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[Pg. 552 of trial day 3 through day 4 pg. 712]

In the Matter Of:

MELODY LEWIS and ROBERT LEWIS

-v-

BMW CONSTRUCTORS, INC., ET AL.

Trial Day 3

October 17, 2019

1 STATE OF INDIANA)
2 COUNTY OF MARION) SS:

3
4 IN THE MARION COUNTY SUPERIOR COURT
CIVIL DIVISION, ROOM NO. 12

5 MELODY LEWIS and)
6 ROBERT LEWIS,)
7 Plaintiffs,)

8 -v-

) CAUSE NO.
) 49D12-1811-MI-045368

9 BMW CONSTRUCTORS, INC.,)
10 et al.,)
11 Defendants.)

12
13
14 TRANSCRIPT OF TRIAL PROCEEDINGS

15 DAY 3

16 OCTOBER 17, 2019

17 BEFORE THE HONORABLE THERESE A. HANNAH
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19
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21

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1 THE BAILIFF: All rise. 08:30:4

2 THE COURT: Please be seated. 08:30:5

3 Well, good morning and welcome back. This is 08:31:0
4 a good sign. We have everybody here. Today, as I
5 said, we'll begin with opening statements. The
6 Court has allotted each side 90 minutes for
7 opening, and we'll take a break in between, just so
8 you know what our morning will look like. After
9 they've finished opening, we'll break for lunch.

10 So is everybody ready? All right, thank you, 08:31:2
11 we'll begin.

12 MS. FARINAS: Thank you, Your Honor. 08:31:3

13 Good morning, ladies and gentlemen of the 08:31:4
14 jury. I'm Kathy Farinas. I had an opportunity to
15 speak to you all yesterday morning, and I first off
16 want to start by saying thank you. That was a long
17 process, a two-day process. Everybody in this room
18 appreciates your patience and endurance through
19 that whole process. And I'm sorry it took a little
20 bit longer than we anticipated, but we're going to
21 try to efficiently move through this case for you
22 to give you the evidence of the case and to make it
23 understandable for you in the best way that we
24 possibly can.

25 So over the next few weeks, my co-counsel, 08:32:1

1 Nate Finch and Vin Greene, and I will be presenting
2 evidence to you in this case on behalf of Melody
3 Lewis and Robert Lewis, who goes by Chuck. So
4 you're going to see on papers, perhaps even on your
5 juror instructions you got yesterday, that say
6 Robert Lewis. This is Chuck Lewis. And so we are
7 going to do our best efforts to make sure that you
8 understand the case that Melody and Chuck have
9 brought before you and are going to be ultimately
10 asking for you to make a decision in this case.

11 Technology is not my friend, sorry. This is 08:32:5
12 Melody and Chuck. This is probably the first time
13 you're going to get to see a picture of Melody.
14 This is when she was healthy and very happy with
15 Chuck.

16 I think it's important before we get started 08:33:0
17 really diving into who Melody and Chuck Lewis are
18 to talk about the job that you all have been tasked
19 to do. And all of you were carefully selected.
20 You know that there were 75 people in this room,
21 and you are the nine that are here to listen to the
22 case.

23 As Judge Hannah told you yesterday, we all 08:33:2
24 stand up when you enter the courtroom, and that is
25 for a very important purpose. We do this to show

1 you respect and also respect for our legal system
2 and the fact that you are going to be the triers of
3 fact in this case. It's not something to be taken
4 lightly. It's something to be taken very seriously
5 and to do the job that the Court asks you to do.

6 You will be expected to follow the law, and 08:33:5
7 the law in this case isn't coming from myself.
8 It's not coming from my co-counsel. It's not
9 coming from the defendants. It's coming from the
10 bench, from Judge Hannah. And you will be asked to
11 render a verdict in this case after listening to
12 all the evidence over the next two or three weeks
13 and then applying the law that Judge Hannah tells
14 to you apply.

15 So this morning, Mr. Finch and I are going to 08:34:1
16 try and give you a road map. This is going to be a
17 little bit longer of a trial, but like I said,
18 we're going to try to move through it efficiently.
19 So he and I are going to try and lay a road map for
20 you this morning of what we intend to show you in
21 this case.

22 As I said yesterday, Mrs. Lewis is not going 08:34:3
23 to be able to be here. Her cancer has progressed
24 to the point where she is not able to leave the
25 home much, and she wouldn't be able to endure

1 sitting here for the entire trial. So Chuck is
2 here on their behalf. He will not be here through
3 much of the trial either, as he is her primary
4 caretaker. He will be here for his testimony and
5 events like this morning and closing arguments.

6 But Melody and Chuck found each other a little 08:34:5
7 bit later in life. Both of them had had other
8 families before they found each other, and they
9 were married in 2012. And you will hear that they
10 are soulmates. They found each other at the right
11 time, in their retirement, and had big plans for
12 what they were going to do as they both retired and
13 entered some years, their golden years, so to
14 speak.

15 This is Melody's daughter Maci, and Chuck's 08:35:2
16 stepdaughter Maci. She was here yesterday. She
17 had come in from -- she lives in Arizona. She had
18 come in for opening statements that we didn't get
19 to yesterday afternoon. Unfortunately, she had to
20 fly back early this morning for work. But she will
21 also be here to talk to you. And you will hear
22 from Melody via her video testimony that was taken
23 in January and updated last week.

24 In addition, Chuck's going to talk to you 08:35:5
25 about their life. He's also witnessed some of

1 Melody's exposures to what we believe was
2 asbestos-containing baby powder. Maci has been
3 with her mother obviously since birth, and she will
4 testify for you as well about exposures she has
5 witnessed for her mother as well and how this
6 disease is impacting Chuck, her mother, and
7 herself.

8 This is Melody as of last week. Melody, you 08:36:2
9 will hear, we're going to talk about some of her
10 medical condition and what she is going through and
11 what she's been through here in just a few minutes
12 when I get into the medicine side of the case. But
13 this is Melody. Obviously she's changed quite a
14 bit in a short period of time. And you will hear
15 testimony about her medical condition. You're also
16 going to hear from Chuck and Maci, as I said, about
17 how this disease has impacted Melody.

18 The story: The defendants in this case are 08:37:0
19 going to be Kerr dental tape, BMW Constructors, and
20 Johnson & Johnson. And you will hear us refer
21 to -- there's actually two companies, Johnson &
22 Johnson, Inc., and Johnson & Johnson Consumer, Inc.
23 And you will hear us reference them just
24 collectively as Johnson & Johnson throughout the
25 case, so I don't want that to be confusing, but

1 they are essentially the entity that we are going
2 to be talking about, we will reference as Johnson &
3 Johnson.

4 We will show you through the course of this 08:37:3
5 trial that Melody was exposed to asbestos, we
6 believe, through actions or inactions of these
7 companies.

8 The concept that's going to be important for 08:37:3
9 you to grasp, and we talked about this a bit
10 yesterday, is that in the eyes of the law,
11 corporations are seen as people. If a person
12 recklessly or carelessly hurts somebody, they're
13 responsible. If a person isn't truthful and
14 somebody else is hurt because of the untruths that
15 they're either covering or saying, then they are
16 responsible for the injury to that person.
17 Companies are the same.

18 We all understand that corporations exist to 08:38:1
19 make a profit. That's our capitalistic system that
20 we live in here in the United States. We're not
21 here to tell you there's anything wrong with that.
22 But it is inappropriate to manufacture and sell
23 products that are dangerous to make money if you're
24 not going to warn the public or the consumers about
25 the dangers of that product. And I want you to

1 think about things like Drano. When we all buy a
2 bottle of Drano to unclog a sink, there's warning
3 labels on the back of that as to how you should use
4 it, how you shouldn't use it, if you get it in your
5 eye, do this. Baby cribs, baby strollers, baby
6 seats, those kinds of things all come with
7 instructions and warnings to make sure that people
8 know of the dangers if they're not properly used.

9 So we're not here to say that you can't even 08:39:0
10 sell a dangerous product. I think Drano is kind of
11 dangerous. It's not something you would drink or
12 ingest. But what we're here to say is that if
13 you're going to sell a product to the public to
14 make a profit, that you also have to abide by the
15 rules that say you have to adequately warn the
16 people who are going to be the end users of those
17 products.

18 If the danger is hidden, if the danger is 08:39:2
19 invisible, if it's deadly, you need to make the
20 public aware of that.

21 I'm going to show you some examples of some 08:39:3
22 things that we automatically think of. When we see
23 a railroad crossing, everybody knows that there's a
24 potential train could come through there and we
25 need to drive our cars or walk carefully.

1 Everybody knows this one, Mr. Yuck warns us 08:39:4
2 that there is a danger of poison and tells us who
3 to call if we ingest something we shouldn't.

4 Skull and cross bones, probably the most 08:39:5
5 common or relatable danger sign.

6 Danger -- or warnings have to be something 08:40:0
7 that the public can understand. It can't be a in
8 minuscule print and hidden on the bottom of a box
9 or a bottle. They need to be visible. They need
10 to be understandable. You need to be able to tell
11 people how to protect themselves if you know you're
12 putting something into the stream of commerce that
13 could be dangerous.

14 And just because a company chooses to put 08:40:2
15 asbestos in their product doesn't mean that they
16 did anything wrong if they properly warned and told
17 people how to protect themselves or how to use it.

18 Same holds true if they thought there was a 08:40:4
19 possibility that asbestos could be in their
20 product. If they had adequate information to
21 inform them that there is a potential that asbestos
22 is in your product, you need to let the
23 companies -- or the company needs to let the
24 consumers know that there is a potential our
25 product could have something in it that could be

1 dangerous to your health, and it's then putting a
2 warning on it that gives the consumers a choice.
3 It gives us an informed choice to either use that
4 product or not, or if we're going to use it, use
5 certain precautions to protect ourselves.

6 For example, if there is a product that has a 08:41:2
7 known asbestos content and it's put into the stream
8 of commerce, if there is a warning on it, then
9 somebody could potentially take a precaution such
10 as wearing a mask or a respirator if they have to
11 use it.

12 With respect to the defendants Johnson & 08:41:4
13 Johnson and Kerr Corporation, we will show that the
14 products that they -- we believe Melody was exposed
15 to and that they manufactured and sold contained
16 asbestos and neither one of these companies put
17 warnings on their products to inform Melody Lewis
18 that she was being exposed to asbestos.

19 In addition to putting warnings on products, 08:42:1
20 we as consumers are expected to be able to believe
21 that the products that we are buying are free of
22 manufacturing defects. And what a manufacturing
23 defect is is that if you know that your product was
24 never supposed to contain a certain chemical or
25 element, then you have a duty to manufacture a

1 product that is free of contaminants.

2 Classic example of this kind of thing is a 08:42:4
3 mouse in a Coke or something like that. It's not
4 supposed to be there. And that's kind of a gross
5 example. I saw some faces. But with respect to
6 Johnson's baby powder, it was never a product
7 ingredient that Johnson & Johnson specified
8 asbestos for its baby powder. It is a product
9 defect. It was a defect that we will show you they
10 knew about, that it was in their product, and they
11 did not then warn the consumers.

12 You will see evidence that J & J had the 08:43:1
13 ability, instead of selling this baby powder, they
14 could have easily sold this baby powder. It's
15 cornstarch. There was never a need to continue to
16 put talc that was contaminated with asbestos in a
17 product that was sold to the public. This was the
18 alternative. This was the answer, and it was right
19 in front of them.

20 Another defendant in the case is BMW 08:43:3
21 Constructors. BMW occasionally performed worked at
22 Melody's place of work where she worked for
23 numerous years. There was a time period, a short
24 time period, where we have testimony from Melody
25 that BMW Constructors was present performing work

1 on some piping and equipment that was in her work
2 area, and we believe that their failure to use good
3 judgment and reasonable care caused Melody to also
4 be exposed to some limited amounts of asbestos at
5 her job.

6 And those are the reasons these three 08:44:1
7 defendants are here, and we ask you to hold them to
8 the same standards you would hold a person. If a
9 person was irresponsible and did these things, they
10 would be held liable. We ask you to do the same
11 for the corporations.

12 I want to tell you the medical story here. 08:44:3
13 Ironically, there are some things in this case that
14 are not going to be in dispute. The one thing that
15 we all can agree on is Melody Lewis has
16 mesothelioma. You will not hear any evidence that
17 there is some other exposure to a chemical or
18 something of that nature that caused her
19 mesothelioma. As discussed yesterday, we all
20 agree, smoking does not cause mesothelioma.
21 Somebody could have smoked four packs a day for
22 50 years and not get this disease.

23 It's important that you understand that 08:45:1
24 mesothelioma is not lung cancer. It's commonly
25 misperceived as lung cancer. Pleural mesothelioma

1 is a cancer that grows on the lining of our lungs.
2 We have a very thin lining called our pleura, and
3 you're going to hear this from experts in the case.
4 It's almost like a piece of Saran wrap that
5 surrounds our lungs, and it allows our lungs to
6 move against our ribcage and our diaphragm when we
7 breathe. The cancer that Melody has attacks this
8 pleural lining and constricts her breathing.

9 It also is not curable. There is no known
10 present cure for mesothelioma. It is a death
11 sentence, unfortunately. It is something that we
12 all can agree will take her life, and typically it
13 does that between a year and 18 months from
14 diagnosis.

15 The other issue that I think is important and
16 you will hear about from our experts is that
17 mesothelioma is caused from asbestos exposures that
18 occurred quite a while ago. And there's a period
19 called the latency period here, and that is the
20 time from exposure to the time somebody is
21 diagnosed. And that latency period with asbestos
22 can be a minimum of ten years, up to 50, 60, 70
23 years. It goes far back in time. And what you'll
24 hear is it's the body's inability finally to not be
25 able to kill off these cells that are impacted by

08:45:5

08:46:2

1 asbestos. And when that ability ends, the cancer
2 takes over.

3 Mesothelioma is what they also call a
4 signature disease for asbestos exposure. When
5 someone is diagnosed with mesothelioma, the first
6 question doctors often ask them is, how were you
7 exposed to asbestos, what ways or methods do you
8 believe you were exposed to asbestos, because
9 the -- it is a signature disease, meaning it is the
10 disease that will appear when people have been
11 diagnosed with -- or have been exposed to asbestos.

12 It's also a disease that's so insidious that
13 it's eating away at Melody's body. The medical
14 evidence in this case will show that her disease
15 has spread. It is right now not under control.
16 She has at least six tumors that are pressing on
17 nerves and bones in her body. She wears a pain
18 patch 24 hours a day to control that pain. This
19 caused her to lose over 30 pounds just since
20 January and about 50 pounds since her diagnosis.
21 She's endured six rounds of initial chemotherapy
22 earlier this year and is presently between her
23 fourth and fifth rounds of her second cycle of
24 chemotherapy right now. There are two tumors they
25 can't get to respond to the chemotherapy, and so

1 she's recently completed rounds of radiation on
2 those two tumors in an attempt to slow their
3 growth.

4 Her weeks are made up of treatments, 08:48:3
5 medications, fatigue, nausea, pain, and she fights
6 to do it all over again the next week. She won't
7 quit. She is a fighter, and you will hear that.

8 Somebody yesterday wanted proof, proof that 08:48:5
9 Melody Lewis has mesothelioma. This is the path
10 report from her diagnosis when she had a biopsy
11 taken in July of 2018. Melody's passed that
12 one-year mark.

13 As I said as well, it's a signature disease, 08:49:1
14 so Melody, when seeing a doctor, was asked, how
15 were you exposed to asbestos, "She worked for a
16 dentist who used asbestos tape and we question
17 exposure to asbestos from baby powder."

18 With a signature disease like mesothelioma, 08:49:3
19 doctors immediately start looking for how this
20 person was exposed. So I want to tell you the
21 story of these ways that we believe Melody was
22 exposed to asbestos.

23 When Melody Lewis was in high school, her last 08:49:5
24 year, her senior year, she started in sort of a
25 work program where she would go out and potentially

1 work for an individual in the community that she
2 thought she might want to be that one day. So she
3 went to a dentist office and began working for a
4 dentist.

5 This is the Kerr strip asbestos tape. There's
6 not going to be a dispute this product has
7 asbestos. It's right on the box. Melody would cut
8 this into three-inch strips to prepare for the
9 dentist in different trays that he would use in his
10 laboratory to make crowns and bridges and things
11 like that. There was a little oven, so to speak,
12 or a kiln-type device where then the dentist would
13 come in and use that tape to put into the tray and
14 make those molds. And so Melody's job was to take
15 this out of a cabinet, cut it into three-inch
16 strips, as many as needed for each tray for the
17 dentist so he could come in and immediately start
18 making the molds for the types of dental pieces for
19 his patients.

20 Melody would then clean up. When you cut
21 this, it frays, so she would clean up the area
22 after she would get finished preparing the dentist
23 trays. She worked with this product while she was
24 still in high school, and then she continued to
25 work there after she left high school until she got

1 a different job.

2 It is undisputed, like I said, that it has 08:51:2
3 asbestos. The other thing you're going to hear,
4 it's also undisputed, this box never had a warning.
5 Never had a warning that asbestos was dangerous.
6 And as someone in high school in the 1960s, Melody
7 had no idea that asbestos was dangerous.

8 You heard us talk a lot about baby powder. 08:51:5
9 And in addition, it is undisputed that Melody Lewis
10 used baby powder for over 50 years every day of her
11 life, sometimes more than once a day. If she were
12 to shower twice in a day due to some activity that
13 got her sweaty or dirty, Melody would apply lotion
14 and then apply the baby powder. This is what she
15 was taught to do when she was a young girl and
16 continued to do it up until the day she was
17 diagnosed with mesothelioma with the Johnson's baby
18 powder.

19 Melody has -- it's kind of a coveted thing, 08:52:3
20 and I'm actually kind of scared to pick it up in
21 the event I might drop it. Melody was gifted this
22 crystal box because she had used the baby powder so
23 much. The powder sits in the bottom. This does
24 not contain Johnson's baby powder at this point in
25 time, this is a cornstarch powder. But she would

1 use this puff to apply it to her body every day
2 since she was a young lady.

3 In addition, she used it on her children, like 08:53:0
4 many people do. She had two daughters, both of
5 them she used it on until they were approximately
6 two, two and a half.

7 And the other thing is, you'll hear, Melody 08:53:1
8 hates socks. She doesn't like socks. So she would
9 use baby powder in her shoes to keep them from
10 rubbing or slipping or getting sweaty or sticky.
11 And so Melody would use the baby powder also in her
12 shoes in lieu of socks.

13 There's no dispute that Melody Lewis used this 08:53:3
14 baby powder. What Johnson & Johnson, you will
15 hear, disputes is that asbestos was in their baby
16 powder. But what you won't hear is anybody saying
17 Melody didn't use this product. That is for sure.
18 The other thing you will hear that is not disputed
19 is Johnson & Johnson never placed a warning on this
20 product, even if they thought their product could
21 contain asbestos. There has never been a warning
22 on the baby powder.

23 Finally, BMW Constructors, we talked briefly 08:54:0
24 with them. Nobody is going to dispute Melody's
25 testimony that she was present when these workers

1 were around. You might hear argument that they
2 don't think it was sufficient or they don't think
3 it was enough exposure. But one thing you will not
4 hear disputed is that they never warned Melody or
5 the other people working next to her that there was
6 potential that they were disturbing asbestos. So
7 again, not telling. Not warning. Hiding that
8 information.

9 We talked a little bit about this yesterday, 08:54:4
10 and I want to stress that, as I said earlier, I'm
11 not the individual who will tell you the law or
12 instruct you on the law. But today I want to tell
13 you what I think the law is going to ask you to do.
14 Judge Hannah will always instruct you on the law.

15 You've been told in your instructions already 08:55:0
16 that you were given yesterday that we have the duty
17 to show you our case, to prove to you our case by
18 the greater weight of the evidence. Greater weight
19 of the evidence is something that convinces you
20 more strongly of its truthfulness. It convinces
21 you that something is more probably true than not.
22 That's what we are expected to do. That's what
23 Mr. Finch, Mr. Greene, and I are going to attempt
24 to do in this case.

25 And we will present you evidence to show you 08:55:3

1 that Melody Lewis has mesothelioma, as you've seen.
2 We will present evidence that shows you that
3 asbestos fibers in these products helped to cause
4 her disease. We will prove to you that it is more
5 probably true than not that Melody's disease came
6 from these sources. We do not have to prove to you
7 this by a reasonable doubt or the CSI standard that
8 you see on TV. It is the greater weight of the
9 evidence.

10 And similarly, the judge will instruct you 08:56:1
11 about a reasonable cause. Reasonable cause is not
12 the only cause. We are not asking you to pick from
13 these three and find the responsible party. The
14 law is that there can be more than one responsible
15 cause. You will hear testimony in this case from
16 the doctors who will say that asbestos exposure is
17 a cumulative issue, that we can't get into Melody's
18 body and pull out a fiber and say, this fiber came
19 from this company, this fiber came from this
20 company. But what you can do is use common sense.
21 You're not asked to leave that at the courthouse
22 doors when you walk in here. You use common sense
23 and find that there can be more than one
24 responsible cause, a cumulative effect of various
25 exposures to asbestos caused Melody's disease.

1 I'm going to give you some examples of that. 08:57:0
2 These are three potential pollutant companies. And
3 this is a healthy fish in a pond. This company is
4 dumping some sort of chemical in and the fish is
5 starting to get a little sick. Company 2 pollutes
6 the pond. Company 3 pollutes the pond. We have
7 three entities contributing to the disease in this
8 fish and we can't separate them out. And so that
9 is why the law stands for the proposition that
10 there can be more than one responsible cause. And
11 at the end of this case, we're going to ask you to
12 determine if you believe that the defendants in
13 this case are one of these responsible causes.

14 Another one that, instead of a hypothetical 08:57:5
15 fish, here's a pileup, right, and trying to figure
16 out who caused this or were there more than one
17 cause, did two people or three people not pay
18 attention, were on their cell phones, were texting,
19 doing whatever to cause this accident. Again,
20 multiple responsible causes can combine to create
21 an injury.

22 And I believe with that, I would like to thank 08:58:3
23 you for your time, and I'm going to pass the rest
24 of our time to Mr. Finch to explain the rest of the
25 case to you. Thank you.

1 MR. FINCH: May it please this honorable 08:58:5
2 Court, counsel for defendants, Mr. Lewis.

3 My name is Nate Finch, and it is my great 08:59:0
4 privilege and honor to represent Chuck and Melody.
5 I didn't get a chance to talk to you before. A
6 couple things you might want to know about me. I
7 grew up in central Virginia. You might be
8 wondering why my eye is watering and red. I was a
9 track runner and a lifeguard in college. I spent a
10 lot of time out in the sun without sunglasses all
11 the time, and it sometimes make my eye red, so I
12 apologize. I'm not trying to wear a Halloween
13 costume, and I'm not, you know, having any kind of
14 scratch on my eye. It's just sometimes it gets
15 red, and I hope you don't get distracted by that.

16 I grew up in Virginia. I live with my wife 08:59:4
17 and our two children in Maryland right outside of
18 Washington, D.C. My kids, they're teenagers, they
19 call me Dad or Daddy, and my wife calls me Nate
20 even though my name is Nathan because my track
21 coach in college decided to call me Nate because he
22 didn't want to learn the name of a new person. He
23 had had somebody he coached before was named Nate.

24 So I'm going to talk to you about three 09:00:0
25 things. I'm going to talk to you about the hazards

1 of asbestos, what is it, how dangerous is it. I'm
2 going to explain to you who knew what, when, what
3 did people know, what did Johnson & Johnson know,
4 what did the scientific community know, what did
5 they know about the hazards of asbestos, and what
6 did they do with that knowledge or fail to do with
7 that knowledge. And finally, I'm going to outline
8 for you what I think some of the defenses you're
9 going to hear in the case are and what the evidence
10 will show about that.

11 So asbestos ultimately is a mineral. It's put 09:00:4
12 in the ground by God. It's been in the crust of
13 the earth, and it was man that figured out over a
14 hundred years ago you could dig it out of the
15 ground and put it into a lot of useful products.
16 It's gone into brakes. It's gone into insulation.
17 The World Trade Center was insulated with asbestos
18 that came from Libby, Montana. It's in floor
19 tiles. It's in dental tape, or was in dental tape.
20 It's in gaskets and joint compounds, a lot of
21 useful products.

22 The problem is that asbestos is dangerous. 09:01:2
23 It's very dangerous. It's dangerous in part
24 because it's so tiny. You could fit a billion
25 asbestos fibers in this thimble. An individual

1 asbestos fiber is no more than a couple of microns
2 long, which is a tiny -- one-one-thousandth of a
3 millimeter. If you think about a millimeter, it's
4 like the thickness of a hair. You can't see an
5 asbestos fiber. You can't even see a million
6 asbestos fibers. If you put a billion asbestos
7 fibers, you know, you crunch them together, it
8 would fill up this thimble.

9 It's also a known carcinogen. The
10 International Agency for Research on Cancer, or
11 IARC, has called asbestos a carcinogen ever since
12 IARC was created back in the early '70s. But it's
13 been known that asbestos is a carcinogen for far
14 longer than that, and I'll tell you about that in a
15 minute.

16 Another thing that makes asbestos so dangerous
17 is it doesn't have what we call onion properties.
18 You know if you're cutting an onion, slicing an
19 onion, and when you slice an onion, your eyes might
20 get red like mine and water. You might sniff a
21 little bit. You might -- even if you're not
22 allergic to the onion, you're going to know there's
23 something about the onion in the air that is doing
24 something to your body.

25 Asbestos, you don't know you're inhaling it.

09:02:1

09:02:2

09:02:5

1 You don't know you're breathing it. It doesn't
2 cause any adverse reaction immediately. You can be
3 exposed to a ton of asbestos and not know it. You
4 can be exposed to over a million fibers and not
5 even be able to see it in the air. There's no way
6 to see it or smell it or taste it or know that
7 you're being exposed to it. And that's why it is
8 so important to warn people of the hazards of it.

9 So with all these manmade asbestos-containing
10 products, there are manmade diseases. There are
11 two kinds of what's called nonmalignant diseases.
12 Asbestosis, is a scarring of the lungs that can be
13 fatal. Pleural plaque is a scarring on the pleura
14 of the lungs, which is the lining around the lungs,
15 which is the same place that mesothelioma occurs.
16 Pleural plaques can be -- usually is not fatal.
17 It's usually more of a marker of asbestos exposure,
18 but not everyone who is exposed to asbestos has
19 asbestosis or pleural plaques.

20 It also causes two different kinds of cancer.
21 It causes lung cancer, which is the same kind of
22 cancer you get if you smoke a lot of cigarettes.
23 But asbestos combined with cigarette smoking is
24 like throwing gasoline on a fire. It makes -- for
25 lung cancer at least, asbestos makes smoking much

09:03:2

09:04:0

1 worse. For pleural mesothelioma, asbestos is
2 called a signature disease of pleural mesothelioma.
3 It's been known as a signature disease.
4 Mesothelioma is a signature disease of asbestos
5 exposure. It's been known that since 1960.

6 Pleural mesothelioma, like I said before and 09:04:4
7 as Kathy pointed out, is a cancer of the lining
8 around the lung. Not the tissue in the lung.
9 Every doctor who's going to testify in this case on
10 both sides agrees, smoking does not cause
11 mesothelioma.

12 But the thing about mesothelioma is it's the 09:05:0
13 worst disease, one of the worst cancers known to
14 man. I hate to say in front of Chuck, but it's --
15 Melody's not going to survive this. It is -- you
16 know, you hear from doctors, what's the five-year
17 survival rate for various kinds of cancers. For
18 mesothelioma, the five-year survival rate is
19 1 percent. And most people die within a year or
20 two of developing it, and they die a very horrible,
21 painful death, because what literally happens is
22 the cancer creates this rind around your lungs and
23 it squeezes your lungs, and you can't breathe
24 anymore. It's a truly horrible way to die. There
25 will be no dispute from any of the defendants about

1 that.

2 The other thing that's terrible about 09:05:5
3 mesothelioma, it's the worst disease, but it's
4 caused by the least amount of asbestos exposure.
5 One day of asbestos exposure has been demonstrated
6 to cause mesothelioma in the medical and scientific
7 literature.

8 Asbestos fibers are so tiny, they are 09:06:0
9 microscopic. They get into the breathing system
10 and they get out to the pleura of the lungs.
11 There's five different types of asbestos fibers
12 that you may hear about in this case. There is
13 amosite and crocidolite and chrysotile, which were
14 intentionally added to many types of products.
15 Chrysotile was in something like 95 to 98 percent
16 of the asbestos products ever made, including
17 Kerr's dental tape.

18 Then there are what's called the asbestos 09:06:4
19 contaminant minerals, which is actinolite and
20 tremolite and anthophyllite. Those typically
21 aren't intended to be in products, but they can be
22 contaminants. Tremolite is a well-known
23 contaminant in chrysotile asbestos. It's also a
24 well-known contaminant of talc. Anthophyllite
25 asbestos is a well-known contaminant of talc.

1 All of these asbestos fibers can be deadly if 09:07:0
2 inhaled. All of these scientific agencies all
3 around the world, the Occupational Safety and
4 Health Administration has said there's no safe
5 level of asbestos exposure. There are 10,000
6 articles in the medical literature. They've looked
7 and looked and looked for what is the lowest level
8 you can get to to find a safe level of asbestos
9 exposure, and OSHA says, we'll permit a certain
10 amount of asbestos exposure because it will keep
11 people from getting disease asbestosis. But even
12 at the permissible exposure limit, people are still
13 going to get mesothelioma. Our government doesn't
14 protect us from everything. You're allowed to go
15 out and drive 55 miles an hour on the highway, but
16 we know people are going to get hurt doing that.

17 But there is no safe level of asbestos 09:07:4
18 exposure. The National Institute for Occupational
19 Safety and Health has stated that. I told you
20 about IARC, the International Agency for Research
21 on Cancer. Again, no safe level of exposure to
22 asbestos. The U.S. Surgeon General has said that.
23 The National Cancer Institute, the World Health
24 Organization, the United States EPA, even the EPA
25 today still states there is no safe level of

1 exposure to asbestos. And the British Thoracic
2 Society.

3 This isn't scientific organizations or 09:08:2
4 regulatory bodies just being overly cautious or
5 overly safe. There is medical literature that
6 shows a few hours of asbestos exposure has caused
7 mesothelioma in some people. Luckily it's a rare
8 disease. It's a huge risk for a tiny percentage of
9 the people who were exposed to it. Maybe 3,000
10 people total in the United States will develop
11 mesothelioma from past asbestos exposure. But if
12 there is mesothelioma, it's almost certainly an
13 asbestos exposure that was a cause of it.

14 Johnson & Johnson outside the courtroom agrees 09:08:5
15 and knows that there is no known safe level of
16 asbestos exposure when it comes to the disease
17 mesothelioma. They have put out literature to that
18 effect, I don't think -- they may bring doctors in
19 here to testify that might dispute that, but in the
20 real world, outside the courtroom, they agree,
21 there is no safe level of asbestos exposure.

22 Kerr, by contrast, will say, we didn't know 09:09:2
23 asbestos was bad. We didn't know it was bad when
24 Melody was working with it in the 1960s. I think
25 you're going to have to listen to the evidence, and

1 whether it was known or knowable, I find that hard
2 to believe, but we'll let them tell their story.

3 Johnson & Johnson agrees that any amount of 09:09:4
4 asbestos in baby powder is a health risk. Their
5 position in the courtroom may be different, but
6 their position is there has never been asbestos in
7 baby powder, not one fiber ever, ever, ever, from
8 beginning of time, ever, never one single asbestos
9 fiber. That's what their position is. I think
10 that the evidence is going to be different than
11 that.

