would like to ask me questions like
16 that.

17 Q. Have you ever designed an epidemiological study that
18 deals with exposures to arsenic, lead, or cadmium?

19 A. Yes.

20 Q. Would you be able to pick those out and -- from your
21 C.V.?

22 A. Sure.

23 Q. Please do so.

24 A. No. 15 on page 12, Excessive Lead Absorption Resulting
25 from Exposure to Lead Naphthenate, that study involved

1 a plant. As I recall, it was a forging operation
2 where they were using lead naphthenate as a lubricant
3 on the dies, and they were generating aerosols of lead
4 naphthenate which was causing an outbreak of lead
5 poisoning in that workplace. There are more.

6 Q. Yeah, could you list -- tell me another one?

7 A. I have to go through them.

8 Q. Okay, I'm sorry.

9 A. This takes time.

10 Q. I didn't realize it.

11 A. Well, you know, there are, you know, probably 150
12 things listed here. I'm going to have to look at each
13 of them and think about whether they involved lead,
14 arsenic, or cadmium.

15 Q. That's fine.

16 A. No. 21 on page 12, Excessive Lead Absorption, it has
17 to do with lead, I don't even recall what it's about,
18 I'd have to pull the paper and read it again. That's
19 been almost 20 years ago. You know, there are --
20 there are a number of these where I believe we did
21 include questions or information on a variety of heavy
22 metals including lead and/or arsenic and/or cadmium.
23 Without having them in front of me, I'm making
24 educated guesses that those were part of the studies.
25 I'd actually have to get them and reread them to be

1 sure.

2 No. 18, Adenocarcinoma of the Stomach and
3 Exposure to Occupational Dust, I believe we looked at
4 exposure to metal dust which would have included lead
5 and may have included cadmium as risk factors for
6 stomach cancer.

7 No. 19, Mortality Of Aircraft Manufacturing
8 Workers in Southern California, I did an extensive --
9 extensive study including a cohort mortality study and
10 a nested case control study of stomach, and you have
11 esophagus cancer among workers who made aircraft
12 engine subassemblies at a plant outside of San Diego.
13 There was a tremendous amount of exposure to metals,
14 metal working fluids, welding, and solvents.

15 I believe that one of the principal metal
16 products they worked at was Kirksite, which is a zinc
17 alloy, that is commonly used for shaping metal panels
18 for, you know, bending and stretching metal panels
19 such as is done in the aircraft industry. I don't
20 recall all of the metals in that alloy. It may have
21 included lead, and these men were involved in milling
22 and machining the Kirksite to make tooling, or at
23 least some of them were.

24 No. 22, Tobacco, Alcohol, Diet, Occupation,
25 and Carcinoma of the Esophagus, I believe we looked at

1 a wide range of occupational exposures as potential
2 risk factors for esophagus cancer. That may have
3 included lead, arsenic, and cadmium.

4 No. 28, a Case Control Study Of Lung Cancer
5 in Los Angeles County Welders, I remember specifically
6 we looked at the different types of welding that
7 welders were involved in. I know some of them were
8 stainless steel welders, some were mild steel welders,
9 some were aluminum welders. There may have been some
10 cadmium exposure considered in that study.

11 Q. You just mentioned -- I'm sorry, please look at the
12 one about the cadmium and the welding fumes that would
13 be, like I just said, cadmium and welding fumes, not
14 dust, correct?

15 A. Perhaps you could clarify the difference for me
16 between welding fumes and dust; I'm not sure what your
17 question's about.

18 Q. Well, I -- well, is there a difference? I mean,
19 there's -- between cadmium that's in a welding fume
20 and cadmium present in dust particulate matter
21 somewhere?

22 A. Well, it depends on the source of the particulate
23 matter. If it comes from welding fume, there could be
24 some cadmium in it depending on what the person was
25 welding on.

1 Q. Okay, go on to the next one that you were about to
2 move on to.

3 A. I'm looking through them.

4 Q. Okay.

5 A. I'm going to skip around a little bit. No. 108 on
6 page 16, Case Control Study of Pancreas Cancer at the
7 Philadelphia Plant of the Rohm & Haas Corporation.
8 That study involved looking at about 1100 different
9 chemicals that were handled by the employees in that
10 plant. There may well have been some lead, arsenic,
11 or cadmium compounds handled in that plant. That
12 study resulted in a publication that is No. 36 on page
13 12, DDT and Pancreatic Cancer, that was the lead
14 article in the Journal of the National Cancer
15 Institute back in 1993, and I might mention that we
16 found a very strong association between DDT and
17 pancreas cancer, and that study was funded by the
18 chemical company where we did the work, we reported
19 out a finding of a strong cancer risk factor in that
20 plant. There may well have been lead, arsenic, or
21 cadmium compounds among the agents we considered.