12 So in its most recent publication on causes of 09:10:0
13 mesothelioma and asbestos-related disease -- and
14 this came out seven years ago. And I told you IARC
15 has been calling asbestos a carcinogen since it was
16 first created. One of the very first chemicals
17 they said was a carcinogen was asbestos in the
18 early '70s. Scientists and doctors have known that
19 asbestos caused cancer for 30 years before that,
20 but IARC wasn't even created until the late '60s.
21 It said asbestos fibers cause mesothelioma and talc
22 that contains asbestos fibers, asbestiform fibers,
23 causes mesothelioma.

24 One of the very first witnesses, one of the 09:10:4
25 first or second witnesses you'll hear from is

1 Arnold Brody. Arnold Brody is not going to talk to
2 you about the specifics of Melody's case and
3 Melody's disease. He is a cell biologist who has
4 for 40 years gotten funding from the government to
5 study the causes of cancer at the molecular and
6 biological level, and he has studied asbestos.
7 He's got over 150 peer-reviewed papers in the
8 literature, many of them having to do with
9 asbestos. He's been funded repeatedly by the
10 National Institutes of Health. And I think you
11 will enjoy learning from him about how it is that
12 asbestos fibers cause cancer and disease.

13 This is a picture that Dr. Brody has that 09:11:2
14 shows a chrysotile asbestos fiber, a single fiber,
15 causing the genetic damage to a cell. And
16 ultimately that genetic damage leads to other
17 genetic damages, which can ultimately, through an
18 unbroken chain of events, lead to mesothelioma in a
19 person.

20 The way cancer works is the damage occurs, 09:11:5
21 then you might get exposed to another fiber of
22 asbestos and more damage occurs. And then over
23 time, at some point a tumor develops. Usually a
24 tumor develops maybe 15 years before it's
25 detectable in a human being. So the last 15 years,

1 if you're exposed to asbestos before you're
2 diagnosed with mesothelioma, usually you don't
3 really contribute to the disease. But any exposure
4 that happened more than 15 years ago, you'll hear
5 from Melody when you hear her by video, she started
6 using -- she worked with Kerr dental tape in the
7 mid '60s, and she started using baby powder in
8 the -- around the same time frame. And you'll hear
9 that those exposures, long ago, can add up and
10 cause mesothelioma.

11 So all the asbestos fibers are toxic. I 09:12:4
12 showed you the picture of the fiber types. They
13 all can damage chromosomes. They can all cause
14 cancer. They can all get to the parts of the lung
15 where mesothelioma occurs. They can all interfere
16 with your cancer defense mechanisms. I don't think
17 you'll hear a lot of dispute about that.

18 But what you may be thinking is, you know, 09:13:0
19 Mr. Finch, you're telling us about what -- how bad
20 asbestos it. I mean, it's clearly one of the most
21 dangerous minerals and chemicals ever known to man.
22 But is it really fair to judge their conduct based
23 on what we know today? And you know what, you're
24 exactly right. I'm not asking you to judge their
25 conduct based on what we know about asbestos today.

1 I'm not asking you to do that at all.

2 When I was a kid, you remember the Back to the 09:13:3
3 Future movies, the time machine, the DeLorean that
4 you could get into and take you back into the
5 1950s? I'd like us to hop in this time machine and
6 go back into the last century, but not to the last
7 century meaning the 20th century. I want to go
8 back all the way to 1898. In 1898, there was a
9 British Inspector of Factories publication that
10 stated asbestos is harmful.

11 By 1924, the medical and scientific community 09:14:0
12 had concluded that asbestosis was a disease caused
13 by asbestos exposure and that asbestosis could be
14 fatal.

15 In 1930, there was a big, what's called 09:14:2
16 epidemiology study, to study a population of
17 people, not just a medical report, where they
18 studied a group of people, stated clearly that
19 breathing asbestos can cause fatal disease, that a
20 key to preventing at least asbestosis is to reduce
21 the amount of asbestos exposure hopefully to zero
22 and to educate the workers about the potential
23 dangers. That's been known since the 1930s.
24 That's just a basic good industrial hygiene
25 practice is always tell the people that might be

1 exposed to something dangerous that there's a
2 danger out there.

3 In the 1940s and 1950s, the scientific 09:15:0
4 community figured out that asbestos causes lung
5 cancer. Once something is a carcinogen, then there
6 isn't a safe level of exposure to it. And this
7 wasn't hidden in some drawer somewhere. This was
8 in the journal of the American Medical Association.
9 The same doctor who proved the linking between
10 cigarette smoking and lung cancer in the same year,
11 Dr. Sir Richard Doll, proved that asbestos caused
12 lung cancer. So this was 11, 12 years before
13 Melody Lewis ever came in contact with Kerr dental
14 tape. It was known to anybody who could go to the
15 library and look that asbestos caused cancer.

16 Now, you have to have some kind of -- I 09:15:4
17 wouldn't expect a ten-year-old or 12-year-old or
18 high school kid to be able to figure that out, but
19 certainly a corporation which has any kind of
20 researchers should know that and figure that out.
21 Johnson & Johnson clearly knew that.

22 By 1960, the disease mesothelioma, the 09:16:0
23 specific disease that Melody has, was linked
24 conclusively to asbestos exposure. It was a big
25 study out of South Africa, 33 patients with

1 asbestos exposure, ranging from just washing their
2 husband's clothes to living a few miles away from
3 an asbestos mine.

4 And in 1964, this gentleman, Irving Selikoff, 09:16:2
5 you'll hear a lot about him, he was a famous
6 researcher in New York City, Mount Sinai School of
7 Medicine, put out -- put together a big conference
8 where doctors from all over the world came
9 together. It was held in New York City, it was
10 widely publicized in the papers. This is a reprint
11 of that book. This book was published in 1965.
12 This is a reprint from a few years later. But all
13 these scientific doctors and medical researchers
14 came together and said that asbestos caused
15 mesothelioma, there's no safe level of exposure to
16 it, it's harmful, and people should be aware of
17 this.

18 And specifically there's a chapter in here -- 09:17:1
19 this book was published in 1965; the conference
20 article was published in '64 -- that talked about
21 how asbestos cancer hazards could be applicable to
22 dental technicians, laboratory technicians.
23 "Asbestosis and asbestos cancer hazards related to
24 an inhalatory exposure to asbestos exists not only
25 for asbestos workers proper, engaged in the direct

1 and regular production, processing, handling, and
2 using of asbestos-containing materials, but also
3 for a large number of individuals who may sustain
4 such contacts on an incidental basis. Such persons
5 may be employed permanently or temporarily in or
6 near operations where asbestos and asbestos
7 products are produced or handled and where they
8 inhale, therefore, air polluted with asbestos
9 dust."

10 And they have a list of people that are at 09:18:1
11 risk in that. One of them includes laboratory
12 technicians, like Melody Lewis who was a part-time
13 lab technician in a dental lab. 1964.

14 So Kerr strip asbestos tape. Kerr Corporation 09:18:2
15 has been around for over a hundred years.
16 Throughout its history it sold dental products.
17 Like Kathy said, there's no dispute that it sold a
18 product called Kerr strip asbestos that was used to
19 help make crown moldings in a process called the
20 cristobalite technique. In contrast to Johnson &
21 Johnson, Kerr doesn't deny that there's asbestos in
22 the dental tape. They just say that there wasn't
23 enough asbestos to cause disease or that they
24 didn't know asbestos was hazardous when they were
25 putting -- selling this to the market.

1 They never researched the health hazards of
2 asbestos before selling this product. They never
3 tested how many asbestos fibers would get in the
4 air if you handled or cut or just touched a piece
5 of asbestos dental tape. They never did any
6 testing like that at any time that would have done
7 Melody any good. And they never warned about the
8 cancer hazard from asbestos. You would think that
9 two years after this big well-publicized conference
10 in New York in 1964 that any company in the world
11 that sold something with asbestos in it would have
12 given people the choice to warn themselves. I
13 mean, baseball tickets have had warnings on the
14 back for 50 or 60 years. How many people get hit
15 with a foul ball? Every ticket you ever buy to any
16 baseball game, from the '50s on, has a warning. So
17 I believe the evidence will show that Kerr never
18 put a warning on its asbestos dental tape. We
19 believe that's negligent conduct, ladies and
20 gentlemen, and that's what the evidence will show.

21 Kerr may defend itself with a variety of
22 arguments. They may say, well, Melody's
23 mesothelioma wasn't caused by asbestos. It was
24 idiopathic; we don't know what caused it. I think
25 the evidence will be that for treating doctors who

1 were asking about asbestos exposure and the
2 pathologist who looked at her tissue certainly will
3 conclude that it was asbestos that caused it.

4 They may argue that, well, chrysotile is like 09:20:5
5 asbestos light, it's not as dangerous as the
6 amphibole asbestos. You remember I showed you the
7 five different types of asbestos. The one
8 chrysotile was the one that went into 95 percent of
9 the products. Sometimes companies that make
10 products that are primarily chrysotile or only
11 chrysotile will say, well, chrysotile is asbestos
12 light, it doesn't cause mesothelioma or it can only
13 cause mesothelioma at hugely high doses. Well, the
14 fact of the matter is, the scientific agencies
15 around the world don't agree with that, and I think
16 that even their experts will concede that there's
17 no safe level of exposure to asbestos, even for
18 chrysotile.

19 They may say, well -- there's something called 09:21:3
20 a threshold limit value, or a TLV. There was not
21 enough asbestos to reach this threshold limit
22 value. The fact of the matter is, they never
23 tested the tape to see how much it was. And like I
24 said, there's no safe level when it comes to
25 asbestos and it comes to cancer.

1 TLV, I think the way TLV or permissible 09:21:5
2 exposure limit, if there is really such a thing,
3 you put it right there on the bottle. I had a
4 little bit of a cough yesterday and so I took
5 Robitussin. And on the bottle, it says you can
6 have this much Robitussin, if you're an adult, you
7 can have one of these; if you're a kid, you can
8 have half. That's a real threshold limit value.
9 This is exactly how much. It's been tested, we
10 know how much you can take and not be harmed. But
11 there's never been a threshold limit value that
12 says some doctor says this is how much asbestos is
13 safe for you. You may hear that argument.

14 You may hear an argument that there are no 09:22:3
15 asbestos markers in the lungs, meaning there's no
16 asbestosis or pleural plaques. And both their
17 expert and our expert, who is a doctor named
18 Richard Kradin, who is one of the foremost experts
19 in the world on asbestos disease. He is not only a
20 pathologist, he's a pulmonologist. He wrote this
21 textbook on pulmonary pathology that deals with,
22 among other things, mesothelioma. He's published
23 multiple peer-reviewed articles specific to
24 asbestos disease.

25 And he will tell you this idea that chrysotile 09:23:0

1 is safe, that there's a safe level of exposure to
2 asbestos or that some kind of asbestos exposure
3 doesn't count or doesn't cause mesothelioma is
4 just -- I don't know how he would say it in the
5 courtroom, but in the real world, he'd say that's
6 hogwash. So he will demonstrate to you that this
7 mesothelioma is asbestos-related and the asbestos
8 exposures that Melody experienced were causes of
9 her mesothelioma.

10 They may take the argument, either Johnson &
11 Johnson or Kerr, that, well, there's never been an
12 epidemiology study of asbestos dental tape. And
13 what that means is they've never taken up --
14 they've never gone out and found enough people who
15 used asbestos dental tape and exposed them to
16 asbestos in the tape and followed them up. They
17 said, well, there's no study specific to that.

18 Well, the fact of the matter is, there's been
19 3,000 products that had asbestos in it. You don't
20 need an epidemiology study to know, once you know
21 there's asbestos in the product, to know that that
22 product that has asbestos in it is dangerous. It's
23 like saying with a cupcake, if you know that
24 there's rat poison in the cupcake, you don't need a
25 study of rat poison in a cookie or rat poison in a

09:23:4

09:24:0

1 doughnut or rat poison in a -- any other kind of
2 food to know that it's dangerous.

3 I'm sure that the defendants will blame
4 Melody's employer, Delco Electronics, for not
5 protecting her from asbestos. It's possible there
6 may have been incidental asbestos exposure that we
7 don't know about, but that doesn't mean that the
8 others are off the hook. You will hear that there
9 wasn't any kind of identifiable asbestos exposure
10 for Melody other than what we are talking about
11 here in the court. There may be other places where
12 people were working with asbestos in and around
13 Delco, but, you know, while asbestos can travel
14 some distance in the air, it can't travel from this
15 room to the next unless there's somebody actively
16 disturbing it. So we're not saying that there's no
17 possibility she might have breathed some asbestos
18 fibers at Delco. What we're saying is that their
19 asbestos exposures were causes too.

20 And finally, there may be an argument, well,
21 women who get mesothelioma, it's not caused by
22 asbestos exposure because they -- in men, it's much
23 easier to document a past asbestos exposure than
24 women. The medical literature is that 90 percent
25 of men, they can find some past asbestos exposure.

09:24:4

09:25:3

1 Sometimes the person dies before you can interview
2 them. Sometimes they don't remember or know about
3 asbestos exposure. The perfect example is cosmetic
4 talc. Nobody knew there was a possibility of
5 asbestos exposure in Johnson's baby powder, at
6 least in modern times, until very recently. There
7 were some publications back in the '70s, which I'll
8 talk to you about, but the fact of the matter is is
9 that, yes, men get more mesothelioma than women
10 because they're more likely asbestos exposed to
11 asbestos. Just because women can't recall asbestos
12 exposure in their past doesn't mean they weren't
13 exposed to asbestos. It doesn't mean that a woman
14 who is exposed to asbestos, that her mesothelioma
15 is not asbestos-related.

16 So I talked about Dr. Kradin. We talked about 09:26:5
17 where chrysotile and asbestos fibers get to.
18 Again, there is no safe level of asbestos exposure.
19 They may bring in an industrial hygienist and say
20 it says, well, this is a tiny amount of asbestos
21 exposure compared to ambient air.

22 The fact of the matter is, any amount of 09:27:1
23 asbestos exposure -- yes, there might be one
24 asbestos fiber floating around in a cubic meter of
25 air in a building because there might be asbestos

1 floor tiles in the building. But in general, the
2 types of exposures you get from working with an
3 asbestos product, cutting it and handling it, using
4 baby powder are tens to hundreds of thousands of
5 times higher than the amount of asbestos you might
6 find in ambient air, background air. And all of
7 these scientific agencies just say, there's no safe
8 level when it comes to asbestos.

9 So we talked about Kerr. BMW Constructors, 09:27:4
10 they are going to say there's no evidence that
11 Melody was around when they were doing something to
12 disturb asbestos. Her testimony is that she
13 remembers them being on the work site and she
14 remembers what she calls a white chalky dust. And
15 you'll have to decide for yourself whether that was
16 more likely than not disturbing asbestos insulation
17 or not. This is a potential asbestos exposure.
18 You are the triers of the fact. You have to decide
19 what caused this woman's asbestos cancer. They're
20 one of the potential causes.

21 Finally, we come to Johnson & Johnson. 09:28:2
22 Johnson & Johnson agrees that there is no known
23 safe level of asbestos exposure to asbestos. They
24 have put out documents that say the mesothelioma is
25 exclusively caused by asbestos exposure. But their

1 position is that there has never been, ever, any
2 asbestos fibers found in any of their baby powder.

3 But here's the thing, talc, like asbestos, is 09:29:0
4 a rock that's mined out of the ground. It's kind
5 of like geological first cousins to asbestos. In a
6 lot of parts of the world, talc can be intermingled
7 with and contaminated with asbestos. In fact, the
8 chemical formula for talc is very, very similar, if
9 not identical, to the chemical formula for
10 anthophyllite asbestos, which is why if you have a
11 talc mine, you have to be very careful to either
12 warn people that there might be asbestos in the
13 talc or not use it or do everything you possibly
14 can to find the asbestos that's there.

15 So Johnson & Johnson had -- if you think of 09:29:4
16 them as the pharmaceutical company, the baby
17 products company, over a significant period of
18 time, from the late '60s up until the late '80s,
19 they were a mining company. They owned a mine in
20 Vermont. This is the state of Vermont. Up near
21 Ludlow, Vermont, Johnson & Johnson, from 1967 to
22 1989, owned a talc mine there called the -- it's
23 owned by a Johnson & Johnson subsidiary called
24 Windsor Minerals, but it's part of Johnson &
25 Johnson. 1989, they sold it to another company,

1 but they kept getting their talc from that mine
2 until the year 2003.

3 So from 1967ish to 2003, Johnson & Johnson got 09:30:3
4 its asbestos -- excuse me, got its talc from this
5 mine in Vermont. And the reason I misspoke and
6 said the word asbestos is because this graphic
7 actually comes from a geological summary that says
8 regions of the United States, shaded area, reported
9 by the Environmental Protection Agency to contain
10 asbestiform minerals in the bedrocks, which is the
11 entire state of Vermont.

12 And if you go on to the U.S. Geological 09:31:0
13 Survey, these little yellow dots are where there
14 were confirmed asbestos mines or asbestos deposits
15 in Vermont. They stopped mining asbestos in
16 Vermont, thank goodness, a long time ago back in
17 the 20th century, but these are what we know
18 about now. And Ludlow and Chester, Vermont, where
19 Johnson & Johnson's talc mines are, are right about
20 there.

21 So there's always been a potential for 09:31:3
22 asbestos to be in the talc that Johnson & Johnson
23 produced. Before 1967, they got their talc from a
24 mine in Italy. And you may hear some testimony
25 about Cashmere Bouquet, which is another talcum

1 powder company that got talc from the same Italian
2 mine for a while from Johnson & Johnson. And there
3 were reports to Johnson & Johnson about tremolite,
4 which is a type of asbestos, being in the Italian
5 rock, the Italian talc. But the vast majority of
6 the potential asbestos exposure that Melody
7 experienced from Johnson & Johnson came from
8 Vermont.

9 Remember I said earlier because mesothelioma 09:32:2
10 is a latency period of, like, 60 years sometimes,
11 and that the last 10 to 15 years, your tumors are
12 already in your body, even though you don't know
13 it. For the past 15 years, Johnson & Johnson has
14 gotten its talc from China. And usually when I
15 think of China, I think of things that tend to be
16 less safe than maybe perhaps things that come from
17 America. But actually, the percentage chance that
18 you have asbestos in talc from a Chinese mine is
19 much, much lower than the Vermont mine.

20 We're not saying that every bottle that Melody 09:33:0
21 used had asbestos in it or even that the majority
22 of it did. But some of it did. We even tested a
23 recent bottle we got from Chuck that was -- she had
24 used some the past couple of years, and it came
25 back negative. But that's from the China mines.

1 That's not what we're talking about. We're talking
2 about the bottles that she would have used in the
3 '60s and '70s and '80s and the '90s. And we didn't
4 have a time machine. You know, I showed you the
5 DeLorean. I couldn't get back in that time machine
6 and go back. I could go back and show you the
7 medical literature that was available. I couldn't
8 go back and get a bottle from the '50s or '60s or
9 '70s. So how are we going to prove to you that
10 there was asbestos in the baby powder and the
11 Vermont talc if we don't have a time machine?

12 So the man who trained me how to try cases
13 once said, documents, you go back and you look at
14 the documents that existed from long ago, documents
15 that people wrote to their bosses or people that
16 were working on a problem. There's an old saying,
17 documents don't lie, documents don't die, documents
18 don't forget things, and documents don't
19 misremember. Anybody can come in and put their own
20 spin on a document or what it means today. But the
21 people who were making decisions at Johnson &
22 Johnson in 1971 when they figured out for real that
23 they had an asbestos problem with their Vermont
24 talc, they're all dead, and we can't go and talk to
25 them. But we've got some of their documents.

09:33:5

1 We've also had some of the historical talcum
2 powder that was sold by Johnson & Johnson and came
3 from its repository tested by modern-day
4 techniques. I want to tell you a little bit of
5 what the documents show and show you a couple of
6 them, because this is a road map. You're going to
7 hear a lot of evidence over the next three weeks,
8 and I can't begin to tell you all of it now. So
9 this is just sort of a teaser, if you will.

10 So in 1971, this man, Dr. Selikoff, his lab
11 reported finding asbestos in Johnson's baby powder.
12 And the FDA reported finding asbestos in Johnson's
13 baby powder. And Johnson & Johnson is like, no
14 way, nohow, you're all wrong. And they went and
15 met with the FDA, they met with Mount Sinai, they
16 met with other scientists, and there was a big
17 scare around 1971, '72, and the world outside of
18 Johnson & Johnson became convinced that, yeah,
19 maybe Johnson & Johnson was right.

20 So in 1971, Johnson & Johnson had some
21 choices, and you're going to see documents where
22 they tried to remove the asbestos from the talc.
23 They talk about ways to remove asbestos from talc.
24 They talk about ways to destroy asbestos in talc.
25 They talk about ways to suppress asbestos in talc.

1 And none of those ways ever made the talc totally
2 asbestos free.

3 So again, as Kathy said, you don't check your 09:36:1
4 common sense at the door. If you don't have
5 asbestos in your talc, don't have a possibility of
6 asbestos in your talc, why are you testing for it,
7 why are you trying to suppress it or remove it.
8 McDonald's doesn't test hamburgers for asbestos.
9 There's no way there's going to be hamburgers with
10 asbestos in it.

11 The other choice that Johnson & Johnson had 09:36:3
12 is, like Kathy said, it's cornstarch. Instead of
13 taking asbestos out of the talc, take the talc out
14 of the baby powder and replace it with cornstarch.
15 Corn is grown out of the ground. It's not a rock.
16 It's impossible to have asbestos in cornstarch.
17 Johnson & Johnson had market surveys that showed a
18 majority of the consumers preferred cornstarch to
19 talc. Why not just make the easy switch. There
20 are reasons for that, which we will show you
21 documents and let you decide how that might happen.
22 But there is no asbestos in corn. Cornstarch is
23 not toxic.

24 Here is what I regard as one of the most 09:37:2
25 important documents in the case. It's going to

1 come into evidence as Plaintiffs' 122. And it's a
2 memorandum between and among various Johnson &
3 Johnson executives.

4 And can you all see that? I need these to see 09:37:3
5 up close. There are advantages to getting older,
6 but there are also disadvantages too.

7 What -- this is to D.D. Johnson from -- it's 09:37:5
8 copied by William Ashton and Roger Miller. Ashton
9 was Mr. Talc at Johnson & Johnson, and Roger Miller
10 was the president of the mine subsidiary. "It's
11 our joint conclusion that we should not rely on the
12 clean mine approach as a protective device for baby
13 powder in the current asbestos or asbestiform
14 controversy. We believe this mine to be very
15 clean; however, we're also confident that fiber
16 forming or fiber-type materials could be found.
17 The usefulness of the clean mine approach for
18 asbestos only is over."

19 Then they go on talking specifically about 09:38:3
20 baby powder. "As for baby powder, the entire
21 thrust of our communication with the FDA is
22 concentrated on asbestos as harmful fiber-like
23 materials.

24 "Our baby powder contains talc fragments 09:38:5
25 classified as fiber. Occasionally subtrace

1 quantities of tremolite or actinolite are
2 identifiable on optical microscope and these might
3 be classified as asbestos fibers.

4 "A program for investigating two different 09:39:1
5 ways of removing large portion of the very fine
6 particles presently found in talc. It should be
7 cautioned, however, that no final product will ever
8 be made which will be totally free from respirable
9 particles. We are talking about a significant
10 reduction in fine particles but not a hundred
11 percent cleanup. Cornstarch is obviously another
12 answer."

13 So they knew they had a potential asbestos 09:39:4
14 problem in this time frame back in '71, '72. This
15 memorandum is actually from 1973. They knew they
16 couldn't get the asbestos out of the talc. They
17 talked about the possibility of cornstarch. Why
18 didn't they just replace the baby powder talc with
19 baby powder cornstarch. I think you all will have
20 to figure out that for yourself.

21 The evidence that you will view, I think there 09:40:0
22 is an enormous problem sometimes -- corporations
23 are people under the eyes of the law, but they're a
24 collective group of people. Corporations can
25 sometimes do things that no human being would ever,

1 ever consider doing. They'll get invested in a
2 product or they'll get invested in a mine and they
3 just say, well, this is such a tiny, tiny, tiny,
4 tiny amount of potential asbestos here, it's not
5 going to be a problem. I can't get back into their
6 heads. You're going to have to figure out why they
7 did this by looking at the documents and hearing
8 the rest of the story.

9 They went out and they persuaded Mount
10 Sinai -- persuaded is sort of a loaded term. Let's
11 say five executives from Johnson & Johnson show up
12 at Mount Sinai and say, we would like you to
13 retract your statements that there's asbestos in
14 baby powder. You'll see a memorandum from 1976
15 where they did explicitly that, and people at Mount
16 Sinai told them, well, hey, we just found asbestos
17 in six more bottles, and yet a press release went
18 out the next day about Mount Sinai did not publish
19 that it found asbestos in six more bottles.

20 You might hear testimony from this gentleman.
21 His name is Barry Castleman. He is an expert
22 researcher on the hazards of asbestos, what was
23 known or knowable in the medical and scientific
24 literature. You may hear from him today or
25 tomorrow. Dr. Castleman, when he was a young

09:40:4

09:41:1

1 researcher at Johns Hopkins in the early '70s,
2 actually wrote to Johnson & Johnson and asked them,
3 is there -- you know, I've read this stuff that
4 there could be asbestos in talc. Is there a
5 problem with your talc? And they wrote him back
6 and explained, no, there isn't. And he believed
7 them. And he believed them for the next 40 years
8 until some of the other documents that I'm going to
9 show you, that we're going to show you, came out in
10 the public domain.

11 Multiple organizations at various points in 09:42:0
12 time tested Johnson's talc that went into baby
13 powder or tested Johnson's baby powder itself and
14 found that there was fibrous asbestos or fibrous
15 amphibole, which is a term -- amphibole is a type
16 of asbestos, in the talc. You'll see documents
17 from all of these groups where there was the issue
18 of asbestos raised at various points in time. Some
19 of these were in the '70s, some of these were in
20 the '80s.

21 The Rutgers is significant because this was an 09:42:3
22 article published in 1991 by Alice Blount. Alice
23 Blount was a scientist at Rutgers University, a
24 geologist, who figured out and thought she was the
25 first person to figure out a way to prepare talc to

1 look for asbestos in it. Unlike products where
2 asbestos is intentionally added to the product,
3 when you're talking about asbestos as a
4 contaminant, it's a low level. It doesn't mean
5 it's not dangerous, but it's at a trace level.
6 There's a way you have to prepare the talc in order
7 to essentially have enough time to look at enough
8 fields in a microscope to find fibers.

9 And Dr. Blount figured this out. She 09:43:2
10 published an article in 1991 that says, I've
11 developed this method where it's essentially
12 like -- it's called a heavy liquid density
13 separation method. That's a mouthful, and I'm
14 going to botch it when I talk to the expert who's
15 going to describe sort of what it is. But
16 basically, it's like oil and vinegar. One, because
17 some minerals are heavier than others, you put this
18 liquid density that's the same density as talc,
19 make a wet slurry, swirl it around in a centrifuge,
20 and the heavier metals, which would include
21 amphibole asbestos, and other heavy metals drop to
22 the bottom and you can analyze that and see if
23 there's asbestos fibers present.

24 Anyway, Dr. Blount published an article and 09:44:0
25 said, one of the things I tested had asbestos

1 needles and fibers in it. What the published
2 article, which was actually cited by the
3 International Agency for Research on Cancer, the
4 published article said one of these cosmetic talcs
5 had asbestos in it. They didn't tell you which
6 one. What we found out when we got Johnson's
7 documents in what's called discovery in a lawsuit
8 is that it was Johnson's baby powder. There's a
9 key on the back of the article in Johnson &
10 Johnson's file, but more importantly there's this
11 letter. In 1998 Johnson & Johnson hired Dr. Blount
12 as its expert. And she wrote, on behalf of whoever
13 was Johnson & Johnson's lawyers in a lawsuit, and
14 she wrote them a letter that says, "I have enclosed
15 copies of my 1990 and 1991 papers, one of which I'm
16 sure you already have. The 1991 paper was written
17 because I became aware it was a common opinion
18 among industrial hygienists that industrial talcs
19 are better than pharmaceutical and cosmetic talcs
20 because there was a regulation for the former and
21 not for the latter. I knew that this was not the
22 case and I wanted to set the record straight."

23 She then goes on to say, "Although my papers
24 report an improved method for analysis, the
25 determination for the sample labeled I, Johnson &

09:45:2

1 Johnson's Vermont talc, have been done by
2 traditional methods as well, in Table 2 of my 1990
3 paper. As I told you, I believe that Johnson &
4 Johnson's Vermont talc contains trace amounts of
5 asbestos which are well below those specified by
6 OSHA. It should be noted that the proposed FDA
7 regulation, which was never finalized, also
8 specified the same .1 percent for amphibole
9 asbestos as OSHA."

10 So this was a scientist -- Rutgers is in the 09:46:0
11 same city as the headquarters of Johnson & Johnson.
12 The scientist is right down the street telling
13 them, there is asbestos in your baby powder.

14 Like I said before, we hired an expert 09:46:1
15 material scientist named Mark Rigler. He's
16 worked -- he just retired actually, this summer. I
17 was a little bit worried that he was just going to
18 pack it in because he has a young granddaughter and
19 he wanted to stop spending as much time at the lab.
20 He and his senior partner at the lab, a lab called
21 Material Analysis Services, have tested hundreds of
22 materials for asbestos over 30 years. Dr. Rigler
23 is published in peer-reviewed journals about how to
24 identify asbestos in various types of things,
25 including, believe or not, there's a cigarette

1 company that put asbestos in a cigarette filter.
2 You talk about a time bomb waiting to go off.

3 He and his colleague Bill Longo published a 09:46:5
4 paper some 25 years ago that showed how you look
5 for asbestos in a cigarette filter. Using those
6 same techniques, except for they started using the
7 Blount preparation method on talc in the past few
8 years, they identified asbestos fibers. And they
9 identified asbestos fibers in some of the Johnson's
10 baby powder containers that they got from Johnson &
11 Johnson that came from places, you know, like
12 museums from long ago. Did they find asbestos in
13 every container, no. But a significant portion of
14 them, they did, and that when that is used as
15 intended, there is a real and sustainable asbestos
16 exposure from someone who used a Johnson's baby
17 powder contaminated with asbestos. You will see
18 documents from these companies that indicate that
19 they also found asbestos in Johnson's baby powder.

20 There are different ways to test for asbestos, 09:47:5
21 and this is probably the most complicated part of
22 the case, but I like to think of it as if you're
23 going to look for microbes on your hand, would you
24 use a magnifying glass to do it or would you use a
25 microscope? Those are three different ways to look

1 for asbestos in substances.

2 XRD is called x-ray diffraction, and that's a 09:48:1
3 way that they use x-rays to determine by weight if
4 there's the minerals that make up asbestos by a
5 certain percentage. That can only detect asbestos
6 if they're -- if by weight it's at least .2 to
7 .5 percent. The percentage of asbestos we're
8 talking about in talc is much, much lower than
9 that. It doesn't mean it's not dangerous, but it's
10 just not detectable. If you set the line at
11 .2 percent, you could test the talc for a hundred
12 years, a thousand times a day it, you'd never find
13 it.

14 A polarized light microscope can sometimes see 09:48:4
15 slightly higher -- lower concentrations than that.
16 The transmission electron microscope can get down
17 to parts per million, but only if you prepare the
18 talc in a way that allows you to have adequate time
19 to look for it. And that's the Blount heavy
20 liquid -- I knew I was going to mess this up -- the
21 heavy liquid density separation method. And that
22 method, although Dr. Blount published it in the
23 peer-reviewed literature so all the world could see
24 it, apparently we found that scientists and
25 companies that were working on behalf of Johnson &

1 Johnson told them about this method in the early
2 '70s. So the transmission electron microscope has
3 been around since the early '70s, as has this
4 preparation method.

5 So when Johnson & Johnson talks about all the 09:49:3
6 times that its talc was tested by all these
7 different agencies and companies, ask yourself,
8 what was the method they were using, and were they
9 using the Blount preparation method every time they
10 tested it. And the answer is, you'll find it's no.
11 The only time asbestos really shows up is when you
12 use the Blount preparation method.

13 This is a document from Johnson & Johnson's 09:49:5
14 files. Dartmouth College was writing about this
15 method in 1974, and there you see Dr. Blount using
16 the centrifuge in 1991.

17 The FDA. You're going to hear a lot of 09:50:0
18 discussion about, well, geez, you know, the FDA
19 never banned cosmetic talc. The FDA, there's even
20 a citizens petition in 1986, and citizens said,
21 hey, maybe there should be a warning on talc. The
22 FDA said, no, we don't think there's evidence --
23 they said there might have been asbestos in
24 cosmetic talc before, but we don't think the
25 evidence rises to the level that it requires a

1 warning.

2 So two responses to that. Number 1, Johnson &
3 Johnson never gave the FDA's internal testing from
4 1973 forward. The FDA has tested some cosmetic
5 talc more recently, the China talc, and they don't
6 use the Blount preparation method. They have
7 tested it using electron microscope with a limited
8 detection much higher than would be used for the
9 Blount method, and they have said, you know,
10 there's asbestos in some kinds of makeup, but not
11 in Johnson's baby powder. And that's not
12 surprising. I'm not surprised by that at all.
13 What I am surprised by is that Johnson & Johnson
14 didn't provide the FDA with all of the documents
15 that you're going to see in this trial.

16 So I'm running short on time. Johnson &
17 Johnson, they'll talk about epidemiology. They'll
18 say there's no mesotheliomas in the miners that
19 mine talc around the world. Well, the problem with
20 that argument is the Vermont mine, there was a
21 cohort of 392 people. There was either one or two
22 mesotheliomas out of the Vermont talc mines.
23 There's a paper published -- I don't know if their
24 expert will talk about it, but there was a paper
25 published in the past two months that talks about

1 those two miners. There's a paper published
2 40 years ago almost that talks about mesothelioma
3 in that cohort.

4 I'm sure that Johnson & Johnson will say, 09:52:0
5 look, there had to have been other asbestos
6 exposure in Melody Lewis' life. We don't dispute
7 that. But that doesn't let them off the hook any
8 more than if a bunch of kindergartners run across a
9 playground and all do something wrong just because
10 other people are doing something wrong doesn't let
11 your kid off the hook, does it? That's the basic
12 idea.

13 Their biggest defense is going to be what 09:52:2
14 Alice Blount, what Mark Rigler, what these other
15 people found is not asbestos. They'll say, oh,
16 it's not really asbestos. Even though it says
17 tremolite or even though the memo might be about
18 asbestos, what they're finding is cleavage
19 fragments. And the person that they will bring to
20 make this argument is a gentleman by the name of
21 Matt Sanchez, who works for something called the
22 RG Lee Group. Dr. Sanchez was hired out of
23 graduate school by the RG Lee Group. They paid for
24 him to go to school.

25 The RG Lee Group is kind of the go-to group 09:53:0

1 for companies that are defendants in asbestos
2 litigation when they want to try to say that
3 asbestos is something else. The Libby vermiculite
4 that went into the World Trade Center, that has
5 asbestos in it. RG Lee was an expert witness for
6 the company that made that insulation. They said
7 that is not really asbestos, not enough asbestos.

8 So take everything Dr. Sanchez says with a 09:53:3
9 grain of salt. And remember, he can't get in a
10 time machine any more than I can. He can't go back
11 and test whatever it was the people who were
12 writing this memo, 1973, some of the documents in
13 the '70s, he can't go back and test the positive
14 test results that they got from these outside labs
15 because Johnson & Johnson never saved all the
16 samples to back up the tests nor did they save all
17 the work product.

18 When there's a test done, there's pictures 09:54:0
19 sometimes of fibers and there's count sheets, and
20 for the vast majority of testing done by Johnson &
21 Johnson, that doesn't exist. The one example that
22 we do have, the test result, the memo says no
23 asbestos detected. If you turn to the worksheets,
24 it talks about anthophyllite asbestos. So keep
25 your eye on the ball when you're looking at the

1 evidence.

2 So our time is about up. I tried to, in as 09:54:3
3 succinct a way I could, give you a road map of what
4 the evidence will show at the end of this case, but
5 I never want you to lose sight of the fact that
6 there's a real human being here whose wife is
7 dying, and the damages here are enormous. She has
8 gone through multiple rounds of chemotherapy. She
9 is doing everything she can to stay alive for
10 another month or two.

11 I hate to say this in front of Chuck, but he 09:55:0
12 is going to lose the love of his life right at a
13 time when people -- you know, kids are grown up,
14 have their own lives, get a chance to travel.
15 Believe me, I'm looking forward to that kind of
16 future. Everyone should have that kind of future.
17 You can travel with your soulmate, do things with
18 your soulmate. They got to take a vacation to the
19 beach very recently. That's probably the last
20 vacation they'll ever get. How do you put a value
21 on that? We will come back at the end of this case
22 and ask for a verdict that weighs a value on that.

23 Kathy and I and Vin thank you for your time, 09:55:4
24 thank you for your attention, and I want you to
25 just pay as good attention to the lawyers for the

1 defendants. But look, we believe we will prove an
2 overwhelming case to you and we believe that the
3 law will justify an enormous verdict.

4 Thank you, Your Honor, may it please the 09:56:0
5 Court.

6 THE COURT: Thank you. That concludes the 09:56:0
7 plaintiffs' opening statements, so we're going to
8 take a break now, and the Court's going to
9 reconvene at 10:15. So let's get Bridget in here.
10 And she'll take you back to the jury room, and you
11 have till 10:15 to call your own.

12 Now, the admonishment that we talked about 09:56:2
13 before, let me go ahead and just review that
14 briefly. You're not to discuss the case until all
15 the evidence is in and neither are you to do any
16 research or to talk with any of the parties or
17 witnesses.

18 Thank you. We're ready for a break. They're 09:56:4
19 to be back at 10:15.

20 THE BAILIFF: All rise. 09:56:4

21 (Whereupon, the jury exited the courtroom.) 09:56:4

22 THE COURT: And then just a brief scheduling 09:57:0
23 matter with counsel, please.

24 (A brief recess was taken.) 09:57:2

25 THE BAILIFF: All rise. 10:10:2

1 THE COURT: Thank you. Please be seated. 10:10:3
2 Before we bring the jury back in, I'd like an
3 indication of how late we think we'll go today,
4 because I'd like to tell the jury before I release
5 them for lunch.

6 MR. FINCH: If we could go till 5:30 today, 10:10:4
7 Your Honor?

8 MR. DRUMKE: Is that just with Brody or is 10:10:5
9 that --

10 MR. FINCH: No, no, no, we'll be -- that's 10:10:5
11 both of them.

12 MR. BICKS: Well, we won't get the cross in. 10:10:5

13 MR. GREENE: Well, we'll get as far as we can 10:11:0
14 is the point. So we'd like to get Dr. Brody up and
15 down, Your Honor, and then start with Dr. Castleman
16 and get as far as we can is really the key.

17 THE COURT: So you want to complete direct and 10:11:1
18 cross of Dr. Brody?

19 MR. FINCH: Yes, Your Honor. 10:11:1

20 THE COURT: And then you want to do direct of 10:11:1
21 Castleman?

22 MR. GREENE: Yes. 10:11:1

23 THE COURT: And defendants. 10:11:1

24 MR. BICKS: That's fine. I don't think we'll 10:11:2
25 get to the cross, but whatever works.

1 THE COURT: With Castleman. 10:11:2

2 MR. BICKS: Yeah. 10:11:2

3 THE COURT: All right. I'll ask them. 10:11:2

4 MR. BICKS: I just don't want them to get too 10:11:3
5 tired.

6 THE COURT: Well, we started early. I'd like 10:11:3
7 to give them an hour and 15 minutes for lunch
8 because security.

9 Oh, as to the attorney IDs, if you're still 10:11:3
10 interested, there's a fee of \$60 per pass, and I
11 did e-mail the list, and you need to go down and
12 pay them, send somebody down to court
13 administration, pay them. They'll prepare them.
14 They'll send you a link. You go -- or no, you just
15 go to the sheriff's office on 1 and then they make
16 the pass and give it to you.

17 THE BAILIFF: It's 101. 10:12:0

18 MR. BICKS: Great. Thank you for doing that. 10:12:0

19 THE COURT: So you need to talk to Paige Bova. 10:12:1

20 MR. GREENE: Thank you, Your Honor. 10:12:1

21 THE COURT: And if you let me know when you're 10:12:1
22 going, I'll e-mail her to make sure she's going to
23 be there.

24 MR. BICKS: Got it. 10:12:2

25 THE COURT: Or could you e-mail her? 10:12:2

1 THE BAILIFF: Sure. 10:12:2

2 THE COURT: Because I should listen. 10:12:2

3 THE BAILIFF: Are you ready for me to get the 10:12:2
4 jury?

5 THE COURT: Yeah. 10:12:3

6 (A discussion was held off the record.) 10:12:3

7 THE BAILIFF: All rise. 10:15:1

8 (Whereupon, the jury entered the courtroom.) 10:15:2

9 THE COURT: Welcome back, and please be 10:15:3
10 seated.

11 As I said earlier this morning, plaintiffs 10:15:4
12 have completed their opening, and now it's time for
13 defendants to begin.

14 So Mr. Bicks. 10:15:5

15 MR. BICKS: Thank you, Your Honor, yes. 10:15:5

16 So good morning, ladies and gentlemen. 10:15:5

17 JURORS: Good morning. 10:15:5

18 MR. BICKS: Peter Bicks for Johnson & Johnson 10:15:5
19 and Anne Malik. I told you in voir dire I was
20 going to be anxious to get up. I was anxious to
21 get up. And I'm excited to get up. I'm excited
22 because I have to defend Johnson & Johnson. What
23 you've heard over the last hour plus was an attack
24 on the men and women who work there. The evidence
25 will show in this case that the allegations are not

1 true. In fact, most of what was said is actually
2 false.

3 One thing we agree on here is sympathy. We 10:16:3
4 talked about it so much in voir dire. All of us
5 have had cancer touch our lives, every single one
6 of us. We have to set that aside. We are as
7 sympathetic as anyone can be for the Lewis family.
8 But Judge Hannah will tell you in this case that
9 you have to set that aside and make a decision
10 based on the evidence, based on the evidence. You,
11 ladies and gentlemen, are the jury we selected to
12 hear the evidence.

13 What will the evidence show? Johnson & 10:17:0
14 Johnson's talc products did not cause Mrs. Lewis'
15 mesothelioma. Full stop. And I'm going to talk
16 about how that's the case. You've heard the saying
17 and I mentioned it in voir dire that there are two
18 sides to every story. Now it's our turn to tell
19 our side.

20 And I have it divided up into a story with six 10:17:3
21 chapters. The first three are going to be about
22 Johnson & Johnson and how things developed, the
23 fourth about Mrs. Lewis and things she was exposed
24 to, the fifth about some of the things that will
25 actually happen in this case. I call them

1 misdirection. I'm going to ask you to keep your
2 eye on the ball. And chapter 6 is this courtroom
3 and where we go from here.

4 So let's start from the beginning. Chapter 1. 10:18:0
5 A company called Johnson & Johnson, founded in
6 Brunswick, New Jersey, been in business for over
7 120 years. The company's first products were
8 actually first aid products, sterilized bandages
9 and sutures used to stitch up people who were
10 wounded, including people who came back from war.

11 Johnson's baby powder was a product that came 10:18:3
12 into being initially at the end of the 1890s, and
13 it was used to put inside medicated casts to make
14 it less irritating. That was one of the things
15 Johnson & Johnson made. That's how baby powder was
16 born.

17 It grew to become a product that was used by 10:18:5
18 millions and millions of people. And to be clear,
19 let's say this right now, Johnson & Johnson is not
20 an asbestos company. Johnson & Johnson doesn't
21 make products with asbestos. Johnson & Johnson is
22 a healthcare company, a consumer products
23 company -- many of you know their products -- and a
24 medical device company. They are not an asbestos
25 company.

1 Judge Hannah told you, and I wrote this down, 10:19:2
2 that in deciding what or whom you believe, you
3 should use your own knowledge, experience, and
4 common sense gained from day-to-day living. And
5 you're going to hear me use common sense during my
6 opening statement because I think that's the most
7 valuable thing for folks like you, all different
8 backgrounds, all different knowledge, but we all
9 have common sense.

10 So there are 325 million people in the United 10:19:5
11 States, give or take. There are hundreds of
12 millions of people who have used Johnson &
13 Johnson's baby powder since 1894. There are just
14 over 700 cases of mesothelioma in women. It's
15 very, very rare. So on common sense, if what
16 plaintiffs told you was true, that there's been
17 harmful amounts of asbestos in Johnson & Johnson's
18 baby powder going back to 1894, it completely
19 defies common sense that there would be so few
20 women with mesothelioma. Hundreds of millions of
21 people have used this product for 120 years.

22 What is it made of? It's made of talc. And 10:20:5
23 you may be saying to yourself, what is talc? It's
24 a soft, platy mineral. It is not asbestos.
25 Johnson & Johnson had specifications that asbestos

1 should not be in its product. Johnson & Johnson
2 does not want asbestos in its product, and talc is
3 not asbestos.

4 There are two kinds of talc which will be 10:21:1
5 important in this case, industrial grade talc and
6 cosmetic grade talc. Only 5 percent of talc
7 qualifies at cosmetic grade. And you can see some
8 of the products that cosmetic grade talc is used
9 in, everything from olive oil to pills to Tums.
10 It's used everywhere, thousands of products talc is
11 used in for cosmetic grade. Industrial grade talc,
12 things used in rubber, things used in plastics, is
13 not as pure as the cosmetic grade talc. That will
14 be important as you hear the evidence in the case.

15 There are three sources that Johnson & Johnson 10:22:0
16 used, you'll learn about in the case: Italy, going
17 back to the late 1920s; Vermont, starting in the
18 mid '60s; and then China from 2003 forward. So
19 that's the last 15 to 16 years that Mrs. Lewis said
20 she used Johnson's baby powder, it came from China.

21 Johnson & Johnson tested its talc at five 10:22:2
22 important steps. One, when it got high quality
23 mines. Before Johnson & Johnson went to any mine,
24 they made sure it was good talc. They also did
25 something called selective mining, and you'll learn

1 a little bit about mining. Talc comes out of the
2 earth in big mines, large mines. And people who
3 know this business, they go to different parts of
4 the mine to find the pure places to get the talc
5 from. That's called selective mining. That's
6 going to be important.

7 The talc is then taken to a mill where it's
8 processed, and Johnson & Johnson processes talc
9 through a more than 30-step washing and floating
10 process to make sure it was pure as possible. And
11 then there was testing of the talc at the final
12 product stage. So there's multiple times where
13 Johnson & Johnson's talc was tested, and you'll
14 learn about that in the case.

10:23:0

15 This is very important, because I am going to
16 talk to you in this case about real world evidence.
17 This is evidence outside of the courtroom with
18 people who don't have any skin in the game.
19 Harvard School of Public Health, NIOSH, N-I-O-S-H,
20 the National Institute for Occupational Safety and
21 Health, they wrote a paper in 1979. Geologic
22 studies dating from early 1900s have shown that
23 Vermont talc deposits contain no asbestos. These
24 were the deposits that Johnson & Johnson used.

10:23:2

25 You heard from plaintiffs' counsel about IARC,

10:24:0

1 the International Agency for Research on Cancer,
2 part of the World Health Organization. They wrote
3 about Italy where Johnson & Johnson first got its
4 talc. These mines were described as pure. This is
5 the International Agency for the Research of
6 Cancer. This isn't Johnson & Johnson.

7 So let's talk about Chapter 2 of the story, 10:24:3
8 because this is a very important chapter. And I
9 like the time capsule idea, and I put up here a car
10 that I'm embarrassed to say was a car I used to be
11 in as a kid with three of my siblings. And I know
12 that telephone also over there. Today is very,
13 very different. Many folks are glued to their cell
14 phones. Everyone's got seat belts and airbags in
15 cars. Things were different during this time
16 frame. So let's go back in time a little bit and
17 try to put ourselves in what was going on then.

18 Asbestos is everywhere, as plaintiff's counsel 10:25:1
19 said. It's in floor tiles, ceilings, cement pipes.
20 It was everywhere. And to be clear, not Johnson &
21 Johnson. This is not their business. It's not
22 only just in products, in hundreds of products, if
23 not more, as plaintiff's counsel described, it's in
24 the atmosphere, it's in the soil, it's in water
25 that we drink. And why do I say that?

1 You will hear from plaintiffs' first witness, 10:25:4
2 Dr. Arnold Brody, that all of us will have billions
3 of asbestos fibers in our lungs. And he will say,
4 that's just not a lot. And I guess he will answer
5 the question, when you see that amount of
6 background fiber, of whether or not there's any
7 really serious risk of injury. And I think he's
8 going to say that there isn't. This is background
9 asbestos that Johnson & Johnson has nothing to do
10 with, but it's just a fact of life. It's
11 everywhere.

12 The story starts in the early '70s, around 10:26:2
13 June of 1971, with these two doctors at Mount
14 Sinai, Dr. Langer and Dr. Irving Selikoff.
15 Plaintiff's counsel spoke about them. One of these
16 scientists thought, had done some preliminary
17 research and thought that they had seen asbestos in
18 cosmetic talc. And it got on the front page of the
19 papers.

20 So when plaintiffs' counsel told you that it's 10:26:4
21 only recent that this asbestos in talc question was
22 raised, ladies and gentlemen, that's not true.
23 This was raised almost 50 years ago on the front
24 page of the papers. And you see a statement over
25 there to the left which was Johnson & Johnson's

1 statement, in 1971, "Our 50 years of research
2 knowledge in this area indicates that there's no
3 asbestos in the powder made by Johnson & Johnson."

4 That's research that was done. I showed you 10:27:2
5 IARC. I showed you Harvard, NIOSH. There's a lot
6 of research that you're going to see. This is a
7 company that cared and was responsible in what it
8 did. It wouldn't be in business for 130 years if
9 it wasn't.

10 So here was the false alarm, the media, and we 10:27:3
11 all know the media today, somebody picked up a
12 story, and it ran like wildfire. It then turned
13 out that the scientists who thought that they found
14 asbestos realized that they were mistaken. Wall
15 Street Journal article, "I wish to make a
16 correction. There's no evidence of asbestos." New
17 York Times on Saturday, 1972, June 17th, "It's
18 absolutely untrue. No detectable contents of
19 asbestos."

20 And I don't fault these men. They were trying 10:28:1
21 to do the best they could. But science was
22 developing, and not everybody knew how to test talc
23 in the right way. They admitted they made a
24 mistake, which I give them credit for. But
25 Johnson & Johnson then took action. Somebody had

1 accused the company of having asbestos in its talc.
2 What would a responsible company do? They brought
3 in the best.

4 These are some of the people they brought in 10:28:3
5 to test their talc. Cardiff University over in
6 Wales, famous for asbestos research. The McCrone
7 Group you'll hear about. Colorado School of Mines,
8 all they do is teach people how to mine and what's
9 in mines. University of Turin in Italy, where the
10 Italy deposit was. Dartmouth, MIT, Princeton, and
11 Mount Sinai. Researchers at all of those places
12 came together at Johnson & Johnson's request,
13 please look at our talc, confirm what we know based
14 on our 50 years of research. Ladies and gentlemen,
15 all of them confirmed that Johnson & Johnson talc
16 did not contain asbestos. No skin in the game, not
17 coming into a courtroom to help a party. Helping a
18 great company to make sure they were doing things
19 right.

20 Who tested it? I mentioned Walter McCrone. 10:29:3
21 Walter McCrone was the leader in microscopy. When
22 there was a question about the shroud of Turin that
23 Jesus was supposedly buried in, they brought in
24 Walter McCrone to figure out if it was true. A
25 hair they thought was Beethoven's, the man they

1 brought in was Walter McCrone to decide whether or
2 not that was true. Everyone in the case will say
3 that Johnson & Johnson brought in the best
4 microscopist in the world to make sure that their
5 talc was safe.

6 You'll hear about somebody named Fred Pooley I 10:30:0
7 mentioned prior. Johnson & Johnson turned to him.
8 He went to Italy and Vermont, to the mines himself,
9 and wrote detailed reports about what was there,
10 and he confirmed what everybody else was saying,
11 that those mines were safe and that those mines did
12 not contain asbestos. And you'll see the reports.
13 Very, very detailed reports. One of the best
14 geologists in the world was who Johnson & Johnson
15 turned to. And he confirmed there was no asbestos
16 in the talc.

17 The FDA got involved. They did a four-year 10:30:4
18 intensive investigation testing talc, including
19 Johnson & Johnson. Four years, ladies and
20 gentlemen. This question that plaintiffs' counsel
21 told you was suddenly something new, that's not
22 what the evidence will show. The FDA was looking
23 at this with all of these other scientists for four
24 years. And what did they conclude? There was no
25 asbestos found in any of Johnson & Johnson's

1 samples. And you'll see that evidence.

2 Even Mount Sinai and Dr. Selikoff, who the 10:31:1
3 plaintiffs and their expert will tell you was a
4 luminary, one of the most important people in
5 protecting workers, they told the world that the
6 most commonly used baby talc has been consistently
7 free of asbestos -- that's Johnson & Johnson's baby
8 powder -- and that the opinion of the Mount Sinai
9 department of pediatrics is that that baby powder
10 is useful and safe. That's Johnson & Johnson's
11 product, and these were some of the top scientists
12 in the world.

13 How were they testing? They were using the 10:31:5
14 three microscopes that plaintiffs' counsel told you
15 about, and you'll learn in the case for those of
16 you who are interested in science, it can be
17 challenging, but it's kind of cool, because a lot
18 of knowledge went into this. And Johnson & Johnson
19 used all of these microscopes. You'll see each of
20 them do different things, but they worked together
21 as a team.

22 What was going on in the 1970s were that the 10:32:2
23 top scientists were trying to get together and
24 determine what was the best way to test for talc.
25 And that TEM microscope at the bottom was hugely

1 expensive. There were a few in the world, and they
2 were very, very hard to get good people to use it
3 right. They were kind of rare. So the method that
4 was adopted by the industry at this time was
5 something called J4-1. And J4-1 suggested that you
6 use XRD and PLM, two of the three microscopes. And
7 you'll learn about these microscopes.

8 The evidence will show that Johnson & Johnson 10:32:5
9 surpassed industry standards. They were using TEM
10 microscopes right from the beginning, going back to
11 1971. They went above and beyond the standard. So
12 you can imagine when I hear them attacked that I
13 don't feel that's right when a company goes beyond
14 what everybody else is doing, and that's what the
15 evidence will be.

16 You heard about the concentration method. 10:33:2
17 Mr. Finch had some trouble saying it, so I'm going
18 to call it concentration method. I'd have trouble
19 too. But what he didn't tell you is that the FDA
20 looked at the concentration method and said they
21 discontinued looking at it, because it doesn't work
22 on chrysotile asbestos, which was the one
23 plaintiffs' counsel said is used in 95 percent of
24 products because it was the same weight as talc, so
25 it couldn't be separated. So the FDA actually

1 looked at this concentration method and
2 discontinued research into it. Dr. Pooley himself,
3 the expert, said that this method was inaccurate
4 and an unsuitable technique to adopt.

5 So we're being criticized for not following a 10:34:1
6 method that the FDA said wasn't good and that an
7 expert said was inaccurate and unsuitable. That's
8 what was happening at the time. The method that
9 Johnson & Johnson did use was the one that was
10 described by McCrone and others as the best
11 analytical tools for determination of fine asbestos
12 minerals. Those were the three microscopes that I
13 showed you, including the transmission electron
14 microscope. This is what was in the science. And
15 Johnson & Johnson was using the best analytical
16 tools.

17 So this is where I am back to common sense. 10:34:5
18 The FDA performs an investigation. They conclude
19 that Johnson & Johnson's talc is safe. Johnson &
20 Johnson brings in the best microscopist in the
21 world, who published their test methods and used
22 the best analytical tools, but now the plaintiffs
23 are saying, everyone in the world didn't know what
24 they were doing and hid the presence of asbestos.
25 Ladies and gentlemen, that does not make common

1 sense. And Judge Hannah has said, let's keep our
2 common sense. The evidence will be, and common
3 sense will show, that the concern over asbestos in
4 Johnson & Johnson's talc in the '70s was a false
5 alarm. It is a claim that has been debunked many
6 times over, and we will ask you in this courtroom
7 to debunk that same claim.

8 Chapter 3. Science confirms J & J's talc is 10:36:0
9 safe, 1971 up to today. So I'm going to review
10 with you 50 years of some of the science that
11 you're going to hear. Johnson & Johnson goes into
12 the mid '70s with every top institution saying that
13 that talc is safe and without asbestos, and they've
14 got test methods that exceed the industry standards
15 that they're going forward with. So let's see what
16 unfolds.

17 We're turning a little bit to Vermont. It's 10:36:3
18 true, Johnson & Johnson owned through another
19 company several deposits in Vermont and then China.
20 NIOSH and Harvard came in in 1979 and did a joint
21 study. They wanted to see what was happening to
22 people in talc mines at the time and were they
23 getting disease from talc. So they chose the
24 Johnson & Johnson mine because it was pure, but
25 they wanted to test ahead of time to make sure that

1 it was pure. So they went ahead, they first got
2 the XRD, the PLM, and the TEM microscopes, and they
3 went and took samples from Johnson & Johnson's
4 mines.

5 And they published a report, again, no skin in 10:37:1
6 the game, people not coming into a courtroom to
7 favor either side, real world evidence. This is a
8 picture of Maryann Boundy, famous geologist from
9 down south. You'll hear some of these names. John
10 Dement. These are all well-respected scientists.
11 They say that the Vermont talc deposits contain no
12 asbestos, and they do further analysis which
13 include all the microscopes, and they say there's
14 no asbestos in these samples. This is evidence
15 from 1979, ladies and gentlemen.

16 The FDA did get involved, starting in 1983. 10:37:5
17 The way the FDA works, if any citizens, any of us,
18 feel that something should be added to a product, a
19 warning, we're concerned, we can petition the FDA.
20 That happened here. Two years an assessment was
21 done by the FDA where they looked at the evidence.
22 They responded after looking at all the evidence,
23 and they said three important things. One, there's
24 no basis that there is a health hazard attributable
25 to asbestos in cosmetic talc. This is from the

1 FDA, ladies and gentlemen.

2 Two, there's no need to require a warning 10:38:3
3 label on the cosmetic talc. The plaintiffs'
4 counsel said we should have put a warning label.
5 Ladies and gentlemen, you don't warn for a hazard
6 that doesn't exist. The FDA said that there was no
7 need for a warning label.

8 And then most significantly, the FDA looked 10:38:5
9 at, what would be a worst-case scenario. Let's say
10 there is a trace amount, and you'll learn about
11 trace. Trace is an infinitesimal amount of
12 something. What happens if there's a trace amount?
13 The FDA said that a risk from a worst-case estimate
14 of exposure to asbestos from cosmetic talc would be
15 less than the risk from environmental background
16 levels of exposure. Remember I showed you the
17 billions that all of us are exposed to it. The FDA
18 said the risk of anything in talc would be less
19 than that. Not Johnson & Johnson's words, the
20 FDA's words.

21 The FDA also tested Johnson & Johnson's talc 10:39:3
22 in China. This isn't Johnson & Johnson testing.
23 This is the FDA. From time to time, they've tested
24 Johnson & Johnson's talc. They went and hired an
25 independent laboratory to do it. These are the

1 test results. At the end of the day, there was no
2 asbestos detected in any of Johnson & Johnson's
3 products, and no asbestos detected in the mines
4 that Johnson & Johnson was using. They tested the
5 source mine, and they tested finished product.
6 This is what the FDA did.

7 And even today, the FDA will say that the 10:40:2
8 techniques that were used to test that China mine
9 were the most sensitive techniques available. And
10 those were very similar to the techniques that
11 Johnson & Johnson had used when they exceeded the
12 industry standards going back to 1971.

13 What was Johnson & Johnson doing? Ladies and 10:40:4
14 gentlemen, they were taking hourly samples from
15 their production area, every hour, every shift,
16 every day, and putting them together as composites
17 so that they could be then sent off and tested by
18 McCrone laboratory using TEM microscopes.

19 What did McCrone say? Very important report, 10:41:0
20 ladies and gentlemen, you'll see in the case.
21 1987, a 15-year look back to 1971. And what do
22 they say? We've continuously monitored these
23 samples. Windsor's product is free of asbestos.
24 Windsor is Windsor, Vermont. That was the company.
25 And they said, that is our opinion based on

1 15 years of closely examining the product. Best
2 microscopist in the world Johnson & Johnson looked
3 to. And you'll see that the Illinois EPA also
4 confirmed the same thing. Real world testing, not
5 for litigation.

6 Johnson & Johnson was receiving certifications 10:41:5
7 when it sold Vermont, it did in about 1989. And it
8 received certifications from the supplier who was
9 also testing the talc, and those certifications
10 said, does not contain asbestos. Thousands of
11 certifications, and you'll see those
12 certifications. Testing was done and this is what
13 Johnson & Johnson received.

14 You'll hear from Dr. John Hopkins, most likely 10:42:1
15 by video. He lives over in England, and he's had
16 his video testimony taken in this case. They're
17 going to go first, and remember I told you, listen
18 carefully when it's our turn. They're going to ask
19 him questions. Then it's our turn. He'll testify
20 about all the issues that I was talking about. And
21 I hope it will be helpful to you.

22 You'll see a couple things that actually I'll 10:42:4
23 say right now, plaintiffs' counsel said you can
24 spin documents. What you heard was spinning
25 documents. When you see a document, please, read

1 the whole document. We've all had e-mails taken
2 out of context, snippets. Please look at the whole
3 document. Johnson & Johnson authorized McCrone to
4 give their testing to the FDA. It was said to you
5 that Johnson & Johnson didn't give testing over.
6 Johnson & Johnson said to McCrone, give to the FDA
7 all of our testing of the cosmetic talc, please.
8 You'll hear that from Dr. Hopkins.

9 Epidemiology, very important science. Study 10:43:1
10 of groups. Study of groups. The miners and
11 millers of these deposits have been studied, ladies
12 and gentlemen. These are the people who are there
13 every day, every working day. Use your common
14 sense. You put baby powder on ten seconds, 15
15 second, five seconds a day. These are people who
16 live and work in those mines eight hours, nine
17 hours a day. They were studied. Massive
18 exposures, four studies from 1976 to 2017, no
19 increased risk of mesothelioma, among men who lived
20 in that talc every day. Use your common sense,
21 please, and compare the talc exposure that somebody
22 would have in the mine when they're there all day
23 to using baby powder.

24 There's also studies of people who are 10:44:1
25 barbers, hair dressers, cosmetologists, people who

1 are putting talc all over the place. If you go to
2 a barber, at least if they cut your hair in the
3 back, they put talc on it. These people who are
4 working with those products have been studied, no
5 increased risk of mesothelioma among people, real
6 world testing of people who are around talc.

7 Wagner and Pooley animal study. They actually 10:44:4
8 took Italian talc and injected it into rats to see
9 if it would cause mesothelioma. Group with
10 saltwater, group with asbestos, not talc, but
11 asbestos, and then Johnson & Johnson's Italian
12 talc. There was a study, Wagner and Pooley. I
13 mentioned Pooley, famous scientist. No
14 mesothelioma in the saltwater. It's kind of a
15 control group in an experiment. 18 when there was
16 asbestos. And when they injected them with
17 Johnson & Johnson's talc, no mesothelioma. Real
18 world science, ladies and gentlemen, and common
19 sense science.