22 No. 127 on page 17, a Mortality Study of
23 Transmission and Chassis and Stamping Plant Workers,
24 this was a study we did under contract to the United
25 Auto Workers, Ford Motor Company, National Joint

1 Committee For Health And Safety. I know we
2 investigated potential exposures to lead in that
3 study, and I believe we also looked at cadmium
4 exposures, as well.

5 No. 133, page 18, Carcinogens and Cancer
6 Risks in the Microelectronics Industry, that was a
7 book chapter. I remember that specifically talked
8 about arsenic and arsine.

9 No. 137 on page 18, Arsenic Poisoning, that
10 was a book chapter on the clinical presentation of
11 arsenic poisoning. There's probably some others in
12 among my abstracts, preliminary communications, and
13 panel discussions. Do you want me to continue?
14 Because that will take some time to continue going
15 through them.

16 MR. DANNINGER: Well, Amanda, before you
17 answer that, we just got a note there's only about
18 five minutes left on the tape so --

19 MS. SLEVINSKI: Okay, so we can go ahead
20 and take a break now, and they can switch the tape.

21 MR. DANNINGER: Okay, thanks a lot.

22 VIDEO TECHNICIAN: This marks the end of
23 tape 2. We are now going off the record. The time is
24 now 5:42 and 5 seconds p.m.

25 (Recess taken at 5:42 p.m.)

1 (Back on the record at 5:52 p.m.)

2 VIDEO TECHNICIAN: We are now back on the
3 record. The time is 5:52 and 42 seconds p.m.

4 MS. SLEVINSKI: I'd just like to state for
5 the record that we are going to end for today, and
6 contrary to what this deposition notice said, we will
7 start an hour earlier tomorrow. It will be at nine
8 a.m. until five p.m. tomorrow, June the 8th.

9 MR. DANNINGER: Yep.

10 MS. SLEVINSKI: Same place.

11 MR. DANNINGER: Good deal.

12 THE WITNESS: All right, thank you.

13 MR. PATTERSON: That's central time,
14 Amanda?

15 MS. SLEVINSKI: I'm sorry?

16 MR. DANNINGER: No, that's -- that's
17 eastern time.

18 MR. PATTERSON: Nine a.m. or --

19 MS. SLEVINSKI: Nine a.m. eastern, eight
20 a.m. central time.

21 MR. DANNINGER: Great. Anything else you
22 want to put on the record, Amanda?

23 MS. SLEVINSKI: No.

24 MR. DANNINGER: Okay.

25 VIDEO TECHNICIAN: This concludes today's

1 deposition. We're now going off the record. The time
2 is 5:53 and 30 seconds p.m.

3 (The deposition adjourned at 5:53 p.m.

4 Signature of the witness was requested.)
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1 LENORA PERRINE, et al.,

2 Plaintiffs,

3 vs. Case No. 04-C-296-2

4 E.I. DU PONT NEMOURS AND COMPANY,

5 et al.,

6 _____

7
8 VERIFICATION OF DEPONENT

9
10 I, having read the foregoing deposition
11 consisting of my testimony at the aforementioned time
12 and place, do hereby attest to the correctness and
13 truthfulness of the transcript.

14
15
16 _____
17 DAVID GARABRANT, M.D.

18 Dated:
19
20
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23
24
25

1 CERTIFICATE OF NOTARY

2 STATE OF MICHIGAN)

3) SS

4 COUNTY OF MONROE)

5
6 I, LEISA M. PASTOR, a Notary Public in and
7 for the above county and state, do hereby certify that
8 the above deposition was taken before me at the time
9 and place hereinbefore set forth; that the witness was
10 by me first duly sworn to testify to the truth, and
11 nothing but the truth; that the foregoing questions
12 asked and answers made by the witness were duly
13 recorded by me stenographically and reduced to
14 computer transcription; that this is a true, full and
15 correct transcript of my stenographic notes so taken;
16 and that I am not related to, nor of counsel to either
17 party nor interested in the event of this cause.

18
19
20 _____
21 LEISA M. PASTOR, CSR-3500, CRR

22 Notary Public,

23 Monroe County, Michigan

24 My Commission expires: 9/7/13

25

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