20 So that's the common sense. People using the 10:45:3
21 products all over the world, many different
22 environments, barbers, miners, millers. Johnson &
23 Johnson testing using the best methods. Nobody's
24 saying there's any concern. The science is showing
25 the exact opposite.

1 So that brings us to Chapter 4. As I said 10:45:5
2 before, a very kind woman from our perspective, I
3 don't know her personally, but I've seen her
4 deposition in Kokomo. By all measures, really a
5 lovely person. But I just want to focus on the
6 evidence here, because this is important. She
7 worked for 42 years at the Delco plant in Kokomo,
8 Indiana. 42 years. And the claim in the case from
9 the plaintiff, not us, but the plaintiff, is she
10 was exposed to asbestos at that plant. It's not
11 clear for how many years. Sometimes I hear them
12 say it was five years that there was pipe work
13 going on. Sometimes I see nine years. We'll have
14 to wait for the evidence on that.

15 But that's where she worked, 42 years at that 10:46:4
16 plant. And I want you to hear her testimony. This
17 is very important. It'll come up at the end of her
18 deposition.

19 (Video played at this time.) 10:46:5

20 MR. BICKS: Pipes being cut, plaster worked on 10:47:2
21 at where she worked. That's what the evidence is
22 going to show. And what the evidence is also going
23 to show is what some of these products were. Pipe
24 insulations, gaskets, spray insulations. You'll
25 hear the evidence on that. These are products that

1 intentionally had asbestos in them. And some of
2 them had lots of asbestos. And some of them had
3 commercial asbestos called amphibole asbestos,
4 which was crocidolite or amosite, which can be some
5 of the most dangerous. And you don't have to
6 accept my words. This is from the plaintiffs' own
7 expert in this case who they've hired, and he said,
8 "She was highly likely exposed to asbestos at Delco
9 when she worked there. She would have inhaled air,
10 exposed to airborne asbestos. Each time that
11 happened, it would have been well above background
12 levels."

13 Remember I said the background, background in 10:48:2
14 the air, well above. This is what the plaintiffs
15 are saying in the case, not Johnson & Johnson.

16 This is important evidence, ladies and 10:48:3
17 gentlemen. It's what I call the fingerprint. We
18 talked a little bit about CSI. There's something
19 called an asbestos body. A test was done on
20 Ms. Lewis and an asbestos body was found. It's
21 down there to the bottom. It's kind of got that
22 orangey feel on that. It's a consequence of iron
23 being found in certain staining. That will be
24 evidence, according to at least some of the
25 experts, that suggests that commercial asbestos got

1 to her lung. And that's commercial asbestos most
2 likely from the Delco facility, because her
3 expert -- the plaintiffs' expert, will say that she
4 was most likely exposed to amphibole commercial
5 asbestos at that facility, and here at least is a
6 fingerprint of that. You'll hear about that
7 evidence.

8 You will also hear that one of the really 10:49:3
9 interesting things is that cancer can occur from
10 naturally occurring genetic errors. We all know
11 that we don't know all the things about cancer. We
12 wish we did, but we don't. And many occur
13 naturally because of genetic errors in our bodies.
14 The data will be and the science will say that more
15 than 50 percent of mesotheliomas in women are
16 naturally occurring. That means not related to
17 asbestos or any specific cause. So that's kind of
18 the two paths, I think, we're looking at, naturally
19 occurring or something at Delco where she was
20 working for 42 years, and some portion of that,
21 we'll have to see how long, five, six, seven, she
22 was around people who were working on commercial
23 pipe removal and things like that.

24 Common sense. That's what common sense. The 10:50:3
25 evidence in this case will show that talc is not

1 the culprit here. Talc is the scapegoat. And
2 you'll listen to all the evidence on that. But
3 that's what common sense will be.

4 Chapter 5 is misdirection. What's going to 10:50:5
5 happen in the courtroom based on the evidence.
6 You've heard all of these independent scientists
7 who have looked at Johnson & Johnson's talc and say
8 it's clean. And there are a lot over time.
9 Government entities, labs, scientists from major
10 universities, good scientists have looked at that.
11 In fact, in this case, two of the plaintiffs'
12 bottles, the only two that she had -- we don't
13 criticize her for that, people don't keep talc
14 bottles their whole life.

15 But she had two and they were tested. They 10:51:3
16 were tested by an expert that the plaintiffs hired.
17 He used the three microscopes that Johnson &
18 Johnson used, XRD, PLM, TEM, and I believe he even
19 used the concentration method, that liquid density
20 separation method, no asbestos in those two
21 bottles.

22 All of these entities, including somebody 10:51:5
23 hired by them to test her bottles, say that there's
24 no asbestos. So who do they turn to? Dr. Rigler.
25 He'll be here maybe this week. He only talks about

1 talc in the courtroom when he gets hired to come in
2 and tell you that he finds asbestos, when all these
3 entities who have no skin in the game say that
4 there is no asbestos. And I'm going to ask him
5 some questions: Have you ever personally tested a
6 talc sample, did you visit a mine, have you
7 published a paper or done a study, are you really a
8 geologist or a mineralogist, and did you actually
9 do the testing yourself in this case, did you get
10 under the microscope. And I think these will all
11 be the answers, but we'll have to see. I can tell
12 you I'm going to ask him those questions, and
13 you're going to compare him to all these other
14 folks.

15 And it's also important to remember what he 10:52:5
16 says that he found. The FDA, when they did that
17 test of a worst-case assumption, they were assuming
18 .1 percent of something called amphibole asbestos.
19 .1 percent. That's not a hazard, so says the FDA.

20 What is Dr. Rigler looking at? .001 percent. 10:53:1
21 Thousands of times less than what the FDA said
22 wasn't a problem is what he says he found. Hundred
23 times lower. Hundred times. And that includes
24 only things where he said he saw something. Many
25 of the bottles he says he didn't see any asbestos.

1 So we're talking about infinitesimal amounts.

2 To give you a sense of what .001 percent is, 10:53:4
3 it's like a dime on a football field. That's the
4 infinitesimal amount that we're talking about here.
5 It's really important to keep that in mind. A dime
6 on a football field. That's what .001 percent --
7 and we're going to disagree with them. We're going
8 to side with all those other institutions who have
9 looked at the talc and said there's no asbestos in
10 it. We're going to look at all the epidemiology
11 and say, if there was a problem, it would be in all
12 the science, not in a courtroom science, but real
13 science, where people had to get it right.

14 This is going to be interesting, I hope, if 10:54:2
15 you like science. I find it a little complicated,
16 but I've learned it. Asbestos is a generic term
17 for certain subgroups of minerals. And just
18 because you see the word fiber, it doesn't mean
19 it's asbestos. And when you say amphibole, that's
20 not always asbestos. Talc is not asbestos. So
21 important. Talc doesn't cause mesothelioma. The
22 experts will say that. And talc doesn't suddenly
23 magically change into asbestos. In fact, it
24 doesn't turn into asbestos. Asbestos never turns
25 into talc either.

1 So this is a lot, but it's kind of important. 10:55:1
2 You will see amphibole family, three different
3 types, actinolite, anthophyllite, and tremolite.
4 There's two forms of it, very important, an
5 asbestiform and a nonasbestiform. Very important
6 to keep that in mind. And you'll learn more about
7 it. So if you're looking at it now saying, whoa,
8 that's a lot, stay with us. We have really good
9 people who will walk you through it.

10 Just a picture, because it's a thousand words. 10:55:4
11 Tremolite to the right, actually jade jewelry comes
12 from tremolite. Tremolite asbestos is to the left.
13 One isn't asbestos, the one to the right. One is.
14 And you can see it right here. And when you take
15 that common tremolite, the green, and you hit it
16 with a hammer, it doesn't make it asbestos. You'll
17 see that in the United States, there is amphibole
18 in the soil everywhere, that tremolite, everywhere
19 in the United States. And you will hear it and see
20 from all the agencies that asbestiform variety is
21 very different from asbestos and nonasbestos. And
22 when they say asbestos, they're talking about the
23 asbestiform. OSHA amends the revised asbestos
24 standard to remove nonasbestiform tremolite. MSHA,
25 it's a mining body, does not include nonfibrous or

1 nonasbestiform minerals. Same thing with NIOSH.
2 You'll learn these definitions, but they're going
3 to be very, very important.

4 Kind of like this, I thought it would be 10:56:4
5 helpful to understand it. Cranberries and holly.
6 Similar. One is harmless. One isn't. Mushrooms,
7 most mushrooms are fine. Occasionally, in some far
8 off places, I gather, there are poisonous ones. A
9 house plant can be fine, but it can also be poison
10 ivy. These names and distinctions matter, ladies
11 and gentlemen. In science, precision is important.
12 So please bear with us on that.

13 You'll hear from Dr. Sanchez. He's been to 10:57:2
14 these mines and he's taken samples and he hasn't
15 found asbestos. And you'll hear from him.

16 This is before and after breaking up that 10:57:3
17 rock. It doesn't take something that's not
18 asbestos and make it into asbestos. And you'll
19 hear Dr. Rigler call things asbestos that are not.

20 All of the agencies who have looked at the 10:57:4
21 question of this nonasbestiform fragment, is it a
22 health issue, they say, no, it's not. Of course,
23 if it was a health issue, it would be reflected in
24 all the studies of all the talc miners and all the
25 folks who have been around this.

1 So here is what I say the five things to watch 10:58:0
2 out for, what I call the misdirections. Is it the
3 right product? Is it the right mine? Is it the
4 right material? Is it spiked? Is it actually
5 asbestos? All of these differences, when you look
6 at documents from 50 years ago, you're going to
7 have to kind of keep your feelers up when you start
8 seeing things.

9 The reason is you heard about Dr. Blount. The 10:58:3
10 interesting thing about her, and you'll hear her
11 testimony, is that the actual little handwritten
12 chart doesn't match up to the table in the art.
13 And she actually had her deposition taken, and she
14 said, I didn't make good enough record, and I think
15 some of these things got mixed up. So listen very
16 carefully to that evidence about Dr. Blount and her
17 samples and sample I. Very important evidence.

18 Different mines were used in Vermont. Some 10:59:0
19 were industrial, and some were cosmetic. Johnson &
20 Johnson only used cosmetic mines for baby powder,
21 but there was also industrial mining going on for a
22 short period of time. So when you see a document
23 that somebody goes into an industrial mine and goes
24 300 feet into the ground to take out a core sample
25 in some far off area, and they said, oh, we think

1 we could have found some spec of asbestos, be
2 careful. The question is, did it come from the
3 right mine and was it actually used in a product.

4 You'll see this HC, Hammondsville cosmetic. 10:59:3

5 Sometimes that was used to refer to industrial
6 talc. So be on the lookout when you see HC.

7 Sometimes it's industrial. And here are examples.

8 There's roofing material, it can be used there. So
9 you have to be very careful about what mines and
10 what talc.

11 Sometimes they spiked samples to see if their 11:00:0
12 testing procedures were working well. So they put
13 asbestos in it to make sure that they were picking
14 it up, so you'll see something where they spiked.
15 Be careful about people who take documents out of
16 context.

17 You see the word tremolite. Tremolite doesn't 11:00:1
18 mean asbestos, just like a mushroom doesn't mean
19 it's poisonous. It should say tremolite asbestos.
20 So if you see a document that says tremolite, watch
21 out. Does it say asbestos, or does it just say
22 tremolite?

23 I put this up because I kind of thought it was 11:00:3
24 cool. Cherry-picking. It's very easy to take one
25 document out of context, but I want you to hear and

1 see the whole document and hear the whole story.
2 And that's what common sense is going to do.
3 Decades of testing, the world's best experts can't
4 be wrong. Everybody in the world can't be wrong.

5 Chapter 6, this courtroom. Where do we go 11:00:5
6 from here? The Lewises bear the burden of proof.
7 We don't have to put on any evidence if we don't
8 want to. And you need to put sympathy aside. I
9 know it's tough, particularly when you start
10 with -- that's why we talked about it and Judge
11 Hannah will instruct on that. She will say what
12 the law is.

13 And so at the end of the day, the evidence 11:01:1
14 will show three things: Johnson & Johnson's baby
15 powder was not contaminated with asbestos,
16 Johnson & Johnson's baby powder does not cause
17 mesothelioma, and Ms. Lewis' mesothelioma was not
18 caused by Johnson & Johnson's baby powder.

19 Thank you. On behalf of Ms. Malik and 11:01:4
20 everybody at Johnson & Johnson, we really
21 appreciate it. Thank you very much.

22 THE COURT: Thank you. Now defendants need a 11:01:5
23 minute to get set up for the next speaker, and so
24 you're welcome to stand up while they're doing
25 that, if you're tired of sitting down. And the

1 other thing is, I wanted to give you just a little
2 bit of information about the day.

3 You heard yesterday that -- you know, we went 11:02:0
4 long, we left early yesterday, and then I said we
5 might go a little bit late today to get caught up.
6 The Court would like to go until 5:30 today, and I
7 wondered if you all would like to make arrangements
8 so that you could stay late today. And that would
9 get us back on track.

10 Is that something that everybody -- I don't 11:02:2
11 see anybody shaking no. So okay. And I wanted to
12 tell you as early in the day as I could so that you
13 could make arrangements.

14 The other thing, is, Ms. Sundt, you had 11:02:4
15 mentioned an interview at 4:00 on Friday.

16 PROSPECTIVE JUROR: Yes, ma'am. 11:02:4

17 THE COURT: And I've also told counsel that 11:02:4
18 the Court will make arrangements for you to be able
19 to do that here. And we'll finish -- at least
20 we'll stop before 4:00 so you can do that.

21 PROSPECTIVE JUROR: Thank you. 11:02:5

22 THE COURT: We appreciate the sacrifice you're 11:02:5
23 making, but it doesn't have to be all of your
24 livelihood.

25 (A discussion was held off the record.) 11:04:3

1 THE COURT: Mr. Drumke, are you ready? 11:04:4

2 MR. DRUMKE: I think so, Your Honor. 11:04:5

3 THE COURT: Then you may begin. 11:04:5

4 MR. DRUMKE: May it please the Court. 11:05:1

5 THE COURT: You may begin. 11:05:2

6 MR. DRUMKE: Good morning, ladies and 11:05:2
7 gentlemen.

8 JURORS: Good morning. 11:05:2

9 MR. DRUMKE: We met before very briefly. I'm 11:05:2
10 Mike Drumke. I represent Kerr Corporation. Kerr
11 Corporation was founded in 1891 by two brothers in
12 Detroit. It is a company that supplies dental
13 materials to retailers who sell the stuff to
14 dentists. We did not make the product in question
15 in this case. We didn't manufacture it. We
16 packaged it and we sold it to somebody else.

17 I want to thank you for your time this morning 11:05:5
18 on behalf of Kerr Corporation. I know it's not
19 convenient to serve on a jury. I know people have
20 other obligations, professional and otherwise, to
21 attend to, and we appreciate your time. We will
22 try to be as respectful as we possibly can,
23 although you saw yesterday that sometimes the best
24 laid plans go awry and we can't always control the
25 schedule. But we'll do our very best.

1 Let me talk about the key points in the case 11:06:2
2 from my client's perspective, and there are three
3 of them. I'll try not to walk in front of the
4 screen.

5 You heard Mr. Bicks talk about Ms. Lewis' 11:06:3
6 employment at the Delphi/Delco plant in Kokomo.
7 She was there for decades, and you heard Mrs. Lewis
8 testify on video about her exposure to asbestos at
9 that facility. And you'll hear some more about
10 commercial amphiboles and types of asbestos and
11 things like that, and I'll talk a little bit more
12 about those, and Mr. Bicks alluded to them before.
13 But that's the type of thing that she would have
14 been exposed to at Delphi/Delco.

15 You'll also hear her talk about her work at a 11:07:1
16 dentist's office for seven or eight months in 1966.
17 What that amounted to was cutting dental tape for a
18 few seconds, maybe as many as 25 seconds in a busy
19 week, once a week. Once a week, zero to 25 seconds
20 of just cutting a couple strips of dental tape.
21 That's it. She wasn't a lab technician. She
22 didn't manipulate the tape. She didn't build
23 crowns. She didn't break crowns apart. She cut
24 the tape. She put it in a tray for the dentist to
25 use. He came in, he did the work. There's some

1 testimony that she might have wiped something down
2 or picked something up off the floor. We really
3 don't know the extent of that. There's also
4 testimony that the dentist had a cleaning service
5 come in at night to clean things up. So really
6 what we're talking about is a few snips for a few
7 seconds of dental tape.

8 The other thing to keep in mind, the other key 11:08:1
9 point is that Kerr acted safely and reasonably in
10 1966. You heard Mr. Finch say he's not going to
11 hold us responsible for what was known or knowable
12 today. That wouldn't be fair. What's known or
13 knowable about dental tape and the hazards of
14 asbestos used by dentists in 1966 is where we have
15 to focus and what was known and knowable back then.
16 I don't know much about what was known or knowable
17 in 1966 personally because I was born that year,
18 during the Johnson administration. It was a long
19 time ago.

20 Before I go any further, though, I said it in 11:09:0
21 voir dire. I'll say it again. Mesothelioma is a
22 horrible, tragic disease. It is painful. It is a
23 terrible way for someone to die.

24 And we at Kerr extend our deepest sympathies 11:09:1
25 to you, sir, to your family, to your beautiful

1 daughter, and to your lovely wife. We're very
2 sorry, and all of our sympathies to you, sir.

3 But we're here because we don't think we 11:09:3
4 caused Mrs. Lewis' disease, and I want to explain
5 to you why that is.

6 Years of asbestos exposure at Delphi/Delco, I 11:09:4
7 won't go over what Mr. Bicks said, I'll try and
8 shorten that up a little bit, but what does that
9 look like if we just sort of plot that out?

10 Ms. Kerr -- or Ms. Lewis is talking about seven to
11 eight months working for a dentist in 1966. She
12 was at Delphi/Delco for a much longer period of
13 time, decades working in that facility, doing
14 different jobs. May have been working directly
15 around people manipulating industrial asbestos,
16 maybe not. But she had, by her own testimony and
17 by her expert's own admission, substantial asbestos
18 exposure to asbestos at that facility. When she
19 was deposed 53 years after having left the
20 dentist's office, she was shown a wide array of
21 pictures of dental products and singled out Kerr as
22 the one.

23 Now, you'll have to use your common sense and 11:10:4
24 think about what you can remember from 53 years ago
25 and whether her memory might, in fact, be accurate.

1 But we have no way of knowing anything about what
2 happened there other than Mrs. Lewis' testimony.
3 There's nobody else from the dental office that's
4 going to come in and tell you that Kerr was there.
5 There's no receipts from the practice. We wouldn't
6 expect that there might be. But there's no other
7 objective evidence about what Mrs. Kerr did other
8 than -- Mrs. Kerr, I'm sorry, what Mrs. Lewis did
9 other than what Mrs. Lewis says she did, all right.
10 So let's see what Mrs. Lewis said.

11 Mrs. Lewis started working for Dr. Maxwell the 11:11:2
12 second semester of her senior year, all right. Not
13 her senior year, the second semester of her senior
14 year. For most of us, that means January, right.
15 Mrs. Lewis continued to work for him through the
16 summer of 1966 until she left to start the job at
17 Delphi/Delco. So by the fall of 1966, either in
18 August or September of 1966, she had left the
19 dentist's office and was working at Delphi/Delco.

20 What happened was, she was laid off after a 11:12:0
21 couple of months at Delphi/Delco. So she went back
22 to Dr. Maxwell -- that was the name of the dentist
23 she worked for -- for a period of time, until the
24 middle of 1967. However, this is important for you
25 to remember. When she went back to Dr. Maxwell the

1 second time, he had moved his practice to a
2 different location, and he had outsourced the crown
3 work that he had been doing himself, all right.
4 Today, many dentists will send stuff offsite. It's
5 cheaper, it's more efficient, they don't mess with
6 it, okay. Back then, Dr. Maxwell had been doing
7 some lab work at his first office. When she came
8 back, and Mrs. Lewis told us this, she was no
9 longer helping cut the strips of asbestos to
10 prepare the trays to make the crowns in his lab.

11 So the only period of time -- there wasn't 11:12:5
12 even a lab in the second office. The only period
13 of time that Mrs. Lewis did anything with Kerr
14 dental tape was during this period of January to
15 August or September -- July or August of 1966.
16 Eight months. That's it.

17 And what did she do? She would make setups 11:13:1
18 for the dentist. I will explain to you in a
19 minute, as best I can, how crowns were made back in
20 the day. But what was necessary was there was a
21 tray, a red tray, she called it a lab tray. And
22 she would lay out all the materials in the tray for
23 him to put the crown together. So that included
24 strips of dental tape, would have been a casting
25 mold, a rubber base, wax, things like that. That

1 was all laid out for him to work with in the tray.
2 She would just set that up, and then that was it.
3 She had no further involvement. All the other work
4 with the material was by Dr. Maxwell. He made the
5 crowns. She just set it up.

6 And you heard Mr. Finch talk about this book 11:14:1
7 here by Dr. Selikoff, and it talked about medical
8 technicians or lab technicians, okay. Mrs. Lewis
9 is not a lab technician, all right. She was a
10 dental assistant who laid some stuff out on trays
11 for a couple afternoons a month so the doctor could
12 make his crowns. To say that she was a lab
13 technician would be -- and I don't mean to
14 disparage Mrs. Lewis. That's not what she did at
15 all.

16 So this is from Mrs. Lewis' testimony. She 11:14:5
17 talks about her responsibilities to set up the
18 products, that the tray was like a bread pan, and
19 that she would add whatever she was supposed to add
20 to the tray. And sometimes she would set up one
21 tray. Sometimes she would set up three or four.
22 Sometimes she would set up none. If he didn't have
23 lab work to do that week, there was no cutting of
24 asbestos dental tape. There was no anything. She
25 didn't mix anything or set anything up. There was

1 no powder or anything else. She just put the wax
2 and the dental tape on the trays and put it on his
3 workbench.

4 You'll hear that the dental tape came in a 11:15:3
5 roll, and she would cut the strips from the roll
6 and place them in each container on the tray and
7 that when she -- after she cut those strips, she
8 didn't do anything else with them. And you will
9 hear that she was not tearing or manipulating the
10 strips, simply making cuts with a pair of scissors,
11 one, two, three. Three-inch lengths, just like
12 Ms. Farinas said. Some weeks Dr. Maxwell didn't do
13 any lab work. He never did more than four or five
14 crowns in a week. And it was always once a week.
15 He would set aside -- she didn't remember if it was
16 Tuesdays or Thursdays, but either Tuesday or
17 Thursday afternoons, he would do lab work, once a
18 week. We'll call it Thursdays for our purposes, as
19 it's only once a week. It took her a second to
20 make a cut for the dental tape. It would take her
21 five seconds to cut three pieces she said.

22 So working with Dr. Maxwell, Mrs. Lewis made 11:16:3
23 one -- made zero and 15 cuts of tape a week.
24 That's it. So she didn't manipulate it in any
25 other way.

1 So what does that look like? This is her work 11:16:5
2 history in the lab for Dr. Maxwell. A maximum of
3 34 days. If she is doing what she said she's
4 doing, some of these days are blank. Some of these
5 Thursdays have no lab work at all. Some of these
6 Thursdays may have a crown to do, so five seconds
7 of cutting tape. Some of these days may have as
8 many as five crowns, so 25 seconds. So you're
9 looking at perhaps a hundred seconds a month,
10 maximum. Maximum. That's not a lot of time,
11 ladies and gentlemen. It's nothing.

12 This is what rolls of dental tape look like. 11:17:4
13 It's a material. She described it about one inch
14 wide. That's what she would cut. So zero to 15
15 pieces of this material is being cut once a week.
16 Zero to 15 seconds of cutting, maybe as many as 25,
17 but on average, zero to 15.

18 Asbestos was in our -- was in the product that 11:18:1
19 we distributed. We don't dispute that, okay. But
20 going back in time, and as Mr. Bicks said and as
21 Mr. Finch said, asbestos was used in a lot of
22 materials. It was considered a strategic mineral
23 during the second world war. It was used
24 extensively in ships to control fire in ships.
25 Part of the ship got hit or something caught fire,

1 the sailors were in danger, there was insulation up
2 and down Navy ships throughout the war and into the
3 '60s and even into the '70s. It was considered a
4 critical war material back in the time.

5 When the troops came home after the second 11:18:5
6 world war, it was in building materials. I think
7 one of the prospective jurors yesterday talked
8 about a house that she walked away from because she
9 didn't want to deal with it, but there's asbestos
10 siding, there's asbestos tiles. There may be
11 asbestos tiles in this courtroom for all we know.
12 It's a pretty common material. And it was durable,
13 and that's why it was used. And it was used in a
14 lot of consumer products. It was incorporated in
15 things from ironing board covers to paints to roof
16 coatings, you name it.

17 We have all been exposed to asbestos. There's 11:19:2
18 asbestos in car brakes, or at least there has been
19 for a long time. In the ambient air, in cities
20 like Indianapolis or Chicago, Cleveland, there's
21 asbestos in the ambient air that we all breathe.
22 This is a number that you're going to hear a lot or
23 a figure you're going to hear a lot about in the
24 trial. We'll be talking about fibers per cc. What
25 does that mean? It's a technical term that

1 industrial hygienists use to measure exposure,
2 okay. But for our purposes, what that means is
3 that each of us, at all times are being exposed to
4 asbestos at about this level. .0008 fibers per
5 cubic centimeter of air over an eight-hour average
6 period, okay.

7 And as Mr. Bicks said, there's 325 million 11:20:2
8 people in the United States. There's about 3,000
9 cases of mesothelioma a year that are diagnosed.
10 So we're all being exposed, and while Mr. Finch
11 likes to repeat over and over again that there's no
12 safe level, all of the experts in this case will
13 tell you that this level does not cause disease.
14 Dr. Brody's going to tell that you this afternoon
15 when he comes. He's going to tell you, this is not
16 a problem, all right. And that equals billions of
17 asbestos fibers in an average life span.

18 How does that calculate over a 71-year period? 11:21:0
19 Mrs. Lewis is 71 years old. If she's being exposed
20 or if a 71-year-old person is being exposed at .008
21 fibers, at that level, that equals what industrial
22 hygienists call a fiber year, .25, a quarter of a
23 fiber year, all right. How does that compare to
24 her exposure to dental tape? You will hear one of
25 our experts come in and talk about a study that was

1 done in terms of cutting. The number is .005.
2 That is her exposure from cutting dental tape on a
3 time-weighted average over an eight-hour period.
4 Remember she only did it for 25 seconds a week, if
5 at all.

6 Even assuming she was exposed at that level 11:21:4
7 for her entire lifetime, that number comes out to
8 .0003. This is lifetime and walking around the
9 streets of Indianapolis. This is what she was
10 potentially exposed to working for the dentist for
11 eight months in 1966. And that's what that looks
12 like. That's the comparison. On the left is your
13 lifetime exposure to asbestos fibers. On the right
14 is her potential exposure from cutting her
15 asbestos-containing tape.

16 A few seconds of snips of dental tape. Kerr 11:22:3
17 acted responsibly. How can I stand up and tell you
18 that? Let me explain a little bit about Kerr. As
19 I told you, it's a company that distributes dental
20 supplies, all kinds of things. These lovely vests
21 you all wear when you get x-rayed at the dental
22 office that weigh 40-pounds, right, really not very
23 comfortable, mixes, all kinds of things that are
24 used to help dentists do their work.

25 For those of you who have never had the 11:23:0

1 enjoyment of having a crown or inlay, you flossed
2 every day, you brushed your teeth every day, that's
3 what a crown looks like. That is a gold crown. It
4 was actually a tremendous material, very well
5 suited to replace decaying teeth. This is an
6 inlay. I know what an inlay is because I have a
7 bunch of them because I was not a good boy when I
8 grew up. I did not brush my teeth like my mother
9 told me. I have a lot of inlays. They're not
10 gold.

11 How is a crown made? It's kind of an
12 interesting process. I won't go into too much
13 detail, but there is something -- it is cast, and
14 it is cast using what is called a lost wax method,
15 all right. There is a pattern of a tooth made in
16 wax from a die. For anybody who's ever had braces
17 or has ever had a crown made, they take a tray that
18 looks like a mouth guard. They put it full of this
19 stuff, they stick it in your mouth, and they jam it
20 up top, right. It's a lot of fun. And you sit
21 there until it solidifies, and then they pry it out
22 and they pull out again. And that's how they make
23 an impression of your tooth. They pour what's
24 called dental stone into that to model the tooth.
25 And that's what the die is, okay.

11:23:3

1 So now they have a model of the tooth they're
2 going to replace, and they put wax over the top of
3 that to make a mold. That mold is then attached to
4 what's called a sprue, just a stem, and it's put
5 inside a casting ring. The casting ring is about
6 yea big. Some are a little bit bigger, some are a
7 little bit smaller, but about yea. And that
8 casting ring is lined with dental tape. Why is it
9 lined with dental tape? Because the material that
10 goes -- that gets poured inside this mold is made
11 from silicone. It expands as it dries. It has a
12 thermal component. In order not to screw this part
13 up when the dentist is making his crown, you had to
14 allow for expansion on the outside, and the casting
15 ring is solid metal, so it doesn't give. Asbestos
16 was the perfect state of the art material at the
17 time to make gold crowns because it allowed for
18 that expansion inside the casting. That's why it
19 was used.

20 After the material, the investment or
21 investing hardens, it's put into a furnace. The
22 wax is melted out, and you've got a perfect mold.
23 You then pour the gold inside, and that makes your
24 casting or your crown. You take it out, you break
25 off the stem, and you've got your crown.

11:24:2

11:25:3

1 So these are the materials that I was telling 11:26:0
2 you about. That's the impression that originally
3 makes -- gets stuck in your mouth. These are
4 casting rings. This is a casting ring with the wax
5 mold with the sprue inside, and you can see here
6 that is the dental tape. That's what allows this
7 material to expand and contract properly for proper
8 fitting crowns.

9 Why is that important? Well, and then that's 11:26:3
10 the heating process that melts the wax out, and
11 then you get your perfect cast that you can pour
12 your gold into.

13 Why was this important? Back in the 1920s and 11:26:4
14 1930s, people had really lousy crowns. They were
15 having problems. They weren't fitting properly.
16 They would get infected. People would develop
17 serious medical problems because the crowns weren't
18 working and weren't being fitted right. So in the
19 1930s, the American Dental Association, working
20 with the Commerce Department and the Bureau of
21 Standards, developed a standardized method, this
22 one, for making crowns.

23 So working with the government, the ADA, the 11:27:2
24 professional association for all dentists in
25 America, developed this method to make crowns. And

1 that's why there was asbestos in the product. It
2 worked better than anything. It was the perfect
3 material to control that heating and expansion.

4 As I mentioned to you, Kerr did not make this 11:27:5
5 product. Dental tape that Kerr distributed to
6 dental supply companies was manufactured by one of
7 two companies, either a company called Nicolet or
8 Celotex. Kerr got the material, boxed it. It went
9 to the dental supply companies. It went to the
10 dentists.

11 What's known or knowable in 1966 is not much. 11:28:2
12 It's all fine and well to talk about Dr. Selikoff
13 in 1965, which is the year Mrs. Lewis started her
14 senior year of high school. But he's talking about
15 insulators, and he's not telling anybody at that
16 time to ban asbestos. What he's telling people
17 actually, one of his recommendations was that
18 insulators should stop smoking, because there's a
19 synergistic effect of smoking and asbestos
20 diseases. That was one of his recommendations at
21 the time. There's nothing in anything that
22 Mr. Finch showed you that talked about dentists or
23 dental technicians or dental lab technicians in
24 1966 or before.

25 This process that I just showed you was being 11:29:1

1 used in the 1930s, '40s, '50s, '60s. There isn't a
2 single case report of dentists developing
3 mesothelioma, dentists who worked full-time with
4 this material, or lab technicians or dental
5 technicians who did that job day in and day out.
6 Not for eight months, for 25 seconds a day, once a
7 week. Talking people, full-time professionals in
8 the industry, there isn't a single case report that
9 the plaintiffs are going to be able to show you
10 from 1966 or before that identifies asbestos as a
11 hazard in dentistry or that dentists were getting
12 sick or that dentists were developing mesothelioma.
13 Full-time people. Mrs. Lewis had seconds of
14 exposure.

15 Mr. Finch talked to you about one day of
16 exposure is enough to cause mesothelioma.
17 Mrs. Lewis didn't have one day of exposure to Kerr
18 dental tape. Then he moved the goal post a little
19 bit and he said a few hours. Mrs. Lewis did not
20 have a few hours of exposure to Kerr dental tape.
21 Mrs. Kerr didn't have half an hour of exposure to
22 Kerr dental tape. She didn't have 15 minutes.
23 Seconds per week for seven or eight months at most.
24 That was her exposure to our product, and the graph
25 with the dots explains what that means in terms of

11:30:0

1 what you and I are exposed to every day.

2 That's why Kerr acted responsibly. There was 11:30:4
3 no reason to believe in 1966 that that product,
4 particularly in the way that Mrs. Lewis was using
5 it, would cause a problem for anybody. There was
6 no alerts, hey, dentists, you're getting sick,
7 nothing. And they won't be able to show you any.

8 So these are the key points I want you to 11:31:1
9 remember, please, as to Kerr. It was Mrs. Lewis'
10 years of exposure at the Delphi/Delco that caused
11 her mesothelioma, not a few seconds of snips of
12 dental tape over a few months in 1966 when she was
13 setting up trays for Dr. Maxwell. My client acted
14 safely and reasonably in providing dental tape to
15 dentists to make dental prosthetics because there
16 was no reason to believe at that time that that
17 product could potentially cause a hazard to
18 anybody.

19 Thank you very much for your time. 11:31:4

20 THE COURT: Thank you, Mr. Drumke. 11:31:5

21 Well, we have one more defendant to hear from. 11:31:5
22 So thanks for your continued attention.

23 MS. WEGLARZ: And Your Honor, we just need to 11:32:0
24 switch the PowerPoints really fast, so if you can
25 give us a few minutes.

1 (A discussion was held off the record.) 11:33:0

2 MS. WEGLARZ: May I begin? 11:33:1

3 THE COURT: You may, thank you. 11:33:1

4 MS. WEGLARZ: Good almost afternoon, ladies 11:33:1
5 and gentlemen. My name is Claire Weglarz, and I
6 along with my colleague, who you had met yesterday,
7 Edd Harney, have the privilege of representing BMW
8 Constructors in this case. And as Edd told you
9 yesterday, BMW Constructors has no relationship to
10 BMW the car company. It's a totally different
11 company.

12 BMW Constructors is an Indiana company. It 11:33:3
13 was founded in 1955 by Mr. Baker, and its
14 headquarters are still housed in the same building
15 where it began in 1955, which is only about two and
16 a half miles down the street on West Michigan
17 Street.

18 And I want to make it clear at the outset that 11:33:5
19 BMW Constructors never designed, never
20 manufactured, and never sold any products, and that
21 includes asbestos-containing products. What BMW
22 Constructors is, it's a company that provides
23 services to -- services such as they're called
24 mechanical contractor services. So what they will
25 do is they will go into commercial and industrial

1 buildings and they'll do work on pipes. They'll
2 do -- working on valves and pipe fittings. They'll
3 do HVAC work. They'll do plumbing work on the pipe
4 side.

5 BMW is here -- and you haven't heard that much 11:34:4
6 about BMW. I'm sure you noticed that when
7 plaintiffs were asking you questions in voir dire,
8 they did not mention anything about BMW. Opening
9 statement, there might have been maybe two slides
10 of our logo. But BMW's here because it takes issue
11 with the very serious claim that's being made
12 against it by plaintiffs, and that claim is that
13 BMW somehow conducted itself in a way that caused
14 Ms. Lewis' cancer. Blaming someone or in the case
15 of BMW, a group of people, for giving someone
16 cancer is a very serious accusation. And if you're
17 going to accuse a company of causing someone's
18 cancer, even if you're not going to say that much
19 about the company, you better have some facts to
20 back that up. And those facts are not here.

21 You haven't heard that much about BMW, and the 11:35:4
22 reason why you haven't heard that much about BMW,
23 because in this case, there are not that many facts
24 about it. But all the same, they're blaming BMW,
25 so I'm going to take the next hopefully maybe ten

1 minutes to tell you about why BMW has nothing to do
2 with Ms. Lewis' mesothelioma.

3 You've heard about Ms. Lewis' work at Delco a 11:36:2
4 little bit, and it's true, BMW did do some
5 occasional work at Delco. Delco in Kokomo is a
6 large facility. There's several plants. And
7 throughout the years, BMW was at the facility. And
8 at some of those plants, they did some construction
9 remodeling work.

10 Plaintiffs said in their opening statement 11:36:4
11 that there's not going to be any dispute that BMW
12 Constructor employees worked around Ms. Lewis.
13 There is going to be a dispute about that, and
14 you'll hear her talk about that when you see her
15 testimony.

16 So what did Ms. Lewis tell us in her 11:37:0
17 deposition about her work at Delco? Well, she told
18 us that she had several different jobs at Delco.
19 In August of 1967 through 1969, she worked in
20 plant 1, which they called the radio plant. This
21 is where they made radio parts. And she worked at
22 one of those long assembly lines. And she'd sit
23 there working on the same kind of component day in
24 and day out. She did that for about almost two
25 years.

1 In 1970, she moved to a different location. 11:37:4

2 She moved to plant 7, and that's a plastics
3 department. In plant 7, she was a clerk. She's no
4 longer working on the assembly lines. She's having
5 this clerk kind of job.

6 In 1979, she moved to plant 9, which is the 11:38:0
7 speakers department, and she moves into a different
8 job. Now she's an administrative assistant. It's
9 more of an office job. And she also then moves to
10 plant 10 and still continues to be this
11 administrative assistant office kind of job. What
12 she told us when we had the opportunity to depose
13 her is that when she worked in plant 7, 9, and 10,
14 she never saw any remodel or construction work
15 going on around her. None.

16 Now, you did hear when Johnson & Johnson was 11:38:4
17 giving their opening statement, you heard a clip of
18 her talking about BMW. And I think that was a
19 little out of context, so let me try to put that
20 into context, which is important in this case to
21 keep things in context.

22 So what Ms. Lewis talked about with regards to 11:39:0
23 her work at Delco, she said -- she had three days
24 of deposition. On the first day of her deposition,
25 she told us that she saw some kind of people

1 working on some pipes near her assembly line that
2 she was working on. And she saw them wrapping and
3 unwrapping something. And she was asked, "Do you
4 know who these contractors were that were doing
5 that work?"

6 And she said, "I don't know." 11:39:3

7 On day two, the next day, she's asked again 11:39:4
8 about outside contractors coming in to do the work
9 around her, and she said that it didn't matter what
10 company the contractors worked for. They all -- if
11 you were not a Delco employee and you were someone
12 who just came in as an outside contractor to do
13 work, you wore these navy blue kind of -- she
14 called them overvests. And they all had the same
15 kind of vests. This is how you could tell if
16 someone was a Delco employee or not a Delco
17 employee. So whether or not you were a BMW or
18 maybe you were an insulator contractor or maybe you
19 were some other kind of contractor, you all are
20 wearing the same navy blue vest.

21 Now, on day two, she was also asked a very 11:40:3
22 important question about BMW. The question was,
23 "Do you know if you were exposed to any
24 asbestos-containing products or asbestos from
25 projects or work done by BMW Constructors?"

1 Her answer, "No."

11:40:5

2 Now, four days later, she has a third day of 11:41:0
3 her deposition. And on this third day, she is
4 being asked questions by her own attorneys. And on
5 day three, she's asked again about -- by her own
6 attorneys -- the kind of work she saw in plant 1 on
7 these -- they're air hoses that go underneath the
8 assembly line tables when she was in plant 1. And
9 she says, yeah, I did see BMW work with tape,
10 unwrapping some tape from the pipes on the air
11 hoses. This is tape. This is what she apparently
12 saw. BMW now -- BMW Constructors now wrapping and
13 unwrapping on the air pipes, this.

11:42:0

14 You heard plaintiff's counsel in opening
15 statement talk about her seeing some kind of white,
16 chalky, dust material. I've read all three
17 depositions. You're going to see Ms. -- I'm
18 pointing to the screen, but it might be here or
19 there. You're going to see the video of her
20 talking about what she actually saw at Delco. She
21 not once says anything about a white, dusty, chalky
22 material.

23 And the evidence that the lawyers -- or the 11:42:2
24 evidence that the lawyers talk about, that's not
25 evidence. That's just words we're saying. The

1 real evidence is what is going to come out of
2 Mrs. Lewis' mouth, and you're going to see that.

3 We're going to have an expert come in to talk 11:42:4
4 a little bit about BMW, and we have Mr. Kyle Dotson
5 who's going to come and talk to you. He has a lot
6 of letters after his name. He'll explain to you
7 what all those letters mean. But in general, CIH
8 means he is a certified industrial hygienist. CSP
9 means he is a certified safety professional. BCEE
10 means he is a board certified environmental
11 engineer.

12 And out of an abundance of caution, BMW gave 11:43:1
13 him all the materials that they had in this case to
14 figure out if there was any sort of responsibility
15 on the part of BMW. And when he looked at
16 everything, his opinions are that, based on what
17 Ms. Lewis said with regards to air hoses that she
18 saw work being done, if that was BMW doing that
19 work, there would have been no reason to have any
20 sort of asbestos-containing materials on those
21 hoses.

22 So with regards to, if she really did see BMW 11:43:5
23 Constructors working with tape, there's not going
24 to be any evidence in this case that this tape even
25 contained asbestos. It might have been just this

1 tape, which is a Teflon tape. This might have been
2 all that she saw them doing. And he's going to
3 say, with regards to what he looked at, that the
4 exposure of Ms. Lewis associated with BMW
5 Constructors with regard to asbestos is zero.
6 There's nothing there.

7 I told you I'd be short. I probably said too 11:44:3
8 much already, based on what has already been said
9 about BMW in this case. But regardless, I want to
10 thank you very much for taking the time out of your
11 lives to serve as jurors. This is our last time to
12 directly talk to you until closing arguments in a
13 few weeks.

14 So thank you again for your time. Again, 11:44:5
15 evidence hasn't started yet. As soon as I sit
16 down, that's when the actual evidence in this case
17 will start. And with that, I am going to sit down.
18 Thank you, everyone.

19 THE COURT: Thank you, Ms. Weglarz. 11:45:0

20 We're going to break for lunch now, and before 11:45:1
21 we do that, the Court is going to read an
22 admonishment again. I've told you not to discuss
23 the case and to keep an open mind concerning it.
24 Now you're jurors. You're here. We've not heard
25 evidence yet. But you're not to discuss any

1 evidence or the case with anyone and not to permit
2 anyone to talk to you or in your presence on any
3 subject matter connected with the trial.

4 It's your duty to keep an open mind about the 11:45:3
5 case until it is submitted to you for deliberation.
6 If anyone tries to discuss the case with you, get
7 their name and report it to the Court.

8 Furthermore, during a recess, you should not 11:45:5
9 talk with any of the attorneys, any of the lawyers,
10 none of those people, not even to pass the time of
11 day, because you don't want to give anyone the
12 appearance of impropriety. You must be and appear
13 to be impartial at all times.

14 Now, in addition, and this would be for the 11:46:0
15 jury as well -- or I'm sorry, for the gallery as
16 well, the Indiana Code of Judicial Conduct
17 prohibits broadcasting, televising, recording, and
18 taking photographs in a courtroom and areas
19 immediately adjacent to sessions of court or during
20 any recesses of the trial.

21 No still or video photography or audio 11:46:2
22 recordings shall be permitted in the courtroom or
23 adjacent areas. And the only thing you can do with
24 your phones while you're in a courtroom is take
25 notes. So there's not to be any recording or

1 anything else.

2 So thank you, and we'll recess until 1:00. 11:46:4

3 THE BAILIFF: All rise. 11:46:4

4 (Whereupon, the jury exited the courtroom.) 11:46:5

5 THE COURT: All right. We are still on the 11:47:1
6 record. Are there any matters that should come
7 before the Court before we resume at 1:00?

8 MR. DRUMKE: No, Your Honor. 11:47:2

9 MR. GREENE: No, Your Honor. 11:47:2

10 THE COURT: All right, then. Have a good 11:47:2
11 lunch.

12 COUNSEL: Thank you, Your Honor. 11:47:2

13 (A lunch recess was taken.) 11:47:2

14 THE BAILIFF: All rise. 11:47:2

15 THE COURT: Good afternoon, please be seated. 13:02:4

16 Now, are there any matters that we'd like to 13:02:4
17 discuss before we bring the jury in?

18 MS. FARINAS: Your Honor, we had an idea. I 13:02:5
19 believe that we are still trying to work out some
20 things with the Melody Lewis deposition and some
21 other depositions to get those teed up, likely for
22 next week. We are still working through that
23 process, and I think there's a meet and confer
24 scheduled for tonight, or it's being scheduled for
25 tonight on that issue.

1 We were thinking any issues that we couldn't 13:03:1
2 come to an agreement on in our meet and confer,
3 because we are ending a little early tomorrow,
4 maybe we could have your ear for 30 minutes, 45
5 minutes, to do anything that we don't agree on. So
6 those videos could be made -- that video at least
7 of Melody Lewis could be made over the weekend.

8 THE COURT: Do you want those in the morning 13:03:3
9 or in the afternoon?

10 MS. FARINAS: I was thinking -- well, it 13:03:3
11 sounds like we would probably stop at 3:45ish to
12 let her get to her 4:00, so then that leaves us a
13 little bit of a window at the end of the day
14 tomorrow to take up any issues we can't resolve
15 tonight. If we can resolve them, we don't need the
16 time. If we can't, I think there are going to be
17 some issues we can't --

18 THE COURT: Certainly. 13:03:4

19 MS. FARINAS: -- we're going to need your help 13:03:5
20 to help resolve those.

21 THE COURT: I did bring the note from the 13:03:5
22 Lewis video. I said that the parties need to
23 delete from page 12, line 12, to page 13, line 12.
24 And they can begin again on page 13, line 13.

25 MS. FARINAS: Okay. I don't know what that 13:04:1

1 is, but we'll take a look at it.

2 THE COURT: Well, they had -- when I watched 13:04:1
3 it, they had the video here and they had the
4 transcript right next to it.

5 MS. FARINAS: Right. I just I don't have it 13:04:2
6 in front of me. But thank you, Your Honor.

7 THE COURT: It's deleting the part about the 13:04:2
8 letter from the little girls at church.

9 MS. FARINAS: The picture that she made her. 13:04:3
10 Okay. Thank you, Your Honor.

11 THE BAILIFF: Are you ready for the jury? 13:04:3

12 THE COURT: Are we ready for the jury? 13:04:3

13 MR. GREENE: Yes, Your Honor. 13:04:3

14 THE COURT: The Court gave its copy of all of 13:05:4
15 the PowerPoints to Scott, and he'll keep them for
16 the record. But I only -- we only had one. We had
17 two of plaintiffs but one of all the other ones.
18 And I've given it to him.

19 THE BAILIFF: All rise. 13:06:1

20 (Whereupon, the jury entered the courtroom.) 13:06:1

21 THE COURT: Please be seated. 13:06:3

22 Welcome back. I hope everybody had a good 13:06:4
23 lunch and is ready for a busy afternoon. So that's
24 really all the instructions I have, and it's just
25 more a well wish. So why don't we begin.

1 MR. GREENE: Your Honor, the plaintiffs call 13:06:5
2 their first witness, Dr. Arnold Brody, to the
3 stand.

4 THE COURT: Dr. Brody, you can have a seat 13:07:0
5 right up here next to our court reporter. Sir,
6 could you please raise your right hand.

7 ARNOLD R. BRODY, PH.D., 13:07:1
8 a witness called on behalf of the Plaintiffs, having 13:07:1
9 been first duly sworn by the Court, took the stand and
10 testified as follows:

11 THE COURT: Thank you. Please be seated. 13:07:2

12 THE WITNESS: Thanks. 13:07:2

13 DIRECT EXAMINATION 13:07:2

14 BY MR. GREENE: 13:07:2

15 Q Good morning. 13:07:3

16 A Good morning. 13:07:3

17 Q I'm sorry, good afternoon. 13:07:3

18 A Yes, I was going to correct you. 13:07:3

19 Q I'm sure that won't be the only thing you correct 13:07:3
20 me on today, Doctor.

21 Could you state your name for the record. 13:07:3

22 A Arnold R. Brody, B-R-O-D-Y. 13:07:3

23 Q And Dr. Brody, where are you from? 13:07:4

24 A Well, originally from Boston, but I now live in 13:07:4
25 Florida.

1 Q And what is your address? 13:07:4

2 A My address is 1 North Ocean Boulevard in 13:07:4
3 Boca Raton, Florida.

4 Q Doctor, are you married? 13:07:5

5 A 50 -- let me see, 52 years, six grandkids, yes, 13:07:5
6 absolutely.

7 Q Congratulations. 13:07:5

8 A Thanks. 13:08:0

9 Q It is appropriate to call you doctor; correct? 13:08:0

10 A I'm a Ph.D. I have a doctorate, yes, sure. You 13:08:0
11 can call me what you'd like, but that's what people
12 typically use professionally.

13 Q Doctor, I'd like to hand you a document, and I'm 13:08:1
14 going to ask you if you recognize it.

15 MR. GREENE: Your Honor, may I approach? 13:08:1

16 THE COURT: You may. 13:08:2

17 Q Doctor, can you tell me if you recognize that 13:08:2
18 document.

19 A Sure. 13:08:2

20 Q Can you tell me what it is. 13:08:2

21 A Yeah, this is my CV, curriculum vitae. It's a 13:08:2
22 résumé. It has a list of all of my academic
23 positions and where -- papers I've written and
24 where I've been invited to speak at various places
25 around the world.

1 MR. GREENE: And Your Honor, if we could mark 13:08:4
2 that as the first exhibit, I'd like to move that
3 into evidence.

4 THE COURT: And any objection? 13:08:5

5 MR. BICKS: No, Your Honor. 13:08:5

6 MS. MALIK: No, none. 13:08:5

7 THE COURT: All right. The Court shows 13:08:5
8 Exhibit 1 admitted without objection. And it's
9 P-1, I guess.

10 BY MR. GREENE: 13:09:0

11 Q Doctor, could you give me a sense, first, of what 13:09:0
12 your life's work has been.

13 A Uh-huh. Well, professionally, I've been professor 13:09:0
14 in medical school for years, decades. I was the
15 vice chairman of the pathology department at the
16 Tulane Medical School for many years. Taught
17 medical students, graduate students, physicians,
18 and scientists, mainly about how asbestos causes
19 disease. That's been the focus of my career since
20 the early 1970s. And as I say, I've been a
21 scientist and carried out experiments, written
22 hundreds of scientific papers that are in the open
23 medical literature.

24 Q We're going to talk about some of those in a couple 13:09:4
25 of minutes. I want to go back a little bit. Could

1 you tell the jury a little bit about your
2 educational background.

3 A Uh-huh. So after high school in New Hampshire, I 13:09:5
4 went out to Colorado to do a Bachelor of Science
5 degree in zoology. That's the study of animals.
6 Then I went to the University of Illinois,
7 downstate Illinois, where I received a Master of
8 Science degree in anatomy. That was human anatomy,
9 animal anatomy. That's where we learn how all of
10 our parts fit together and function, muscles,
11 bones, nerves, joints, that sort of thing.

12 Then I went back to Colorado to do a Ph.D., 13:10:1
13 the doctorate that I explained, in what's called
14 cell biology. Every living thing is made of cells.
15 We need to understand how cells function. And
16 every disease has a target cell, the cell type from
17 which that disease develops. My focus has been on
18 lung cells over the decades.

19 After the doctorate, Ph.D., I did three years 13:10:4
20 of post-doctoral study at Ohio State University in
21 Columbus and then started my academic career.

22 Q From there, could you just walk us through your 13:10:5
23 academic career. Where did you go from there?

24 A So my first position was as an assistant professor, 13:11:0
25 that's a beginning professor, in the medical school

1 at the University of Vermont. Pathology is the
2 study of disease. I was in the pathology
3 department. I was teaching graduate students and
4 medical students about anatomy and cell biology.

5 And while I was there, I had the opportunity 13:11:1
6 to meet Dr. Chris Wagner. It looks like Wagner,
7 but he was from South Africa. He pronounced his
8 name Wagner. Dr. Wagner was a visitor to the
9 department, and he invited me -- he saw the work I
10 was doing with human lungs, and he invited me to
11 come and work with him in Wales, in the United
12 Kingdom, which is where he was at the time. And he
13 showed me that all the asbestos varieties caused
14 all the asbestos diseases. He showed me that you
15 could use animals, like rats, to understand part of
16 the human disease process. He showed that if he
17 exposed rats to asbestos, they get all the diseases
18 that people do, asbestosis, lung cancer,
19 mesothelioma.

20 And so I took that model back from the United 13:12:0
21 Kingdom where I was working with him and have used
22 that model, along with a number of other ways to
23 study asbestos, in my laboratory. So I was at
24 Vermont for six years. And then I went to the
25 National Institutes of Health, and I was the head

1 of the lung pathology laboratory. Pathology is the
2 study of disease. I was the head of the lung
3 pathology laboratory for 15 years. In 1993 -- and
4 while I was there, I published a series of papers
5 on how asbestos causes lung injury and affects lung
6 cells.

7 In 1993, I accepted a position as a full 13:12:4
8 professor in the medical school at Tulane
9 University in New Orleans, and I was there for,
10 again, almost 15 years. Retired in 2011. In 1999,
11 I was promoted to vice chairman of the pathology
12 department. I retired in 2011. I've been trying
13 to retire since then and continue my academic
14 association with Tulane because, in 2012, I was
15 honored with the position of emeritus professor.
16 So I'm professor emeritus in the pathology
17 department at Tulane University Medical School. I
18 just met last week with my colleagues there,
19 talking about some projects that we have ongoing.
20 And that brings us to today.

21 Q So you've more or less retired from Tulane; 13:13:4
22 correct?

23 A I have. 13:13:4

24 Q But as a result of your work with Dr. Wagner, you 13:13:4
25 started doing your own research in asbestos-related

1 diseases and how they're caused; is that correct?

2 A That's right. 13:13:5

3 Q And based on that, did you publish any papers? 13:13:5

4 A Oh, sure. I mean, you can't be successful as a 13:13:5
5 professor in medical school unless you publish your
6 work in the open medical literature so anyone who's
7 interested can see that work and critique it and
8 add to that field of science.

9 So the issue, of course, is how do you pay for 13:14:1
10 that work, because the universities provide a place
11 for you to do your work, but they don't pay for the
12 very expensive equipment, materials, supplies, the
13 students who do a lot of the work. So it's
14 incumbent upon the professor to find that support.
15 And so I've been competing with professors in these
16 great schools across the country, whether Indiana
17 or California or Boston or Florida, for the limited
18 resources available to fund this research.

19 So we do this by sending applications to the 13:14:5
20 National Institutes of Health. And out of the tens
21 of thousands of applications they receive, only 10
22 to 15 percent of those get funded. So it's a very
23 competitive environment. The work that you just
24 asked me about has been funded without interruption
25 in my laboratory throughout my career.

1 Q Doctor, is there such a thing as peer review in the 13:15:1
2 medical literature?

3 A Sure. 13:15:2

4 Q What does that mean? 13:15:2

5 A So this is an essential component of science where 13:15:2
6 your peers, scientists like yourself, anonymously
7 review your work. So all of the peer-reviewed
8 papers, I listed 154 of them in my CV here, have
9 been reviewed anonymously by other scientists like
10 myself. And that's part of what's necessary to get
11 this work done.

12 Q And have you also yourself been what's called a 13:15:4
13 peer reviewer?

14 A I do that regularly. I have several papers sitting 13:15:4
15 on my desk right now waiting for me to review.

16 Q Doctor, I've had a chance obviously to look at your 13:15:5
17 CV. Have you received any awards during your
18 career?

19 A Well, you know, I would say the most -- I have 13:16:0
20 received some awards, but the most prominent awards
21 that I received are the grants, the grant awards
22 from the National Institutes of Health, because
23 they're so hard to get and because they provide
24 such an important structural component for the
25 research that's done in this country across from

1 coast to coast. If you have the opportunity to be
2 supported by the National Institutes of Health,
3 that's a great reward. That's the most significant
4 award that I've received. I've received others,
5 but that's the most important one.

6 Q Doctor, have you also testified in courts as a 13:16:3
7 witness giving your medical opinions?

8 A Many times, sure. 13:16:3

9 Q And how long have you been doing that for? 13:16:4

10 A Well, let's see. So I started my interest in 13:16:4
11 asbestos disease in 1974. Fifteen years after
12 that, in 1989, I had one case. An attorney from
13 your firm, actually, asked me to provide testimony
14 in a case like this. And so I had a few cases in
15 the early '90s, a few more in the late '90s. And
16 in the 2000s and particularly since I retired, I've
17 had many more of these cases.

18 Q Doctor, that was -- I was going to ask you, have 13:17:1
19 you testified before at the request of my firm?

20 A Yes, I have. 13:17:2

21 Q And have you testified in courts all around the 13:17:2
22 country before?

23 A Many times, yes. 13:17:2

24 Q And have you actually testified -- you and I have 13:17:2
25 had this conversation before, haven't we?

1 A Oh, sure. 13:17:2

2 Q And you've testified in Indiana before? 13:17:2

3 A I have, yeah. 13:17:3

4 MR. GREENE: Your Honor, at this time I know 13:17:3
5 it's not required, but we would offer Dr. Brody as
6 an expert in cell biology, anatomical pathology,
7 and the physiology of asbestos-related diseases.

8 MS. MALIK: No objection, Your Honor. 13:17:4

9 MS. WEGLARZ: No objection. 13:17:4

10 THE COURT: All right. You may proceed. 13:17:4

11 MR. GREENE: Thank you, Your Honor. 13:17:4

12 BY MR. GREENE: 13:17:4

13 Q Dr. Brody, did I ask you to come here today to 13:17:5
14 explain how asbestos causes diseases?

15 A Yes, you did. 13:17:5

16 Q And did you bring a slide presentation with you for 13:17:5
17 that purpose?

18 A Yes. I have a series of slides that I -- most of 13:17:5
19 them are pictures that I've taken with different
20 kinds of microscopes. They -- I set this up
21 particularly to show the medical students how
22 asbestos causes disease. I gave a talk a couple
23 weeks ago in San Francisco and used some of these
24 slides. So that's what this slide presentation is.
25 It's to explain how asbestos causes disease.

1 Q And Doctor, will it be helpful for the jury to walk 13:18:2
2 through that slide presentation to explain how
3 asbestos causes disease?

4 A I hope so. 13:18:3

5 Q Doctor, would it be helpful if you got up and kind 13:18:3
6 of walked through this with us?

7 A If I could, yeah. 13:18:4

8 MR. GREENE: May we do that, Your Honor? 13:18:4

9 THE COURT: You may. 13:18:4

10 MR. GREENE: Doctor, what might be helpful is 13:18:4
11 if I go over here.

12 Your Honor, may I do that? 13:18:4

13 BY MR. GREENE: 13:18:4

14 Q Doctor, as you're walking through -- 13:18:4

15 A I haven't seen one of these for a while. 13:19:0

16 Q Are you going to hit me with that if I ask a wrong 13:19:0
17 question?

18 A Yes, go ahead, please. 13:19:0

19 Q Doctor, as you're walking through this, can you, as 13:19:0
20 you're giving your opinions, can we agree that
21 you're giving them to a reasonable degree of
22 medical certainty?

23 A Yes, or scientific certainty. 13:19:1

24 Q Scientific certainty. 13:19:1

25 A And medical certainty, yes. 13:19:1

1 Q Can you tell us first, what is this first slide 13:19:2
2 that we're looking at?

3 A Well, this is obviously a diagram from a textbook. 13:19:2
4 I know you know where your lungs are, but I just
5 want to remind you that when you take a breath, the
6 air comes down this tube right here that we call
7 the trachea or windpipe. You can feel the top of
8 that in your Adam's apple right here. And you take
9 a breath, and the air goes down into this series of
10 tubes called conducting airways because they
11 conduct air down into the lungs.

12 This also acts as a map that shows you where 13:19:4
13 the different asbestos diseases develop. So, for
14 example, the disease asbestosis develops in among
15 the tubes. The disease lung cancer develops in the
16 walls of the tubes. And then you see this black
17 line that runs around the outside the lung. That
18 black line represents the pleura, P-L-E-U-R-A. The
19 pleura is a very thin, Saran Wrap thin, membrane
20 that wraps around the outside of the lungs, makes
21 the lungs airtight like balloons.

22 There's a single layer of cells that runs 13:20:1
23 around the outside of the pleura. Those cells are
24 called mesothelial cells. Somebody has a cancer of
25 the mesothelial cells, it's called mesothelioma.

1 There's also a thin layer of mesothelial cells on
2 the inside lining of the chest wall. And as you're
3 sitting here and you're breathing, your lungs are
4 rubbing up and down against the inside of your
5 chest, but you don't feel that because the
6 mesothelial cells secrete a slippery substance that
7 allows the lungs to move against the inside of the
8 chest wall. And that's one of the functions of the
9 mesothelia cells.

10 So I want to explain how asbestos gets from
11 the environment, doesn't matter the source. The
12 lung doesn't discriminate among the various sources
13 of asbestos. I'm going to show you how the fibers
14 get into the lung, where they go, how they then are
15 transported to the pleura, to the mesothelial
16 cells, and then once they get there, I'll explain
17 how asbestos causes this disease, mesothelioma.

18 Q So Doctor, you're going to take us on a journey
19 essentially from the breathing zone through the
20 lungs and how to the pleura?

21 A That's it.

22 MR. GREENE: Your Honor, if I can pause just a
23 second. Is it possible to shut off half the lights
24 so we can see?

25 THE COURT: Yes, we can turn off a couple of

13:20:5

13:21:2

13:21:3

13:21:3

13:21:4

1	them here.
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2 MR. GREENE: Thank you.

3 A So while we're doing that, I can tell you that in
4 order to see these things, like -- that's great. A
5 lot better. Thank you.

6 THE COURT: Thank you.

7 A So in order -- these things that we're talking
8 about, cells and asbestos fibers, they're much
9 smaller than can be seen with the naked eye. So we
10 need different kinds of microscopes. I have a
11 picture of a microscope that I used for many years.
12 This microscope actually was a victim of Hurricane
13 Katrina when I was at Tulane in New Orleans.

14 But I can take a piece of tissue as small as a
15 period at the end of a sentence or as big as this
16 device I have in my hand and put that tissue into
17 this door right here in front of me and enter it
18 into the column. And the column is evacuated. It
19 has a vacuum in the column. And at the top of the
20 column, there is an electron gun that generates
21 trillions of electrons that come down through that
22 vacuum and strike whatever sample I put in there.

23 The electrons then run over the surface of the
24 sample very rapidly and recreate at the highest
25 ultrastructural level the details of whatever I put

1 into the microscope. And then we collect those
2 electrons and then there's an electron image in
3 front of me, and then just off of the screen
4 there's a camera so I can take a permanent image of
5 whatever it is we're looking at.

6 So, for example, if I cut a piece of tissue 13:23:1
7 out of the lung, and you can see the pleura running
8 here and you can see the conducting airways going
9 up, and I cut this out and I put it in the
10 microscope and I take a picture of it, you can see
11 that your lung looks like a sponge. It's a sponge
12 for air, obviously, rather than water. You can see
13 how thin the pleura is. When I cut across the
14 pleura, you can see how thin that is.

15 And then on the outside lining of the pleura 13:23:4
16 are the mesothelial cells. Here are a couple of
17 those conducting airways I was telling you about.
18 And you can also see the gas exchange area, where
19 we exchange oxygen and carbon dioxide.

20 So when you take a breath, the air comes into 13:23:5
21 our nose and our mouth and we have these nose hairs
22 and moisture in our throats and our nose that
23 capture a lot of particles. We're always faced
24 with particles in the air, bacteria, viruses, a few
25 asbestos fibers, and those things typically get

1 trapped. Most of them get trapped. But a lot of
2 them go right past those early -- those initial
3 defenses and get down into the lung.

4 So I want to show you then on the surface of 13:24:2
5 our airways, we have a very effective defense
6 mechanism. So I'm going to focus the microscope
7 right down here on the airway. It could be
8 anywhere along the airway. It could be in you, me,
9 a rat, cat, dog, giraffe, elephant, we all have
10 these same defenses. So I'm going to focus the
11 microscope right here and fill the screen with
12 what's at the tip of the pointer. So I'm going to
13 focus the microscope, take a picture, and now you
14 can see what the surface of our airways looks like.

15 And it says human bronchiole. A bronchiole is 13:25:0
16 a small airway, and our airways are lined by
17 millions of these little hair-like structures.
18 They're not hairs at all. They're extensions of
19 the cell surface called cilia, C-I-L-I-A. And
20 these cilia are constantly beating in a synchronous
21 wave-like fashion, so if you inhale any of these
22 particles I'm telling you about, they get swept up
23 to your mouth and you swallow them or spit them
24 out. That's, again, going on all the time.

25 Now, you can also see that there are some 13:25:3

1 cells that don't have cilia, and those cilia make
2 mucous. And you don't think much about mucous
3 unless you're a smoker or you have a cold, then you
4 can feel that mucous getting swept up to your mouth
5 and you might cough. But then typically you
6 swallow it or spit it out. And this very important
7 defense mechanism is called a muco, for mucous,
8 mucociliary, the cilia, mucociliary escalator,
9 because it escalates things up to our mouth. So
10 the mucociliary escalator is working all the time.

11 Now, that escalator lines all of our airways, 13:26:0
12 but a lot of things that we inhale go zipping right
13 past that defense mechanism and get out into the
14 air spaces. And that's a requirement for asbestos
15 to get to the target cell for mesothelioma, those
16 mesothelial cells on the outside lining of the
17 pleura.

18 So I'm going to show you what happens when the 13:26:2
19 fibers get out into the air spaces and then how
20 they get to the pleura. We actually discovered in
21 my laboratory the pathway that asbestos fibers take
22 when they get into the air spaces of the lung.

23 So I'm going to take us out to the end of the 13:26:4
24 airway, where it opens out into the gas exchange of
25 the lung.

1 Q Doctor, can we pause for one moment just on that 13:26:5
2 picture.

3 A Of course we can. 13:26:5

4 Q Just one quick question, because the jury has heard 13:26:5
5 the term a couple times. That previous slide, that
6 material where the gas exchanges, is that what's
7 called the parenchyma?

8 A Yes. So this whole area, this gas exchange area of 13:27:0
9 the lung, is the parenchyma of the lung, that's
10 correct. Okay. And also, while we're paused, let
11 me point out this marker down here, because I'm
12 talking about things that are too small to be seen
13 with the naked eye, which is why we take pictures
14 of them magnified many tens of thousands of times
15 with the microscope. And this is a bar that
16 represents ten what are called microns. So that's
17 the marker for microns. The measurement we use is
18 microns.

19 So it's easy for you here to see 10 microns. 13:27:3
20 The question, of course, is how big is a micron,
21 right. So if you take your thumb and your
22 forefinger and you make a little space, you can
23 just barely see it with your naked eye, you've made
24 about a millimeter. And now take that millimeter
25 and divide it a thousand times. What you've done

1 then is you've made a thousand microns. So the
2 human eye, the naked eye, no magnifying glass or
3 microscope, the human eye can see about a
4 millimeter, a thousand microns.

5 Now, obviously you can't see one micron. You 13:28:0
6 can't see a hundred microns. You can barely see a
7 thousand. But with the electron microscope, it's
8 easy to see 10 microns. And if you took this bar
9 in your mind's eye and stood it up next to these
10 cilia, you'd see they're about 8 to 10 microns
11 long. And so this marker will be on most of the
12 pictures that we see throughout.

13 Q Now, are we going deeper into the lung? 13:28:3

14 A We are. We're going to go -- so I'm going to cut a 13:28:3
15 piece of the lung out here at the end of the airway
16 where it opens out into some of these air spaces,
17 because I want you to think about sitting in an air
18 space if you will. Take off the ceiling and look
19 down at the carpet. I think there are some carpet
20 squares there. So let's look at the air space
21 surface.

22 So here we are now at the end of the airway 13:29:0
23 where it opens out into the gas exchange, and here
24 are a few of the hundreds of millions of air spaces
25 that we have in our lungs. And you take a breath,

1 and the room air comes rushing into the air space,
2 like we're sitting in right now. And we're sitting
3 on a carpet, and this carpet represents the kind of
4 cells that we have that allow the oxygen in the
5 room air to move -- to diffuse through it into the
6 blood that's running underneath it. I don't know
7 if you can see when I cut this lung open, I cut
8 open some holes in the walls. You might be able to
9 see some holes in the walls that I left here. And
10 those holes in the walls are where the blood is
11 running.

12 So we have to get the oxygen and the room air 13:29:4
13 to our brain and our muscles, and we do that in the
14 air spaces. So you take a breath, it's 20 percent
15 oxygen in the room air, diffuses through the
16 carpet. The blood picks it up, carries it to the
17 brain. You use up that oxygen. Those red blood
18 cells pick up the carbon dioxide that you make,
19 come back to the lung, and you go whew, like that.
20 Because the carbon dioxide is being released into
21 the air spaces, so now you have the exit. And
22 that's what's just going on in our lungs all the
23 time. That's how we get the oxygen that we use.

24 Now, it turns out that this carpet that allows 13:30:1
25 the movement of the fibers, asbestos fibers, is the

1 pathway to get the fibers through to the pleura, so
2 we're going to -- that's where we're going to go.

3 Q So we're going to go deeper and you're going to 13:30:3
4 tell us where we go from here.

5 A Right. I'm going to take us into a single human 13:30:3
6 air space. So let's go there. And this is a
7 single human air space. So I took the ceiling off,
8 remember. I perched the microscope right over
9 the -- we're looking down on the carpet, and I'm
10 outlining one of the carpet cells. And I called
11 them carpet squares, but nature doesn't make
12 squares very well. You just look around, you'll
13 see smooth surfaces. And that's the nature of
14 these naturally occurring surfaces. So this is a
15 carpet oval, and there's another oddly shaped cell
16 over here.

17 And so we have these big flat cells. I'll 13:31:1
18 give you the big name for them. They're called
19 epithelial cells. So epithelial cells cover
20 surfaces. Your skin is an epithelium, we call it
21 epidermis. The epithelial cells that cover our
22 airspace surfaces have very special names. We call
23 them Type 1 epithelial cells, and then there are
24 these round, kind of smaller round ones that we
25 call unfortunately Type 2 epithelial cells.

1 So the Type 1 epithelial cells allow the
2 movement of oxygen and carbon dioxide. If the Type
3 1 cells get injured by infection or asbestos, the
4 Type 2 cells very quickly start to divide and take
5 their place. So we all have a repair mechanism in
6 every one of our air spaces should -- because we
7 have to have an intact carpet to move oxygen and
8 carbon dioxide.

9 Okay. We have one more line of defense. I'm
10 going to take us down there right on the carpet.
11 You'll be able to -- I've magnified it so that if
12 you're interested you can actually count the number
13 of bumps on these little cells. And it's important
14 to know things like that because these cells are
15 very -- are essential to life. They produce a
16 substance that keeps the air spaces from
17 collapsing. So, I mean, these are very important
18 cells.

19 Let's go down now onto the carpet here, and so
20 there's the cell with the bumps all over it. Like
21 I said, you can even count the bumps because I
22 magnified this many thousands of times. And there
23 are two other actors that you haven't seen before.
24 There's this cell kind of sitting there ruffled,
25 not going anywhere. And then there's this cell

1 that has a tail end and a couple of what are called
2 false feet out in front of it. And I caught this
3 cell in the act as it was heading in this direction
4 towards me, actually, and it was going, when I
5 caught it, it was going after this pollen grain
6 right here.

7 So this lung once belonged to somebody who was
8 killed in a motorcycle accident. I was on the
9 medical examiner's autopsy call, and I went in and
10 prepared this person's lung within a few hours
11 after death. And we have these chemicals that fix
12 the lung in a very lifelike condition. And as this
13 person was riding along on his motorcycle, I'm sure
14 he was inhaling a lot of different things. One
15 thing we know he inhaled was this pollen grain
16 right here, and it went zipping right past his
17 mouth and nose and the cilia and landed on the
18 carpet.

19 We don't want any kind of foreign particles
20 sitting on these epithelial cells that allow our
21 oxygen and carbon dioxide, so we have these cells
22 called -- they're called macrophages. Macro means
23 big and phage means eater. These cells patrol our
24 airspace surfaces, and they can detect the presence
25 of foreign particles. They're covered with

13:33:1

13:33:4

1 chemical receptors that allow them to recognize
2 things that don't belong there. In my laboratory,
3 we discovered the chemical signal that attracts
4 these macrophages to asbestos. Part of the
5 asbestos story. How do the macrophages find the
6 asbestos so they can get the fibers out of the
7 lung. That's the story there. It only took five
8 years to figure it out, but that's what we --

9 Okay. So now you've seen all the cells you 13:34:4
10 need to see to understand what happens when
11 asbestos gets into the air, so we can talk about
12 asbestos.

13 Q That was where I was going to go next, Doctor. Can 13:34:5
14 you tell the jury first, what is asbestos?

15 A Sure. So this is one of the asbestos varieties, 13:34:5
16 chrysotile asbestos. It's one of the six different
17 asbestos varieties. Asbestos is a naturally
18 occurring mineral that's been mined in various
19 places around the world. All of the asbestos
20 varieties cause all of the asbestos diseases.

21 Chrysotile is the most used asbestos 13:35:1
22 commercially, about 95 percent of the world's use.
23 Chrysotile comes from a mineral group called
24 serpentine mineral. And you can actually see why
25 it's called serpentine just by noticing that some

1 of these fibers are kind of curly. And when you
2 look at the ore as it comes out of the ground, the
3 rock, the asbestos has a serpent-like quality in
4 the rock, and so it was named serpentine. So
5 that's the mineral. That's one kind of asbestos.

6 Now, the other five asbestos varieties are in 13:35:5
7 a mineral group called amphibole,
8 A-M-P-H-I-B-O-L-E. Now, the amphibole varieties,
9 there are five of them. The most commercially
10 useful were crocidolite and amosite, but there's
11 also anthophyllite, tremolite, and actinolite. So
12 those are the five of the amphibole bracket.

13 What makes them asbestos is that they have an 13:36:2
14 elemental signature. They have a certain
15 combination of elements like magnesium and silicon
16 and iron and sodium in a specific pattern that a
17 mineralogist or a scientist like myself can look at
18 the array of elements and look at the structure and
19 tell you what kind of asbestos it is.

20 All of the asbestos varieties are fibers by 13:36:5
21 definition. A fiber is a structure three times
22 longer than it is wide. That makes it a fiber. If
23 it's a fiber with the elemental construction, the
24 elemental content of asbestos, as has been defined
25 by mineralogists for decades, we call it asbestos.

1 All of the asbestos varieties, as well as a number
2 of other fibers that are persistent in the lung,
3 cause the diseases, all of the diseases that we
4 know of as asbestos diseases.

5 Q Now, we've talked about asbestos. Is there 13:37:2
6 something called asbestiform?

7 A Sure. 13:37:2

8 Q What is that? 13:37:3

9 A Well, asbestiform means it's a fiber with the 13:37:3
10 elemental content of asbestos. I mean, that's what
11 asbestiform means.

12 Q And all the types of asbestos fibers cause all the 13:37:4
13 types of disease; correct?

14 A Yes, that's correct. 13:37:4

15 Q Does that mean that the asbestiform fibers can 13:37:4
16 cause all those diseases?

17 A Yeah, absolutely, that's correct. 13:37:4

18 Q So where do we go next, Doctor? 13:37:5

19 A Okay. So this is an example of chrysotile. As I 13:37:5
20 told you, we'll see an amphibole fiber in a picture
21 coming up later on. But one of the things that I
22 learned from Dr. Wagner was how to set up the
23 animal experiments where we could ask what sound
24 like simple questions, but took a long time to sort
25 out.

1 So, for example, if I wanted -- we knew the
2 fibers went in going to the lung and caused
3 disease, but I just showed you that the lung is a
4 very complex organ. So where in the asbestos --
5 where in the lung did those fibers go? Well, we
6 couldn't go to the library and get that answer.
7 Then the question was, well, once they get into the
8 lung, how do they interact and cause injury to all
9 those different cells that I was just showing you?
10 You couldn't go to the library and find that out.
11 So I started a series of experiments that helps to
12 explain that.

13 Q Is there a particular animal that you used in the
14 animal model?

15 A Yeah, we used rats and mice typically.

16 Q Why is that?

17 A Well, they're easy to procure. Their genetics are
18 well established. So the animals can be more or
19 less susceptible to developing disease. It depends
20 on the questions you want to ask.

21 But understand that you can't learn everything
22 you want to know by using animal studies. But if
23 you ask the right questions, there's a lot to be
24 learned. You have to understand what you can learn
25 and what you cannot. We know that the animals,

1 that rats and mice get the same asbestos diseases
2 as people from the same cells, but the time frames
3 are different. The animals live two to three
4 years. You know, in people the diseases don't show
5 up for decades after exposure. We'll talk some
6 more about that, I'm sure.

7 So, for example, I'm not going to be able to
8 tell you how much asbestos it takes to cause
9 disease in a person by using animals. You can't do
10 that. They don't live long enough. You can't give
11 them the same kind of exposures that people get
12 necessarily. So you have to know what the limits
13 are to the animals when you're using them.

14 Now, take any human disease, we have animal
15 models of the disease, whether it's all the
16 asbestos diseases or tuberculosis or a whole series
17 of viral disease, diabetes. We have animal models
18 that help us understand human disease. This is a
19 classic method that scientists use.

20 Q Are we going to talk now about the work you've done
21 in that regard?

22 A Well, I have a few slides to show you how asbestos
23 moves through the lung, and then we'll talk about
24 cancer.

25 Q Excellent.

1 A So we may -- aerosols, we made a dust. We have 13:40:3
2 these chambers about six feet high and four feet
3 wide, and you put the rats or mice in the chambers
4 and you make it very dusty in the chamber. And if
5 I expose the animals for an hour and then at the
6 end of that hour I take them out of the chamber and
7 I give them an overdose of anesthetic, overdose
8 means they don't wake up from that, and any
9 asbestos that I find in the -- I see in the lung
10 must have landed there during that first hour, and
11 then I can tell you where the fibers land. And
12 then if I look at a group animals an hour later or
13 two hours later or a week later, months, years,
14 depends on, again, what you want to know, you can
15 sort out a lot about the diseases that are going on
16 in people.

17 Now, I did not attempt to produce a 13:41:1
18 mesothelioma in these animals because that had
19 already been done. Dr. Wagner had already done
20 that. Other scientists like Dr. McConnell had
21 already done that. And so -- and that takes years
22 of exposure, and just like in people, only a small
23 percentage of the animals get the disease, get the
24 mesothelioma at the end of their life span. It's
25 very much like the humans in that regard. But I

1 didn't need to do that all over again. I wanted to
2 focus on the early events, what are the kinds of
3 changes that we know will lead to mesothelioma and
4 other asbestos diseases.

5 Q Will you walk us through what you learned in doing 13:41:5
6 that?

7 A Here we go. 13:42:0

8 Q Great. 13:42:0

9 A All right. So this is the lung. This is from the 13:42:0
10 lung of a rat. It looks familiar to you, I'm sure.
11 The end of the airway where it opens out into the
12 gas exchange and you can see some of the small
13 airspaces as we've described earlier. And I'm
14 going to focus on this spot right here. You see
15 this black hole actually is this black hole. I
16 want to back up for a second because that means
17 we're looking at this surface immediately after a
18 single hour of exposure. And this is one of
19 millions of spots like this around the lung. I'm
20 just giving you an example of one of these. And in
21 our papers that we wrote, we showed -- you know, we
22 had to count thousands of spots like this to prove
23 what we're -- what we're saying.

24 So I'm going to focus on this spot right here. 13:42:5
25 And so you can see this fiber here is -- this is a

1 10-micron bar. Remember, we saw the 10-micron bar
2 earlier. So this is a 10-micron bar. That makes
3 this fiber about 10 microns long. We have some
4 long, curly fibers here. We have some short,
5 straight fibers. The key to this picture is that
6 you can see a lot of the asbestos, but some of the
7 asbestos you can't see. You see how this is -- you
8 can see the fibers here, but you can't see them
9 here. And you can see the fibers here, but you
10 can't see them here.

11 It turns out that these carpet cells, these 13:43:2
12 epithelial cells, react very quickly to the
13 presence of this toxic asbestos and come up over
14 the top of the fibers and shove them under the
15 carpet. Now, it took us a while to figure that
16 out, but that's what's going on here. And the
17 fibers are getting shoved under the carpet. The
18 problem is that under the carpet, there is a space,
19 a storage space, but that's also where the fluid
20 flow of the lung is carried through. So the fluid
21 flow of the lung, as I'm going to show you in a
22 second, goes to the pleura. So if asbestos fibers
23 get into that space, they then have access to the
24 pleura.

25 So that's where we're going to go in the next 13:44:1

1 slide. I'm going to show you another example,
2 again, from one of our experiments, one out of
3 thousands of places like this around the lung.
4 There's an airspace here. There's another airspace
5 here. And you can see there's actually a -- some
6 asbestos here, but it's covered over here. I don't
7 know if you can see this. Yeah, there's actually a
8 fiber right here that's completely covered. All
9 you can see is its electron shadow underneath the
10 epithelial carpet. And maybe -- and actually
11 here's a fiber bundle that's landed on the lung.

12 And you see these characters here that look
13 like doughnuts. Well, this is what our red blood
14 cells look like. Our red blood cells look like
15 doughnuts because they have a depression, not a
16 hole, but they have a depression in the center, and
17 you can see how they're lined up in the
18 capillaries, in the small capillary blood spaces.
19 And this is the capillary flow of blood. Now, I
20 said this is what our red blood cells look like.
21 This is the lung of a rat. This is exactly the
22 same size and shape of our red blood cells. And
23 they're passing through the capillaries here, the
24 small blood spaces, and you see that some of the
25 asbestos is covered by the carpet. And so we're

13:44:4

1 going to talk now about the fluid flow of the lung.

2 Q One quick question before you do that, Doctor. You 13:45:3
3 said that was a fiber bundle. What's a fiber
4 bundle?

5 A It just means that there are a bunch of fibers 13:45:3
6 stuck together, and that's actually -- what I
7 showed you earlier, when I showed you the asbestos,
8 I showed you a fiber bundle with a bunch of fibers
9 stuck together. And these fibers that are in
10 bundle tend to come apart, and it's the individual
11 fibers that get inhaled, and a few fibers at a time
12 in small bundles can also be inhaled obviously, as
13 you see here, this is a fiber bundle.

14 So what we're going to do then is we're going 13:46:0
15 to talk about what's called the fluid flow of the
16 lung. Now, this is called a Netter diagram,
17 N-E-T-T-E-R. Dr. Netter has given us atlases of
18 the human body in health and disease. So we use
19 Dr. Netter's diagrams to help understand the
20 anatomy of the lung. Here Dr. Netter is showing us
21 the pattern of lymph flow in the lung. And you can
22 see Dr. Netter's given us these small vessels, many
23 of which end at the pleura. And these are lymph
24 vessels.

25 So you've probably all heard of lymph and 13:46:3

1 lymph nodes. Lymph is clear fluid that runs in our
2 bodies from head to toe, and it flows wherever
3 blood flows. If I were to take a blood vessel from
4 your body and cut across and you looked at the cut
5 end, you'd see a cuff around the outside of the
6 blood vessel where the lymph is flowing along with
7 the blood. Lymph has two major functions. One is
8 to carry cells of the immune system around the body
9 and to help us control pressure in our blood
10 vessels.

11 Now, we also have what are called lymph nodes. 13:47:0
12 Lymph nodes are small bundles of tissue that filter
13 the lymph wherever it goes. We have lymph nodes,
14 again, from head to toe, in our neck, in our
15 armpits, throughout our body. And here Dr. Netter
16 is showing us some lymph nodes around the lung. So
17 these are called thoracic because they're in the
18 thorax, in the chest. And some investigators --
19 this is not my work, but some investigators looked
20 at the content of lymph nodes around the lung and
21 found that in people exposed to asbestos, there is
22 an increase in the number of fibers in these lymph
23 nodes.

24 Now, the way lymph nodes in the lung, around 13:47:5
25 the lung get asbestos fibers is by inhaling the

1 asbestos, the asbestos lands on the carpet, get
2 transported through the carpet, as I showed you,
3 and get picked up by the lymph flow in the lung.
4 It I were to pull back the carpet, you'd see that
5 it's moist underneath the carpet. That moisture is
6 lymph. So it's not -- the lymph in our lungs is
7 not in vessels at the airspace floor, but that
8 fluid collects in these small vessels. So there's
9 a flow through the lung, and if there's asbestos in
10 that compartment, some proportion of those fibers
11 get picked up, carried in the lymph vessels to the
12 pleura.

13 Q And the pleura, is that where mesothelioma occurs? 13:48:4

14 A Yeah, see on the outside lining of the lung, you 13:48:4
15 can see a couple different things. You'd see a
16 layer of mesothelial cells. And also you can see
17 the pattern of lymph vessels as they are
18 distributed around the surface of the pleura.

19 Q So can you tell us, Doctor, once fibers are carried 13:49:0
20 through the lymph system out to the mesothelial
21 lining, how they cause disease?

22 A That's where we're going. All of the asbestos 13:49:1
23 fibers can get into this flow. All the asbestos
24 fiber types have been found in the pleura and in
25 the lymph nodes.

1 Okay. So I'm going to cut a piece of the lung
2 out, and you'll see the pleura on the right. And
3 the artist is enhancing this issue of the lymph
4 flow, so let's look at that. So here's the normal
5 pleura over here. And then you can see the artist
6 has some fibers floating into the lung, like you
7 saw actually happens. And the fibers land down in
8 the airspaces. And here the artist says, lymphatic
9 fiber transport to the pleura.

10 So here you can see this fiber going in here
11 and getting -- the artist didn't know that I had
12 taken this picture earlier. It shows that very
13 thing. You see that little fiber poking its way --
14 let me see this. This little fiber right here,
15 poking its way into the flow, just like -- just
16 like the artist is showing here, okay. And so if
17 it flows into the flow, it reaches the normal
18 mesothelial cells and once it reaches this target
19 cell, can cause that cell to become a cancer cell,
20 which is exactly what we're going to talk about.

21 Q So can you walk us through, once it gets there, how
22 it causes those cells to be cancerous?

23 A Okay.

24 Q What happens first?

25 A Exactly. Okay. So here's what a normal pleura

1 should look like, thin and shiny, because it has a
2 moist surface on the outside. Remember, I showed
3 you about -- told you about the secretions, and
4 there's also lymph out in the -- in that space,
5 just outside the pleura. So it's moist, shiny, and
6 compare that to a mesothelioma, where the pleura is
7 dramatically thickened, not only around the lung,
8 but against the chest wall as well. And it can
9 spread into the lung and underneath the lung, and
10 that's a mesothelioma.

11 And then, of course, the question is, how does
12 asbestos cause those mesothelial cells to become
13 cancer cells. So I have a few slides to go there.

14 Q I'd like to walk through that so the jury
15 understands how the asbestos actually causes the
16 disease.

17 A Okay. So this slide is the cover of a proceedings
18 of a conference I was at a few years ago. And
19 the -- and I gave a talk at this conference, and
20 the focus was how fibers cause cancer. You see
21 carcinocancer genesis, formation, how do fibers
22 cause cancer to form. That was the focus of the
23 meeting.

24 I've been talking to you today about cells,
25 and I showed you some cells. I showed you some

1 lung cells and a variety of different kinds of
2 cells. And you saw how those cells interact with
3 asbestos. But you cannot talk about cancer unless
4 you talk about the molecular aspects.

5 Molecular biology is the study of genes and 13:52:1
6 genetics. Cancer is a genetic disease. Cancer
7 develops when there are mistakes, errors,
8 mutations, pretty much the same thing, in a set of
9 genes that controls cell growth. So I'm going to
10 give you the simplest definition of cancer, and
11 I'll come back to what I just said, okay.

12 Cancer is the loss of control of cell growth. 13:52:3
13 I'll say that again, and then I'll explain. Cancer
14 is the loss of control of cell growth. If I took a
15 piece of your skin and I put it under a microscope,
16 I can show you that about 10 percent of your skin
17 cells are dividing. You're always losing skin.
18 You always have to replace it. And we do that at a
19 rate of about 10 percent.

20 Your lung and your liver, you shouldn't have 13:53:0
21 to be replacing a lot of lung and liver cells. We
22 do that at a rate of about 1 percent. The
23 mesothelial surfaces, a half of 1 percent. Very
24 low background rate of replacement for mesothelial
25 cells. These rates of growth are tightly

1 controlled by specific genes.

2 Now, genes are short segments of DNA. Our DNA 13:53:2
3 is our genetic material. We'll talk more about
4 that. Humans have about 20,000 or so genes that
5 make us who we are. You can see what a few of
6 those genes do. Look around, you see different eye
7 color, skin color, different sized people,
8 different metabolic rates. That's what a few of
9 our 20,000 or so genes do.

10 About a hundred of those 20,000 genes are 13:53:5
11 called growth control genes. Now, what did I tell
12 you was the definition of cancer? The loss of
13 control of cell growth. That means that you have
14 to have a series of errors in genes that control
15 cell growth. That's what carcinogens do.
16 Carcinogens, cancer causing agents, cause loss of
17 control -- I'm sorry, cancer causing agents cause
18 damage to genes that control cell growth leading to
19 cancer.

20 Asbestos is a carcinogen. All the asbestos 13:54:3
21 varieties are carcinogens, cancer causing agents.
22 And they're complete carcinogens. That's all you
23 need. You don't need anything else along with the
24 asbestos to cause the genetic errors that lead to
25 cancer.

1 So there are a number of ways to study these
2 things, the molecular biology and the genetics of
3 these diseases. One of the ways to do it is by
4 taking cells out of the body, out of animals, out
5 of people, and put the cells in a dish, put
6 millions of cells in very special dishes and give
7 them the right nutrients, and those cells will
8 continue to grow. And you can add the agents
9 you're interested in studying, it could be asbestos
10 or other kinds of fibers or other agents, and
11 actually watch how that happens and study the
12 chemistry and the molecular biology.

13 And on the cover of this proceedings is an
14 example of that, what I'm just telling you about.
15 And there are two cells here. I'm outlining one of
16 the cells over here and I'm outlining the other one
17 over here on. And you can see that some fibers
18 have been added to these cells. There's kind of a
19 long fiber over here and some bunch of short
20 fibers. And those fibers are collected around the
21 center circle in the cell. And the center circle
22 in the cell is called the nucleus. And the nucleus
23 of our cells contains all of our DNA. All of our
24 20,000 or so genes are crammed up inside this
25 center circle, and this center circle is about

1 10 microns across, okay. So there's no way -- you
2 need a microscope to see the nucleus, of course.

3 Now, you can see how most of the -- or 13:56:1
4 actually, in this situation, all of the fibers are
5 excluded from the DNA in the nucleus. That's
6 because we have a very effective membrane that
7 surrounds the nucleus and protects the DNA. Well,
8 one of the things that scientists have known for a
9 long time is that when cells divide, when cells are
10 dividing, they lose that protective membrane around
11 the DNA. So that means that a cell that's dividing
12 is more likely to become a cancer cell.

13 So in my laboratory with other collaborating 13:56:4
14 laboratories, we carried out some experiments
15 asking what would happen if we added asbestos and
16 other agents to cells that were dividing. So we
17 can see.

18 Q Can I go back to one thing you said? 13:57:0

19 A Of course. 13:57:0

20 Q You said asbestos is a complete carcinogen. 13:57:0

21 A Right. 13:57:0

22 Q Does that mean that asbestos by itself can cause 13:57:0
23 uncontrolled growth in mesothelial cells?

24 A Yeah. So if you have asbestos as a carcinogen and 13:57:1
25 do exactly that, if you have enough -- but you have

1 to have enough errors. In other words, a single
2 error in a gene is not enough. And let me -- so
3 you reminded me of something. So these genes that
4 I told you were growth control genes, some of them
5 that I'm going to talk about are called tumor
6 suppressor genes. A little something about that.
7 Some of them are called DNA repair genes.

8 You see, I told you about our -- some of our 13:57:3
9 defense mechanisms that protect our airways, nose
10 and cilia and things like that. Those are
11 structural defenses. We have a whole series of
12 molecular defenses, and those are actually even
13 more important when it gets down to taking care of
14 cells that are affected by these carcinogens. So
15 the molecular defenses are the reason that most of
16 us, no matter how much asbestos we're exposed to,
17 don't get mesothelioma.

18 What happens to these genes creates a 13:58:1
19 situation called susceptibility, how susceptible is
20 one to getting mesothelioma. Well, most of us, not
21 very. In fact, most of us, not at all. So we'll
22 go into the genetic basis for susceptibility as we
23 go along here. But basically, it's all related to
24 this set of growth control genes that we all have.

25 So this is what is supposed to happen when 13:58:4

1 cells divide. So in order to understand what
2 happens -- what's not supposed to happen, you have
3 to understand what happens.

4 So here's what happens when cells divide. 13:58:5
5 There are three cells, one, two, and three. The
6 two cells on the outside are not dividing. The DNA
7 is staying blue, so you can see it, and all
8 contained in the nucleus with a nuclear membrane.
9 But the cell in the center has received a signal to
10 divide. Now, that could mean that I treated it
11 with a growth hormone or that could mean there's a
12 skin cell and you got your skin scraped away that
13 you got the signal to divide because you need to
14 replace that injured skin.

15 Whatever the reason, what we do is we condense 13:59:2
16 the DNA in the nucleus into these white threads
17 called chromosomes. Chromosomes are bands of
18 condensed DNA. And all of our 20,000 or so genes
19 are lined up on these chromosomes. And let me show
20 you those chromosomes.

21 So humans have 23 pairs of chromosomes. 13:59:4
22 You've got one from your mother and one from your
23 father. And you see those light and dark bands.
24 That's where the 20,000 or so genes are
25 distributed. And one of the National Institutes of

1 Health is called the National Human Genome
2 Institute. And the Human Genome Institute is in
3 the process of sorting out where on the chromosomes
4 are every one of our 20,000 or so genes because if
5 a gene is not where it's supposed to be, on the
6 correct chromosome and in the exact spot where it's
7 supposed to be on that chromosome, it will not
8 function. So we have to know where those genes
9 are, on which chromosome, and exactly where on the
10 chromosome. So then you can know if it's where
11 it's supposed to be, and if it's not working, you
12 can measure that.

13 So I'm going to tell you about one of those 14:00:3
14 hundred growth control genes. I'm going to tell
15 you about one. And I'm telling you about one of
16 them because we've studied them in my laboratory,
17 we've published papers about this gene, and it's
18 called p53. Now, it turns out that p53 was the
19 molecule of the year in 1993. It had its own cover
20 on Science magazine. And it also has a couple of
21 nicknames. One is it's a tumor suppressor gene.
22 And another one is it's called the guardian of the
23 genome. This is a very important gene that
24 protects most of us from getting cancer.

25 Now, the way it does that is if, for example, 14:01:1

1 one of the other -- a piece of a chromosome or
2 other genes get damaged by a carcinogen, p53 gets
3 activated and stops the cell from dividing. It
4 stops that process so the mistakes can't get passed
5 on to the new cells. Not only that, but p53
6 organizes what's called a death pathway. Most
7 cells with genetic damage die. You never hear from
8 them again. And that is a very important molecular
9 defense that we all have, and p53 is essential,
10 along with other genes. We have a number of
11 backups. Most of us are not going to get cancer.
12 Even cigarette smokers, which cigarette smoking has
13 nothing to do with mesothelioma, but it has a lot
14 to do with lung cancers from smokers, even most
15 smokers don't get lung cancer because of our
16 molecular defenses.

17 So let's finish this process of cell division.
18 Here the chromosomes have been stained purple so
19 you can see them. Now if they go through what's
20 called faithful replication with every gene in the
21 right place on the right chromosome, then you get
22 two normal what are called daughter cells. Now,
23 the daughter cells can form even if everything's
24 not where it's supposed to be, but that's when the
25 problems occur if all the genes aren't in the right

14:02:2

1 place.

2 So let's go ahead and look at some of the 14:02:5
3 experiments we did to understand what's happening
4 as the cells are dividing. I have two more slides.

5 Q No. Tell me what this one is, Doctor. 14:03:0

6 A So in Panel A -- now, this is one of millions of 14:03:0
7 cells in the experiment. I'm showing you one. And
8 in this one, there's no asbestos. Half of the
9 chromosomes go to one side, half to the other, and
10 we'll have two normal daughter cells.

11 Over here, these cells have been treated with 14:03:2
12 an amphibole asbestos. And you can see there's
13 kind of a long fiber here. Actually, the cell's
14 about 40 microns across. That makes this fiber
15 30 microns and this fiber 20 microns and these
16 fibers 10 microns and 5 microns. So some -- there
17 are long fibers and short fibers. Most of the DNA
18 has gone where it's supposed to go, but some of the
19 DNA is bound to the surface of the fibers resulting
20 in this condition called aneuploidy.

21 Now, aneuploidy just simply means abnormal 14:03:5
22 chromosome separation. And I want to show you one
23 more example of that. And these are now
24 mesothelial cells treated with chrysotile producing
25 the same thing where some of the DNA is bound to

1 the surface of the chrysotile fiber, again,
2 producing this condition, aneuploidy. Now, these
3 are not cancer cells, but the door has been opened.
4 And if you've been listening to anything I'm saying
5 today, you'll know that any DNA, any genes that are
6 in this DNA that bound to the asbestos, any genes
7 in that DNA are not where they're supposed to be.
8 That means that those genes will not function.
9 Now, I can't tell you which genes are in there.
10 I'd have to collect that DNA and do the sequences
11 to know, but we know whatever genes are there are
12 not going to function.

13 So if in this DNA are genes that protect us, 14:04:5
14 like p53, we have a whole series of what are called
15 DNA repair genes, because they make enzymes that
16 can actually knit back together damaged DNA. So if
17 somebody's DNA repair genes are working better or
18 less likely to be damaged, they'll be less
19 susceptible than the next person. If somebody's
20 p53 genes are more robust and more likely to
21 function, they'll be less susceptible.

22 Susceptibility is all based on what happens to your
23 genes, how well protected they are and what happens
24 to those individual genes.

25 Q And so when cells divide, the asbestos causes that 14:05:3

1 genetic damage?

2 A That's correct, yeah. Now, you just reminded me of 14:05:3
3 something else, if I can say.

4 Not only does asbestos bind DNA, as I can show 14:05:4
5 you, asbestos, all the asbestos varieties generate
6 what's called -- what are called oxygen radicals.
7 Reactive oxygen species is another name for them.
8 We make them all the time actually in our body as
9 we metabolize food, as we fight infection. We make
10 reactive oxygen species. But we've known for a
11 long time that reactive oxygen species cause
12 genetic damage. Typically they're not doing that
13 when they're doing what they're supposed to do in
14 their normal amounts because flowing in our blood
15 are antioxidants, and that keeps a balance. So the
16 reactive oxygen species are not causing genetic
17 damage because they're -- they are in the right
18 balance.

19 Now, you go out in the sun and you have UV 14:06:3
20 radiation on your skin, that sets up oxygen
21 radicals and causes genetic damage in your skin.
22 And typically those skin cells with reactive oxygen
23 damage die, and they die and don't cause cancer
24 because the genes that protect us kick in and kill
25 those cells.

1 You walk by somebody else's cigarette smoke, 14:06:5
2 you get some genetic damage in your airway, and
3 those cells can become aneuploid, but they die.
4 And so they never become a cancer because of our
5 genetic defenses. That's going on in all of us all
6 the time.

7 Q Now, Doctor, this doesn't happen just because one 14:07:1
8 cell divides once, does it?

9 A Absolutely not. And this is the last slide and 14:07:1
10 goes into exactly what you're asking me. Okay.

11 Q And what is this slide? 14:07:2

12 A So I want -- with this slide, I want to kind of 14:07:2
13 reiterate a bit about this very complex topic of
14 cancer formation, and I also want to have you
15 understand what's going on during this process
16 called latency. Latency, time from first exposure
17 till the time the person comes to the clinic,
18 typically decades, many decades. And I want you to
19 understand what's going on in that time period, and
20 then I'll be done.

21 Okay. So the artist has given us here a layer 14:07:4
22 of perfectly good mesothelial cells. Single cell
23 layer, cells tightly opposed to one another, a
24 single nucleus with all the DNA that it contains.
25 And then the artist gives us a couple lightning

1 bolts and says DNA damage. As far as I know,
2 lightning doesn't cause DNA damage. What he's
3 talking about is something coming from the
4 environment, and we're talking about the -- about a
5 mesothelioma, very rare cancer, caused by asbestos.
6 So the artist in this case -- think about asbestos
7 coming in and causing DNA damage by the mechanisms
8 that I showed you. You need DNA binding and/or
9 oxygen radical generation.

10 And the cell's dividing. We know it's 14:08:3
11 dividing because we can see the chromosomes.
12 That's the only time you really can see the
13 chromosomes. And the artist has one of the
14 daughter cells going up into the upper left-hand
15 corner and dying because the artist knows very well
16 that cells with DNA damage typically die and you
17 never hear from them again. You can see the DNA is
18 clumped up. The surface of the cell is bubbled up,
19 and there's actually a macrophage coming in here to
20 clean up the mess. That's what macrophages do.

21 But we're talking about a cancer. And the 14:09:0
22 artist is giving us a tumor over here. I'll tell
23 about that funny green color in just a minute. But
24 the artist says, tumor genesis or tumor formation,
25 and that means that one of the daughter cells must

1 have survived. One of the daughter cells with
2 genetic damage must have survived, and that's this
3 one right here, has survived. And -- but the
4 artist hasn't given me much space to talk about the
5 latency. So between this first daughter cell and
6 the generation of this first malignant cell in the
7 tumor, you've got to give me about 50 years.

8 Latencies can be anywhere from -- I've seen a 14:09:4
9 brief latency of 10 years, very few latencies of 20
10 years. I've seen a couple at 80. 70 is long.
11 Somewhere between 30 and 60 years are most
12 mesothelioma -- most latencies of mesothelioma.
13 Somewhere between 30 and 60 years. You wouldn't
14 exclude an asbestos if it were -- asbestos cause if
15 it were more than 60 or less than 20, but most of
16 them fall in that range.

17 Okay. So what's happening in those 60 years, 14:10:2
18 let's say? So think about this layer of
19 mesothelial cells now sitting on the outside lining
20 of the wall. And you have now a mesothelial cell
21 with genetic damage. This cell has an error, has
22 DNA damage. It could be an error in one of the
23 genes that I told you about, a DNA repair gene or a
24 p53 gene, something like that. And there are a
25 whole series of genes. I mean, some scientists

1 have taken tumors from people with mesotheliomas
2 and they've made a complete array of what errors,
3 what genes have been damaged in those tumors.

4 So we have lists of dozens of different genes. 14:11:0
5 There are some that show up every time, so we have
6 lists of genes that we expect to be damaged. What
7 we don't have, which some very influential
8 scientists are working on right now, is just which
9 genes must be damaged for a mesothelioma to
10 develop.

11 But understanding that scientists are getting 14:11:2
12 closer to that and that we have an array of genetic
13 damage, think about that single cell sitting on the
14 mesothelial surface with an error in a gene that
15 controls cell growth like the ones I was telling
16 you about. And that cell sits there looking and
17 acting like a normal mesothelial cell for months.
18 No one would ever know it was there. One error is
19 not enough, two is not enough, three is not enough,
20 four is not enough, five is probably not enough.
21 As you start getting more than five or six errors,
22 it increases the likelihood that the cell is going
23 to lose control of growth and develop into a tumor.

24 But let's go back to now that cell with one 14:12:0
25 error. And it's sitting there for months, but

1 eventually it has to divide, two cells, four,
2 eight, 16, 32, 64, all with that error. Making
3 what's called a field, a separate field of cells,
4 just like the original, a microscopic field now
5 sitting on the surface of the wall. And one or
6 more of those cells has to get hit again. Another
7 fiber causes a second error in one or more of those
8 cells in the field. And that cell now with one --
9 with more than one error sits there looking and
10 acting like a normal cell for months in its own
11 field, right. And then eventually it has to
12 divide, two, four -- two cells, four cells, eight,
13 16, 32, making a separate field, all with cells
14 with the same two errors or four errors or six
15 errors, whatever it happens to be for that time.

16 Now, think about that process for decades. 14:13:1
17 And during those decades, our molecular defenses
18 are constantly killing those potential cancer cells
19 and we're constantly repairing DNA. In a person
20 with a cancer, a mesothelioma, what you know is
21 that in a single cell with sufficient errors and in
22 the right combination of errors for that person has
23 grown out into a tumor, and that's why the artist
24 made these all the same green color, because the
25 artist knows very well that this tumor is a clone

1 from a single cell with sufficient errors in the
2 right combination for that person that grew out
3 decades after that person first started being
4 exposed to asbestos.

5 And then eventually that tumor grows and 14:14:0
6 brings that person to the clinic, and then you know
7 the rest of that story.

8 Q Doctor, I had all these other questions for you 14:14:1
9 that I've now crossed off, but I have a few
10 follow-ups, if I may.

11 A Yeah, of course. 14:14:1

12 Q I'm just going to change position here. 14:14:2

13 Doctor, you've now walked us through 14:14:2
14 essentially from the moment that someone inhales
15 asbestos fibers through the lung to the pleura and
16 then through the cause of the damage that develops
17 in the mesothelioma; is that correct?

18 A That's right, yes. 14:14:5

19 Q I just want to come back out and talk about a 14:14:5
20 couple of concepts at a 30,000-foot level that I
21 believe you understand because of your work in this
22 regard.

23 First, is there something in the scientific 14:15:0
24 literature known as a signal or sentinel tumor?

25 A Sure. 14:15:1

1 Q What is that? 14:15:1

2 A Yes. So this is the kind of tumor that signals to 14:15:1
3 the physician a kind of exposure. So, for example,
4 if somebody comes into the clinic with a lung
5 cancer, the doctor typically asks, how long did you
6 smoke, because 90 percent of people with lung
7 cancers were cigarette smokers.

8 Mesothelioma is a signal tumor. The question 14:15:3
9 typically asked is, where were you exposed to
10 asbestos.

11 Q So mesothelioma is a signal or sentinel tumor for 14:15:4
12 asbestos exposure?

13 A That's correct. 14:15:4

14 Q Now, Doctor, is there also something in the 14:15:4
15 asbestos scientific literature known as a dose
16 response?

17 A Yeah, of course. That simply means the more you're 14:15:5
18 exposed to it, the more likely you are to get the
19 disease.

20 Q Now, the last concept I want to ask you about, is 14:16:0
21 there something known as a cumulative exposure or
22 cumulative disease process?

23 A Yeah, sure. 14:16:0

24 Q What does that mean? 14:16:0

25 A So this is very important, particularly for the 14:16:0

1 asbestos diseases and basically any kind of cancer,
2 because I just told you about dose response, the
3 more you're exposed to it, the more likely you are
4 to get disease. The disease is based on the
5 person's dose. How much did they get? Was it
6 enough for that person? If they got a dose and
7 then they got the disease, obviously it was enough
8 for that person.

9 But how did they get that dose is based upon 14:16:3
10 their background. Where were they exposed.
11 Wherever the person was exposed to asbestos and the
12 asbestos got into the air and they inhaled it
13 contributed to that -- produced that person's dose.

14 Q Doctor, if I give you an analogy for that, will you 14:16:5
15 tell me whether I've got it right as it relates to
16 asbestos and causing disease?

17 A Okay. 14:16:5

18 Q If I put a glass in the sink and the glass is empty 14:16:5
19 and the faucet is dripping and the drops fill the
20 glass and the overflow essentially is cancer, is
21 the process you're describing essentially all of
22 those drops coming together to cause that overflow?

23 A Yes. I mean, that's fair, except I have a better 14:17:1
24 one.

25 Q I would love your better one, please. 14:17:1

1 A So it's okay, except that a drop of water is no big 14:17:2
2 deal, right. But a better analogy would be a
3 cigarette smoker. And remember, cigarette smoking
4 has nothing to do with mesothelioma, but
5 understand -- so a person starts smoking as a
6 youngster, okay, in their teenage years and they
7 start smoking Camels or Lucky Strikes or whatever
8 it was. And then they switch a few years later and
9 they go to Marlboros or Parliaments or whatever
10 people smoked. And they buy cartons and they buy
11 packs and they borrow some cigarettes and they're
12 smoking through the decades, and then they show up
13 one day with a lung cancer.

14 What caused the lung cancer? Which brand? 14:18:0
15 Okay. Which pack? Which carton? Every one of
16 them added a carcinogen to that person's target
17 cell, and ended up -- and the process is the same
18 as I just described. The main carcinogen in
19 tobacco produces these oxygen radicals I was
20 telling you about. So it's really more of an
21 oxygen radical mediated cancer, but the concepts
22 are exactly the same. The more you're exposed to,
23 the more likely you are to get these changes. And
24 that's what dose response is all about, and that's
25 why it's a cumulative exposure.

1 Q And does that mean that mesothelioma is a disease 14:18:4
2 of cumulative exposure to asbestos?

3 A Exactly. 14:18:5

4 MR. GREENE: Doctor, those are all the 14:18:5
5 questions I have. Thank you so much.

6 THE WITNESS: You're welcome. 14:18:5

7 MR. GREENE: I'm sure someone else will have 14:18:5
8 some questions for you.

9 THE WITNESS: Sure. 14:18:5

10 MR. GREENE: Thank you. 14:18:5

11 MR. HARNEY: You're welcome. 14:19:0

12 THE COURT: Thank you. 14:19:0

13 I was going to give the jury just a few 14:19:0
14 seconds to stand up and stretch if you'd like
15 before cross-examination begins. We're not going
16 to go anywhere. I just thought you might want
17 to ...

18 MS. MALIK: And Your Honor, would it be all 14:19:1
19 right if I moved the flip chart up there?

20 THE COURT: Certainly. 14:19:1

21 MR. GREENE: Your Honor, will it be okay if at 14:20:1
22 whatever point this is used, if I can just get up
23 and go over there.

24 MS. MALIK: And I'll read out anything. 14:20:1

25 THE COURT: Would you like to position 14:20:1

1 | yourself now so you can see?

2 MR. GREENE: Sure, that's fine.

3 (A discussion was held off the record.)

4 CROSS-EXAMINATION

5 BY MS. MALIK:

6 | 0 Thank you, ladies and gentlemen. Thank you,

7	Dr. Brody.
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8 I've got a flip chart up here. I had two
9 professors who liked to write on the board, because
10 I think subconsciously I wanted to be one too. So
11 I'll write -- probably take a few notes just to
12 orient the jury if that's all right.

13 | A I'll see what you write.

14 Q Before I get started writing anything, I think you
15 said that you were first retained as an expert
16 witness in an asbestos case in 1989.

17 | A That's right.

18 Q That's 30 years ago?

19 | A I guess so.

20 Q But since 1989, is it fair to say you've testified
21 in front of hundreds of juries?

22 | A I'm sure.

23 Q And 99 percent of the time, about, you testified
24 for plaintiffs' firms?

25 A Right. And the other time I testified for

1 product -- asbestos product manufacturers who asked
2 me to give exactly the same testimony that I gave
3 here today. That's right.

4 Q And you just mentioned asbestos products. You've 14:21:5
5 testified on a number of different asbestos
6 products over the years; is that right?

7 A Sure. 14:21:5

8 Q That would include things like asbestos insulation? 14:22:0

9 A Yeah. 14:22:0

10 Q Pipe covering? 14:22:0

11 A Right. 14:22:0

12 Q Spray fireproofing? 14:22:0

13 A Sure. 14:22:0

14 Q And so you would agree that those products can 14:22:0
15 cause exposure to asbestos?

16 A No question. 14:22:1

17 Q And if those products are installed somewhere, they 14:22:1
18 can create exposures long after that installation;
19 right?

20 A Of course. 14:22:2

21 Q And the first time that you were retained to give 14:22:2
22 an opinion about cosmetic talc would be 2016 or
23 thereabouts?

24 A I think that's right. 14:22:3

25 Q And the 154 articles that you mentioned earlier 14:22:3

1 that are on your CV, none of those pertain to
2 cosmetic talc, do they?

3 A Well, none of them pertain to products actually, so 14:22:4
4 certainly not talc. I mean, my work has been
5 basically asbestos. It doesn't matter where it
6 comes from. The lung doesn't discriminate. So of
7 course, it has nothing to do with a specific
8 product. It has to do with any product that
9 releases asbestos.

10 Q And to that point, nothing in that slide show was 14:23:0
11 specific to Johnson's baby powder?

12 A No, it's specific to what asbestos does, regardless 14:23:0
13 of the source.

14 Q So likewise, you are not here to give any 14:23:1
15 particular opinions about any of Ms. Lewis'
16 exposures; correct?

17 A That's right. 14:23:2

18 Q And you haven't reviewed any of her medical 14:23:2
19 records?

20 A True. 14:23:2

21 Q And you're also not here to give any particular 14:23:2
22 opinions about the dose of asbestos that she may or
23 may not have been exposed to?

24 A No. None of that would affect the opinions that I 14:23:3
25 gave you today about how asbestos causes disease.

1 You'll, I'm sure, learn about all those other
2 things from other people.

3 Q Sure. And you had mentioned that asbestos is a 14:23:4
4 dose-response disease -- or mesothelioma is a
5 dose-response disease; right?

6 A That's right. 14:23:5

7 Q And that means that the greater the dose of 14:23:5
8 asbestos, the greater the risk?

9 A As I said, right. 14:23:5

10 Q And the lower the dose, the lower the risk; fair? 14:23:5

11 A Of course. 14:24:0

12 Q Everyone is exposed to asbestos all the time from 14:24:0
13 the air around us; is that fair?

14 A Yes, so this is what we call background. It's -- 14:24:0

15 Q And if it's all right with you, I'm just going to 14:24:1
16 write that word up here, background.

17 A Background, right. So background means that it's 14:24:1
18 what's in the ambient air. There are a few fibers
19 in the air as we walk around the city, and it's not
20 enough asbestos to cause disease. It's very, very
21 low, thousands of fiber per cubic centimeter. Very
22 low.

23 Q So you just said that it's not enough to cause 14:24:3
24 disease. Background, then, would be a safe level
25 of exposure?

1 A Well, in that sense, you know, the problem is that 14:24:4
2 there is no safe level above background. But if
3 you're below -- at background or below, there's no
4 evidence that it causes disease.

5 Q So background would be a safe level? 14:24:5

6 A It's hard to use the word safe because you don't 14:24:5
7 know if it's safe for everybody. I mean, there are
8 some cases where you don't know just what the
9 exposure is and the person gets a mesothelioma.
10 Maybe they were so highly susceptible, they got it
11 from the background. But I can't -- there's no
12 proof for that.

13 MS. MALIK: Just one second. 14:25:1

14 A If you're going to drag out something that says I 14:25:2
15 said it was safe, then fine. It's as safe as you
16 can get it.

17 Q All right. Maybe I don't. So I'm going to write 14:25:3
18 safe level here.

19 And you have also said before that there -- 14:25:5
20 you can get a billion asbestos fibers into a
21 thimble; right?

22 A True. 14:25:5

23 Q And so that's not a lot of fibers, is it, it's 14:25:5
24 really small?

25 A That's right. That's right. 14:26:0

1 Q And those -- it's true, is it not, that all of us 14:26:0
2 generally accumulate billions of fibers in our
3 lungs just from the background air?

4 A Well, I don't think it's necessarily true that we 14:26:1
5 all accumulate billions. There are some people
6 that have accumulated billions of fibers in their
7 lungs, but again, that's not a lot because, as you
8 pointed out, you can get a billion fibers into a
9 thimble. If you took my lungs and stretched them
10 out so they're not all crumbled up in my chest, the
11 surface area would cover this courtroom. We have a
12 huge surface area. So taking the thimblefuls and
13 sprinkling them around is not a lot.

14 Q Is not a lot. So I'm going to say that within the 14:26:4
15 background, there are billions of fibers; fair?

16 A Over time, yeah. I mean, it takes a lifetime. And 14:26:5
17 billions is high. It's more like millions with an
18 M that most people accumulate over time, not
19 billions.

20 Q I will put billions or millions. 14:27:0

21 A That's fine. That's over a lifetime. 14:27:0

22 Q Over a lifetime. 14:27:1

23 And another way to express a background level 14:27:2
24 is in fibers per cc; is that right?

25 A Right. 14:27:2

1 Q And a cc is a cubic centimeter? 14:27:2

2 A Correct. 14:27:2

3 Q That's about a size of a sugar cube? 14:27:2

4 A Correct. 14:27:3

5 Q And you said before that the background level of 14:27:3
6 asbestos can be as high as 0.001 fibers per cc?

7 A Right. That's correct. That's a thousandth of it 14:27:4
8 a fiber. What that means is -- if I could explain.

9 Q Of course. 14:27:4

10 A If you take a sugar cube, that's a cubic centimeter 14:27:4
11 of volume. Now, if you have .001 or a thousandth
12 of a fiber per cubic centimeter, that means in a
13 room like this, you'd need the volume of a thousand
14 sugar cubes or however many sugar cubes it would
15 take to fill that -- however volume you need to
16 put -- to fit a thousand sugar cubes to find a
17 single fiber, okay. So that's a very low number,
18 very low concentration of fibers. But that's high.
19 That's a high background.

20 Q Sure. And whether or not you say background is 14:28:3
21 this millions or billions over a lifetime --

22 A I'm sorry, I hate to interrupt you. 14:28:3

23 Q No, of course. 14:28:3

24 A But let's not confuse the billions and millions 14:28:4
25 with the .001. The billions and millions is what

1 you get over the lifetime of the person,
2 accumulating over time, okay, which at .001 I don't
3 know how long it would take to collect all those
4 fibers. I'm sorry I interrupted you.

5 Q That is fair enough. And this millions or billions
6 over a lifetime, you've said previously, is not
7 enough to cause mesothelioma; is that fair?

8 A That's correct.

9 Q And the high background level of 0.001 fibers per
10 cubic centimeter is also not enough to cause
11 mesothelioma?

12 A Correct.

13 Q Okay. So I'm going to just save a little space,
14 write enough to -- I'm going to abbreviate
15 mesothelioma as meso, because it's a really long
16 word.

17 So changing gears just a little bit, you
18 talked about animal studies when Mr. Greene was
19 speaking to you earlier. And you understand that
20 animal studies have produced mesotheliomas in
21 animals that have been exposed to asbestos?

22 A Sure. If you do the experiments, they're not easy
23 experiments to do. You have to expose a number of
24 animals over their lifespan to get a few cases.

25 Q And a well-conducted animal study would be

1 something that would be valuable to look at if
2 you're trying to determine what substances can
3 cause mesothelioma?

4 A They can be very helpful. 14:30:2

5 Q And you understand that those kinds of studies can 14:30:2
6 be done using talcum powder and applying that to
7 the animals?

8 A Well, they can, but they're unlikely to work in 14:30:3
9 producing mesotheliomas.

10 Q And that's fair, we can get to that in just a 14:30:3
11 second.

12 I'm going to show you now what's been 14:30:4
13 previously marked as Defense Exhibit No. 9471. I
14 have copies for everybody.

15 THE COURT: Thank you. And did the parties 14:31:1
16 stipulate to this exhibit?

17 MS. MALIK: This document has been stipulated 14:31:1
18 to.

19 THE COURT: Then the Court shows it admitted. 14:31:1

20 MS. MALIK: And permission to publish, Your 14:31:2
21 Honor.

22 THE COURT: Yes. 14:31:2

23 BY MS. MALIK: 14:31:2

24 Q All right. You've seen this article before, 14:31:2
25 haven't you?

1	A	Sure.	14:31:3
2	Q	And this is a study by Dr. Wagner? Did I say it	14:31:3
3		right?	
4	A	Wagner, yes.	14:31:3
5	Q	And a number of other authors as well; right?	14:31:3
6	A	That's right.	14:31:4
7	Q	Including Dr. Pooley?	14:31:4
8	A	That's right.	14:31:4
9	Q	And this was presented at the International	14:31:4
10		Symposium for the British Occupational Hygiene	
11		Society, is that it?	
12	A	Right, exactly. So this is not a peer-reviewed	14:31:5
13		scientific paper. This is a presentation at a	
14		conference that Dr. Wagner gave.	
15	Q	And you were actually at that conference, were you	14:32:0
16		not?	
17	A	Yes. People keep telling me I was. It was a long	14:32:0
18		time ago. I may very well have been there. I	
19		don't deny I was there. But I can't prove I was	
20		there either.	
21	Q	I wasn't there, so I can't either.	14:32:1
22	A	That's for sure.	14:32:1
23	Q	And you've heard of Dr. Pooley before, haven't you?	14:32:1
24	A	I've worked with Dr. Pooley, sure.	14:32:1
25	Q	And he's a well-respected scientist?	14:32:2

1 A He's a mineralogist, that's correct. 14:32:2

2 Q And of course Dr. Wagner was a mentor of yours? 14:32:2

3 A He was, yeah. 14:32:2

4 Q So this study here is of animals exposed to three 14:32:2
5 different substances; is that right?

6 A Let's see, it's talc. I don't know if it's three 14:32:4
7 different substances. I thought it was talc and
8 asbestos. Italian talc, chrysotile, and then they
9 have a control of saline. On page 649, it shows
10 the -- what they were exposed to.

11 Q And if you look over on page 648, the first line of 14:33:1
12 that says, "This particular talc is referred to in
13 the talc trade as Italian," and then there's five
14 zeros, right? Do you see that?

15 A Yeah. 14:33:2

16 Q You're aware that that's the talc used in Johnson's 14:33:2
17 baby powder for a period of time?

18 A Well, I'd heard that, but I can't testify to that. 14:33:2
19 I don't know that.

20 Q But you've heard that before? 14:33:3

21 A Sure. 14:33:3

22 Q And it says in that second paragraph a little -- 14:33:3
23 sort of middle way down, "No asbestos minerals of
24 either the tremolite or chrysotile varieties have
25 been detected in the many samples of this powder

1 examined."

2 You see that; right?

3 A That's what it says.

4 Q Then going over to the table that you were 14:33:4
5 mentioning on page 649, this study mentions that
6 there's these three substances, and in the fourth
7 column there, it says, "Number with mesothelioma."

8 Is that the number of animals that developed 14:34:0
9 mesothelioma in this experiment?

10 A Right. And that's what's called intrapleural 14:34:1
11 inoculation. In other words, the fibers were
12 injected directly into the pleural cavity right
13 onto the lung, bypassing all of the defenses,
14 and -- so go ahead. Do you have another question
15 about that?

16 Q So the first column there -- and I'm just writing 14:34:3
17 animal studies, and I'm going to put this study,
18 which is Wagner and Pooley. And we established
19 that that was Italian talc.

20 And could you tell the jury how many of these 14:34:5
21 animals developed mesothelioma when exposed to that
22 Italian talc?

23 A Well, it says zero, but you see there were only 18 14:34:5
24 of the animals with pure asbestos injected on it.
25 So I certainly wouldn't expect any from the talc,

1 which is -- which you'd like to say there's not a
2 lot of asbestos in there, so I wouldn't -- you
3 know, I don't know that you'd expect any, because
4 you get so few with the pure asbestos. Now, what
5 about inhaling it? I mean, that's in this paper
6 too.

7 Q And you did just mention the fact that the
8 chrysotile exposed animals got -- there were 18 of
9 them.

10 A Yeah, 18 out of 48 with a direct injection on
11 there. That means not very many. Less than half.

12 Q And the animals that were injected with that saline
13 control, they also got no mesotheliomas; fair?

14	A Of course.
----	--------------

15 Q There is also a study that you're familiar with,
16 another animal study conducted on Vermont talc.
17 Are you aware of that?

18 A Well, I don't know about that, but there's another
19 table in this paper that's very important. You
20 don't want to talk about that?

21 Q I'm sure your attorneys can talk about anything
22 they'd like to speak to you about.

23	A Okay, fine.
----	---------------

24 Q But you're aware that there's another study of
25 animals done on Vermont talc? You've seen that

1 before?

2 A I'm not sure which one you're talking about. 14:36:3

3 Q All right. I'll show it to you. 14:36:3

4 MS. MALIK: This is what's been previously 14:39:5
5 marked as Defense Exhibit 9476.

6 THE COURT: And has this exhibit also been 14:37:0
7 stipulated to?

8 MS. MALIK: I believe it has. 14:37:0

9 MR. FINCH: Yes, Your Honor. 14:37:0

10 THE COURT: All right, thank you. The Court 14:37:0
11 shows it admitted.

12 MS. WEGLARZ: And Your Honor, just for the 14:37:1
13 record, I haven't seen these, so I haven't
14 stipulated to them. But if there's an objection,
15 I'll make it as -- in due course. But no objection
16 right now.

17 THE COURT: All right, thank you. 14:37:2

18 And as to Kerr? 14:37:2

19 MR. DRUMKE: No objection, Your Honor. 14:37:2

20 THE COURT: All right, thank you. 14:37:2

21 BY MS. MALIK: 14:37:2

22 Q You've seen this study before, haven't you, Doctor? 14:37:2

23 A I certainly have. 14:37:2

24 Q And this is also an animal study. This is an 14:37:3
25 inhalation study; correct?

1 A That is right. 14:37:3

2 Q So if you go to the second page of this study, in 14:37:3
3 that second column, there is a paragraph with the
4 italicized words "talc powder." And that says,
5 "The talc aerosol was generated from Johnson's baby
6 powder, Lot 228P, provided by Johnson & Johnson."

7 Do you see that? 14:38:0

8 A Right. 14:38:0

9 Q So just like the study that we've just looked at by 14:38:0
10 Dr. Wagner, the authors of this study follow these
11 animals to see whether any of the ones exposed to
12 this Vermont talc developed mesothelioma; right?

13 A Right. 14:38:1

14 Q And none of the animals exposed to this talc 14:38:1
15 developed any mesotheliomas?

16 A Right. And we shouldn't be surprised, right, 14:38:2
17 because it's 228P. It's been prescreened to make
18 sure it had no asbestos in it, so why would we be
19 surprised?

20 Q Let's talk about that actually. So hang on, just 14:38:3
21 to keep us oriented. This is a study by Wagner.
22 This is Vermont talc. I'm going to show you now --
23 now, we won't put it up on the screen yet because I
24 want to make sure that you have, in fact, seen it
25 before. This is Plaintiffs' Exhibit 829. Here,

1 and a copy for Your Honor.

2 THE COURT: Mine's not marked. Is yours? 14:39:3

3 COURT REPORTER: No. 14:39:4

4 THE COURT: Oh, okay. And is there any 14:39:4
5 objection to this?

6 MR. GREENE: No, Your Honor. 14:39:4

7 MR. DRUMKE: No, Your Honor. 14:39:4

8 THE COURT: And are you moving to admit it as 14:39:5
9 well?

10 MS. MALIK: If there is no objection, I would 14:39:5
11 like to.

12 THE COURT: The Court shows 829 admitted, 14:39:5
13 plaintiffs'.

14 BY MS. MALIK: 14:39:5

15 Q You've seen this document before, haven't you, 14:39:5
16 Doctor?

17 A I have, yes. 14:40:0

18 Q Is this the document that you're relying on for 14:40:0
19 your statement that this talc lot 228P was
20 prescreened?

21 A Yes. 14:40:0

22 Q And this document says here in the third paragraph, 14:40:0
23 "Within the detection limits of x-ray" --

24 A Goniometer. 14:40:1

25 Q -- "goniometer" -- thank you -- "scanning and x-ray 14:40:1

1 powder camera analysis methods, no amphibole or
2 serpentine phases could be detected."

3 Did I read that right? 14:40:2

4 A Yes. 14:40:2

5 Q And when you say that this talc lot was 14:40:2
6 prescreened, is it that testing that you're
7 referring to?

8 A Well, I think so. I mean, that's what the note on 14:40:4
9 the back says.

10 Q And the note on the back, just so we can take a 14:40:4
11 look at what you're referring to, is from Bill
12 Ashton to Mr. Shelley. And it says, "It is the lot
13 of 1,000 cans set aside for everybody to do
14 everything on it."

15 A Correct. 14:41:0

16 Q And so the prescreening that you mentioned earlier 14:41:0
17 was this x-ray diffraction testing that's
18 referenced in this letter; correct?

19 A That's correct. 14:41:1

20 Q And you've stated previously that if a talc sample 14:41:2
21 was tested in this fashion and was shown not to
22 have any asbestos, that you wouldn't expect it to
23 be capable of causing mesothelioma?

24 A Well, it depends on how much asbestos. I mean, if 14:41:3
25 it has --

1 Q But I think my question is a little different, sir. 14:41:3

2 A Okay. 14:41:3

3 Q If a talc sample was, as you say, prescreened using 14:41:3
4 this method described here, and it showed to not
5 have any asbestos in it by this method, then you
6 would not expect that talc to be capable of causing
7 mesothelioma?

8 A Correct, that's correct. 14:41:5

9 Q But you're not aware of whether Johnson & Johnson 14:41:5
10 tested its talc by this method, are you?

11 A I don't know. 14:42:0

12 Q We can set that aside. 14:42:0

13 I want to go back to some of the animal 14:42:1
14 studies that you've conducted. You have done
15 animal studies where you exposed some rats and
16 mice, I believe, to chrysotile asbestos?

17 A Chrysotile, crocidolite, amosite, yes. 14:42:2

18 Q And when you were performing those studies, you 14:42:2
19 tested the chrysotile asbestos to see if it had any
20 contaminants in it; is that right?

21 A Sure. 14:42:3

22 Q And you found some tremolite asbestos when you 14:42:3
23 tested it?

24 A We did. 14:42:4

25 Q And the amount of tremolite asbestos that you found 14:42:4

1 was less than 1 percent; is that right?

2 A True. 14:42:4

3 Q And you did not report that in your published paper 14:42:4
4 about these studies; correct?

5 A No. I mean, there are a few other kinds of fibers 14:42:5
6 too, but they're not significant. In the face of
7 trillions of pure asbestos fibers, 1 percent of
8 anything else really isn't going to matter.

9 Q I'm just going to write tremolite asbestos. 14:43:2

10 And that less than 1 percent level you 14:43:3
11 wouldn't expect to be capable of causing
12 mesothelioma?

13 A In the face of pure asbestos, that's correct. 14:43:3

14 Q So I'm just going to write less than 1 percent 14:43:4
15 would not cause meso.

16 Moving away from animal studies, there are 14:44:0
17 also studies that can be done in populations of
18 people; correct?

19 A Sure, by epidemiologists, right. 14:44:1

20 Q And epidemiology is the best way to establish 14:44:1
21 causation of diseases in human populations?

22 A Correct. 14:44:2

23 Q And you've described it as the gold standard for 14:44:2
24 causation in human populations?

25 A Sure. 14:44:2

1 Q To study whether talcum powder causes mesothelioma, 14:44:2
2 you would want to look at people who were the most
3 exposed to that powder; right?

4 A I agree. 14:44:3

5 Q And you would agree that the people who are the 14:44:3
6 most exposed to cosmetic talc are the people who
7 work in the mines and mills; true?

8 A Well, I would think so, but you'd need to talk to 14:44:4
9 an epidemiologist about studies like that, whom
10 they would want to study, yeah.

11 Q That's fair. But it's common sense that talc 14:44:5
12 miners and millers have a higher dose than people
13 who use baby powder for some sort of --

14 A I would think so, but you need to know how they 14:45:0
15 were exposed, what kind of precautions were taken
16 for their exposure, sure.

17 Q And you're aware that there have been 14:45:1
18 epidemiological studies of cosmetic talc miners and
19 millers in Italy, France, Norway, Austria, and
20 Vermont; correct?

21 A That's what I understand, but you'd need to ask an 14:45:2
22 epidemiologist about those studies.

23 Q Sure. But you are aware that there's -- none of 14:45:2
24 those studies have shown any increased risk of
25 mesothelioma in any of those workers?

1 A That's what I understand. 14:45:3

2 Q And you mentioned with Mr. Greene the word 14:45:4
3 asbestiform, I think; right?

4 A Yep. 14:45:4

5 Q You are not a mineralogist; correct? 14:45:4

6 A True. 14:45:5

7 Q But you're aware that there are asbestiform and 14:45:5
8 nonasbestiform varieties of amphibole minerals;
9 right?

10 A That's right. 14:46:0

11 Q And it's your opinion that regardless of which one 14:46:0
12 of those it is, whether it's asbestiform or
13 nonasbestiform, if it's three times longer than it
14 is wide, it has parallel sides, it can cause
15 disease; is that fair?

16 A It wouldn't be nonasbestiform, then. If it's a 14:46:2
17 fiber and it has the mineral content of asbestos,
18 then it can cause disease.

19 Q Right. And I understand. And we'll talk to a 14:46:3
20 mineralogist about those distinctions.

21 A You don't need to talk to a mineralogist about 14:46:3
22 those distinctions. I can explain that. If it's a
23 fiber, if it's a biopersistent fiber, it can cause
24 disease. And if it has the mineral elemental
25 content of asbestos, it's asbestiform. If it

1 doesn't, if it's not a fiber, then you wouldn't
2 call it asbestiform.

3 Q And you are familiar with the term called cleavage 14:46:5
4 fragment; is that right?

5 A Sure. 14:47:0

6 Q Can you tell the jury what that is? 14:47:0

7 A Well, this is when a material has a structure 14:47:0
8 cleaved off of it, some of them may be fibers. The
9 cleavage fragments may have a fiber form and can
10 cause disease if they're inhaled.

11 Q And you've heard of Dr. Victor Roggli; right? 14:47:2

12 A Of course. 14:47:2

13 Q I think co-counsel might have some of his books on 14:47:2
14 the table there.

15 A And I might be an author on one of them as well. 14:47:2

16 Q All right. Some of your books. And he's a 14:47:3
17 pathologist like you; right?

18 A Well, he's a medical doctor, obviously. But yes, 14:47:3
19 we have interests in lung pathology, yes.

20 Q And you publish articles together? 14:47:4

21 A I have, several. 14:47:4

22 Q And I'm going to show you this. We won't publish 14:47:4
23 it yet. This has been marked for identification as
24 Defense Exhibit 10037. Dr. Brody, you're familiar
25 with this article; correct?

1 A Yes, I am. 14:48:2

2 Q And you've testified about this article previously? 14:48:3

3 A Yes. 14:48:3

4 Q And you stated before that both you and Dr. Roggli 14:48:3
5 published on the area of asbestos minerals?

6 A Yes. 14:48:3

7 Q And their capacity to cause diseases? 14:48:3

8 A That's right. 14:48:4

9 MS. MALIK: And so Your Honor, I would like to 14:48:4
10 publish this to the jury.

11 THE COURT: So are you asking that it first be 14:48:4
12 admitted or has it been stipulated to?

13 MS. MALIK: It has not been stipulated to. 14:48:5

14 MR. FINCH: It's not admissible. It's just 14:48:5
15 for cross-examination purposes.

16 MS. MALIK: So the jury can follow along. 14:49:0

17 THE COURT: And is there any objection? 14:49:0

18 MR. FINCH: No, not to that. 14:49:0

19 THE COURT: All right. Then you may show it 14:49:0
20 to the jury.

21 BY MS. MALIK: 14:49:0

22 Q All right. If we could just pull up the title of 14:49:0
23 this just to orient us. This is, as we said, by
24 Dr. Victor Roggli.

25 A Right. 14:49:1

1 Q And it's called "Measuring EMPs in the lung what 14:49:1
2 can be measured in the lung: Asbestiform minerals
3 and cleavage fragments"; right?

4 A Right. 14:49:2

5 Q It's in a journal called Toxicology and Applied 14:49:2
6 Pharmacology; right?

7 A Yes. 14:49:2

8 Q You're a peer reviewer on that journal; correct? 14:49:2

9 A I have reviewed papers for this journal. 14:49:3

10 Q And if we turn over to -- actually, just on this 14:49:3
11 first page in that second column, first full
12 paragraph here, Dr. Roggli says, "In addition, the
13 asbestos minerals also occur in a nonfibrous habit.
14 And these can fragment into cleavage fragments that
15 meet the criteria for a fiber, i.e., an aspect
16 ratio of at least three to one and roughly parallel
17 sides. Cleavage fragments of nonasbestiform
18 minerals have not been associated with
19 asbestos-induced diseases."

20 Do you see that? 14:50:1

21 A Right. Nonasbestiform minerals, right. 14:50:1

22 Q Okay. And you mentioned when you were speaking to 14:50:1
23 the jury earlier that asbestos to cause disease has
24 to be able to persist in the lungs?

25 A Biopersistence, right. 14:50:3

1 Q And so I want to just make this the last point that 14:50:3
2 I'll ask you about, which is we can call it
3 properties of asbestos, is that -- is
4 biopersistence the property of asbestos?

5 A That's right. 14:50:4

6 Q So for any fiber to be capable of causing disease, 14:50:5
7 it has to be biopersistent. Let's see if I spelled
8 it right.

9 What is biopersistence? 14:51:1

10 A Well, that means it stays in the lung for extended 14:51:1
11 periods of time for all of the asbestos varieties,
12 and that means through the life of the individual.
13 So that's what that means.

14 Q And you also mentioned that another property of 14:51:2
15 asbestos is that it binds to DNA and creates those
16 reactive oxygen species that you were talking
17 about; right?

18 A That's right. 14:51:3

19 Q And that's because asbestos has particular surface 14:51:3
20 characteristics; is that fair?

21 A True. 14:51:4

22 Q And you can't tell us as you sit here today what 14:52:0
23 the biopersistence of nonasbestiform amphiboles is?

24 A I'm not sure. 14:52:0

25 Q And you can't tell us likewise what the surface 14:52:0

1 characteristics of nonasbestiform amphiboles are?

2 A I haven't studied that. I don't know. 14:52:1

3 Q We've been talking and you've talked with me now 14:52:2
4 for a couple hours almost, right?

5 A Well, it's now a couple hours. 14:52:2

6 Q Do you charge an hourly rate for your testimony? 14:52:3

7 A Yes. 14:52:3

8 Q What is that rate? 14:52:3

9 A \$625 per hour. 14:52:3

10 Q And over the course of your testifying career, 14:52:3
11 you've earned almost \$5 million testifying?

12 A Yes. 14:52:4

13 MS. MALIK: I don't have any further questions 14:52:4
14 at this time, but someone else may. Thank you
15 Dr. Brody.

16 THE WITNESS: You're welcome. 14:52:5

17 THE COURT: And are you going to take the 14:52:5
18 chart with you or leave it up here?

19 MS. MALIK: I am happy to -- I will move it so 14:52:5
20 it's not in anybody's way.

21 THE COURT: Thank you. 14:53:0

22 Ms. Weglarz. 14:53:2

23 MS. WEGLARZ: Thank you, Your Honor. 14:53:2
24
25

1 CROSS-EXAMINATION 14:53:2

2 BY MS. WEGLARZ: 14:53:2

3 Q Hello, Dr. Brody. 14:53:2

4 A Hi. 14:53:3

5 Q I just have a few more questions. I'm not going to 14:53:3
6 cover anything that was just covered hopefully.

7 Just to make clear, Dr. Brody, you're not the 14:53:3
8 kind of medical doctor that diagnoses disease; is
9 that right?

10 A I'm not a medical doctor. I'm still a Ph.D. 14:53:4

11 Q Right. 14:53:4

12 A That's right. 14:53:4

13 Q So you don't treat patients, that sort of thing? 14:53:4

14 A Of course not. Of course not. 14:53:5

15 Q And you've never spoken to Ms. Lewis or to any of 14:53:5
16 her family members; is that right?

17 A No. This wouldn't change or influence my testimony 14:53:5
18 in any way.

19 Q But you agree with me; right? 14:54:0

20 A Of course. 14:54:0

21 Q And before -- we had the chance to take your 14:54:0
22 deposition and get your opinions in this case; is
23 that right?

24 A Yes. 14:54:0

25 Q And before that deposition, you had done no work on 14:54:1

1 this case; is that right?

2 A Right. 14:54:1

3 Q And you spoke to Mr. Greene before your deposition 14:54:1
4 and he gave you a hypothetical about talc; is that
5 right?

6 A I think so. 14:54:2

7 Q He didn't give you any other information about 14:54:2
8 products; is that right?

9 MR. GREENE: Just, Your Honor, may I object. 14:54:3
10 My hypothetical was about asbestos. It wasn't
11 specific to talc.

12 THE COURT: And do you have a response? 14:54:3

13 BY MS. WEGLARZ: 14:54:3

14 Q Did he give you a hypothetical about talc products? 14:54:3

15 A You know, we'd have to look at what it was. I 14:54:4
16 don't remember specifically what the hypothetical
17 was. It's probably, as Mr. Greene says, related to
18 asbestos, since that's all I talked about today.

19 MR. GREENE: Your Honor, my hypothetical was 14:55:0
20 about asbestos exposure, not specific to talc.

21 MS. WEGLARZ: I'm going to pass the transcript 14:55:0
22 around just so we can read it. Here you go.

23 MR. GREENE: Are you talking about his 14:55:1
24 deposition or today?

25 MS. WEGLARZ: At the deposition. 14:55:1

1 MR. GREENE: Okay, I apologize. I thought you 14:55:1
2 were talking about today. Okay.

3 BY MS. WEGLARZ: 14:55:1

4 Q Do you want to see your deposition? 14:55:1

5 A Only if I have to. 14:55:2

6 Q It's page 5. It'll make it go easier. 14:55:2

7 MS. WEGLARZ: Do you want a copy? 14:55:2

8 MS. MALIK: Sure. 14:55:2

9 A Where are we? 14:55:3

10 MR. GREENE: I apologize, which page? 14:55:3

11 MS. WEGLARZ: Page 5. 14:55:3

12 BY MS. WEGLARZ: 14:55:3

13 Q I'll just let you review that and then we can go 14:55:4
14 back to the questioning.

15 Let's see here, around line 6 through 15. Let 14:55:4
16 me know when you've had a chance to look at that.

17 A Okay. 14:56:1

18 Q So you were asked to assume a hypothetical about 14:56:1
19 talc; right?

20 A I was asked to assume that Ms. Lewis has been 14:56:2
21 diagnosed with a pleural mesothelioma. She was a
22 long-term decades user of a talc product. That's
23 what this says.

24 Q Right. Were you asked to assume anything else, 14:56:3
25 anything about Delco?

1	A	Not that I recall.	14:56:4
2	Q	Any other --	14:56:4
3	A	I'm sorry. If it's not in here, obviously no.	14:56:4
4	Q	So nothing else other than the talc; right?	14:56:4
5	A	I believe that's correct.	14:56:4
6	Q	And you haven't read Ms. Lewis' deposition	14:56:5
7		testimony; is that correct?	
8	A	Correct.	14:56:5
9	Q	And I just asked you about Delco, but you have no	14:56:5
10		idea about any of her work at Delco; right?	
11	A	You are right.	14:57:0
12	Q	Before you -- you've seen this slide before;	14:57:1
13		correct?	
14	A	Sure.	14:57:1
15		MS. WEGLARZ: And Your Honor, I am, just for	14:57:1
16		illustrative purposes, publishing the slide that	
17		Dr. Brody is familiar with. And I believe counsel	
18		is familiar with it too.	
19	BY MS. WEGLARZ:		14:57:2
20	Q	There's a number of things that have to occur	14:57:2
21		before a person is what we call exposed to	
22		asbestos; is that right?	
23	A	Right.	14:57:3
24	Q	And again, you've seen this slide before?	14:57:3
25	A	Sure. It's a fine slide.	14:57:3

1 Q And you agree that all of these nine steps on this 14:57:4
2 slide are required before we call a person exposed
3 to asbestos; is that right?

4 A Well, when you get down, you know, fibers cause 14:57:5
5 disease, the exposure part goes up to worker
6 breathes fibers. And that's the exposure.

7 Q And the fibers that we're concerned about with the 14:58:0
8 exposure are the ones that actually get into the
9 lungs; is that right?

10 A Well, yeah, it says he's breathing the fibers, so 14:58:0
11 obviously they're going in and out of the lungs,
12 yeah.

13 Q And let's start with the first step. Obviously the 14:58:1
14 product has to contain asbestos; right?

15 A Right. 14:58:2

16 Q And you're not here to tell this jury about whether 14:58:2
17 or not any of the products in this -- that are at
18 issue in this case contained asbestos; is that
19 right?

20 A Well, I've seen evidence that talc contains 14:58:2
21 asbestos, but any of the other products I know
22 nothing about.

23 Q And you're not here to tell the jury how -- if the 14:58:3
24 products really -- if the products did contain
25 asbestos, how that asbestos is released into the

1 air from the products?

2 A The technical details of how it might be released, 14:58:4
3 you're right.

4 Q And you're not here to say if and how the fibers, 14:58:5
5 if they're released, become airborne; is that
6 right?

7 A I think if asbestos is released into the 14:58:5
8 environment where it's floating in the air, it's
9 available for inhalation. You don't have to be a
10 scientist to even know that.

11 Q But you're not here to talk about the aerodynamics 14:59:1
12 and that sort of thing?

13 A Well, yeah, but I could. 14:59:1

14 Q Right, right. Let's go on. And you're not here to 14:59:1
15 say whether or not any individual particles are the
16 right size or the right dynamics to actually get
17 into the breathing zone; correct?

18 A Well, if it's asbestos, it certainly has all of 14:59:3
19 those features which would allow it to get deep
20 into the lung.

21 Q Sometimes particles can be too big and they can't 14:59:3
22 actually get into the nose and past the defense
23 mechanisms; correct?

24 A That's true, sometimes, yeah. 14:59:4

25 Q And you said this before, we all have some kind of 14:59:4

1 background level of asbestos in our lungs.

2 A That's right. 14:59:5

3 Q The average person does not get mesothelioma, no 14:59:5
4 matter how much asbestos they breathe?

5 A Does that sound familiar? Yes, I said that to the 15:00:0
6 jury. Of course.

7 Q And although asbestos is the only known 15:00:0
8 environmental cause of mesothelioma, you'll agree,
9 it's not the only cause of mesothelioma?

10 A Well, it's the only environmental cause. I mean, 15:00:1
11 you can get a few cases from high energy radiation
12 to the chest wall. There are a few cases from
13 inflammation, but, I mean, that's really the only
14 environmental cause.

15 Q Right, but that doesn't mean it's the only cause. 15:00:3
16 Like you just said, radiation can cause
17 mesothelioma?

18 A Well, what I said was high energy culminated 15:00:3
19 radiation directed to the chest wall, not just
20 radiation.

21 Q Right. It's a specific kind of radiation? 15:00:4

22 A That's right. 15:00:5

23 Q A very specific kind? 15:00:5

24 A That's right. 15:00:5

25 Q Inflammation, specific inflammation can cause it? 15:00:5

1 A I said that, that's right. 15:00:5

2 Q And -- 15:00:5

3 A Very few -- I'm sorry, very few cases. 15:00:5

4 Q And there are even some mesotheliomas that just 15:01:0
5 happen spontaneously?

6 A That can happen, but if there's an established 15:01:0
7 asbestos exposure, it's a waste of time to be
8 talking about spontaneous mesothelioma.

9 Q And when we talk about spontaneous mesothelioma, 15:01:1
10 that means it just happens; right?

11 A Well, it happens because we accumulate genetic 15:01:1
12 errors naturally over time. We all do. But very
13 few people get any kind of cancer from that
14 mechanism.

15 Q But it happens sometimes? 15:01:3

16 A It does happen, right. 15:01:3

17 Q And in addition to asbestos, there's other kinds of 15:01:3
18 fibers that can cause mesothelioma; is that right?

19 A Oh, sure. 15:01:3

20 Q Erionite can cause mesothelioma? 15:01:4

21 MR. GREENE: Objection, Your Honor. There's 15:01:4
22 no evidence of any of that in this case and we had
23 a pretrial motion on this.

24 THE COURT: I'll sustain the objection. 15:01:4

25 MR. GREENE: Thank you. 15:01:5

1 MS. WEGLARZ: Okay. I'll move on. 15:01:5

2 BY MS. WEGLARZ: 15:01:5

3 Q Two more questions. They're easy ones. You're 15:01:5
4 familiar with the term friable?

5 A Sure. 15:01:5

6 Q What does friable mean? 15:01:5

7 A Well, it means that a material -- if a material is 15:02:0
8 friable, it comes apart easily and you can crumble
9 it in your hand, basically.

10 Q It means basically you can use your own hand 15:02:0
11 pressure and pulverize something to dust in your
12 hand; correct?

13 A I just said that, yes, absolutely right. 15:02:1

14 MS. WEGLARZ: Right. You probably said it 15:02:1
15 better too.

16 Thank you, Dr. Brody. I have no further 15:02:1
17 questions.

18 THE WITNESS: You're welcome. 15:02:2

19 MS. WEGLARZ: I'll pass the witness. 15:02:2

20 THE COURT: Thank you. 15:02:2

21 MR. GREENE: Your Honor, I have just a handful 15:02:2
22 of follow-up, if I may.

23 MR. DRUMKE: No questions. 15:02:3

24 THE COURT: You have no questions for 15:02:3
25 Dr. Brody?

1 MR. DRUMKE: No questions. 15:02:3

2 THE COURT: All right, then, Counsel, you may 15:02:3
3 redirect. 15:02:3

4 MR. GREENE: Thank you, Your Honor. 15:02:3

5 REDIRECT EXAMINATION 15:02:3

6 BY MR. GREENE: 15:02:4

7 Q Hello again, Dr. Brody. I have just some follow-up 15:02:4
8 on some of the questions that you were just asked. 15:02:4

9 First of all, you've been asked about 15:02:5
10 background. Do you recall those questions? 15:02:5

11 A Yes. 15:02:5

12 Q If someone is exposed to asbestos from a product 15:02:5
13 and fibers become friable, is it fair to describe 15:02:5
14 that as background? 15:02:5

15 A No, that wouldn't be background. That would be in 15:03:0
16 addition to background. 15:03:0

17 Q And you were asked some questions about fibers and 15:03:1
18 volume of fibers. Are you familiar with what's 15:03:1
19 known as a fiber per cc quantification? 15:03:1

20 A Sure. We talked about that, yeah. 15:03:2

21 Q If someone is exposed to one fiber per cc over the 15:03:2
22 course of a day, wouldn't that amount to millions 15:03:2
23 of fibers? 15:03:2

24 A Oh, yeah. I mean, that's a very high 15:03:3
25 concentration, actually. That's significantly -- 15:03:3

1 that's orders -- several orders of magnitude above
2 background, sure.

3 Q Is that because when we're talking about one fiber 15:03:4
4 per cc, is a cc a squared centimeter?

5 A That's right. That's the sugar cube size, one 15:03:4
6 cubic centimeter, that's right.

7 Q So if you're breathing in one fiber per cc, you're 15:03:5
8 not just breathing in one fiber; is that correct?

9 A No. Everybody time you take a breath, you're 15:03:5
10 inhaling thousands of cubic centimeters through the
11 day. So you're -- so every time, if there's a
12 fiber per cubic centimeter, that's going to be
13 thousands, many thousands of fibers over the day
14 easily.

15 Q Would that -- could that amount to millions of 15:04:1
16 fibers over the day?

17 A That's correct. That's the industrial hygienists 15:04:1
18 who actually figure out the actual numbers of those
19 things.

20 Q And we're going to hear from hopefully an 15:04:2
21 industrial hygienist later on, but I just wanted to
22 follow up on some of those questions.

23 In regards to what I asked you to assume at 15:04:2
24 your deposition, did I ask you to come here today
25 to offer an opinion on any particular product?

1 A No. 15:04:3

2 Q Did I ask you to come here today to offer any 15:04:3
3 opinion specific to Mrs. Lewis?

4 A No. But you can be sure that this is our 15:04:4
5 scientific understanding of what happened to
6 Mrs. Lewis. There's no reason to think that what
7 happened in her lungs is any different than what's
8 happened to anybody who develops the disease
9 mesothelioma.

10 Q Now, counsel for Johnson & Johnson started off 15:04:5
11 asking you about in-place asbestos products. Do
12 you recall those questions?

13 A Yes. 15:05:0

14 Q Is asbestos only hazardous if it's friable? 15:05:0

15 A Well, it's hazardous only if it gets aerosolized. 15:05:1

16 Q Fair enough. 15:05:1

17 A Now, it doesn't necessarily have to be friable, 15:05:1
18 which means break up in your hand. There are
19 different degrees of availability to -- or
20 different degrees through which that can be
21 released. Some of it's tough to get out of a
22 product and some of it would be very easy.

23 Q Now, you were also asked some questions about some 15:05:3
24 of the many rat studies performed with talc and
25 asbestos. Do you recall those questions?

1 A Yes. 15:05:4

2 Q And you touched on this earlier when I was asking 15:05:4
3 you questions. Didn't you say that not every rat
4 that you exposed to asbestos develops disease?

5 A Well, I -- talking about mesothelioma, it's like in 15:05:4
6 people, only a few of the animals at the end of
7 their lifespan get the disease mesothelioma. So
8 they're hard experiments to do. They're very
9 expensive. They take the lifetime of the animal.
10 And that's been done. There are a number of
11 examples of scientists who have done those
12 experiments. I didn't need to.

13 Q Now, you were also asked some questions about 15:06:1
14 miners. Do you recall those questions?

15 A Yes. 15:06:1

16 Q If one miner out of 392 gets mesothelioma, wouldn't 15:06:1
17 that be a sign of an increased risk of disease?

18 A Oh, yeah. I mean, I'm sure an epidemiologist can 15:06:2
19 explain this better, but one in 400 people, that's
20 a high rate, actually. I mean, there are only
21 3,000 cases in this whole country of billions of
22 people.

23 Q Now, I know you said this earlier, but I just want 15:06:3
24 to -- I know you said this earlier, but I just want
25 to clarify. Among the asbestos fibers, all of them

1 are capable of causing disease; is that correct?

2 A That's correct.

3 Q And does that include chrysotile?

4 A Oh, sure.

5 Q Doctor, you were also shown a document that's
6 Defendants' Exhibit 9471, this inhaled particles
7 document. Do you have that in front of you?

8 A I do, yes.

9 Q Good. Could you grab that for me, please.

10 A Yeah.

11 Q Doctor, do you know what tremolite is?

12 A Sure.

13 Q What's tremolite?

14 A So it's a kind of amphibole asbestos. I told you,
15 remember, the chrysotile is in the serpentine
16 group, then there's the amphibole group that has
17 five varieties of asbestos. Tremolite is one of
18 those.

19 Q Now, could you turn to page 648 in that document
20 for me.

21 A Okay.

22 Q Right in the middle of that document, you see in
23 the middle of the second paragraph that starts, "A
24 mineralogical study ..." It reads, "A
25 mineralogical study of talc mine itself showed

1 tremolite can be found in isolated sections of the
2 mine but this cannot be traced into the final
3 product."

4 What does that tell you?

15:07:5

5 A Well, in other words, there's tremolite has been 15:07:5
6 shown to be in there, this mineral, but when they
7 looked at the final product, they didn't find the
8 tremolite. That's what that means to me.

9 Q But is tremolite a carcinogenic fiber?

15:08:0

10 A No question.

15:08:1

11 Q And can tremolite cause mesothelioma?

15:08:1

12 A Oh, yes. That's been shown. There are populations 15:08:1
13 who have been exposed to tremolite who have
14 mesothelioma.

15 Q Does this say that tremolite was found in the talc 15:08:2
16 mine?

17 A That's what it says.

15:08:2

18 Q Doctor, when you were being asked questions by 15:08:2
19 Johnson & Johnson, you mentioned the table that's
20 on page 650. Could you turn to that for me.

21 A All right.

15:08:3

22 Q What were you going to say about the table when you 15:08:3
23 took a look at that?

24 A Well, this is the result of the inhalation 15:08:3
25 experiment. So down at the bottom, you can see

1 that they were looking at different kinds of
2 tumors. They didn't even look at mesotheliomas,
3 but obviously they didn't find any or they would
4 have reported them. But the Italian talc, even the
5 superfine chrysotile, after 12 months of exposure,
6 they only found one case of adenocarcinomas,
7 apparently no mesotheliomas.

8 So the bottom line is they really don't -- you 15:09:1
9 can't say anything about whether or not talc -- if
10 the high concentrations of pure asbestos don't
11 cause mesothelioma, then you can't say anything
12 about anything else. And that's one of the
13 problems with looking at these kinds of studies.
14 And this wasn't a peer-reviewed paper and I'm not
15 surprised.

16 Q Now, Doctor, the last question I wanted to ask you 15:09:4
17 is you were also shown a document that's Exhibit
18 No. DX-9476, "Inhalation of talc baby powder by
19 hamsters."

20 Do you have that in front of you? 15:10:0

21 A Yes. 15:10:0

22 Q Do you -- have you seen that study before? 15:10:0

23 A Sure. 15:10:0

24 Q Do you have an understanding of how the talc in 15:10:0
25 that study was prescreened?

1 A Well, that's the document that the young lady 15:10:1
2 showed me, the attorney showed me earlier, where
3 she pulled this out and asked me if I had seen
4 this. I said yes. And they're looking at some
5 analysis, x-ray diffraction on sample 228P. Now,
6 228P is the asbestos identified in this paper you
7 showed me.

8 MS. MALIK: Objection, Your Honor. Misstates 15:10:3
9 the document. It's talc, not asbestos.

10 MR. GREENE: Your Honor, the document speaks 15:10:4
11 for itself.

12 MS. MALIK: It does not say that. 15:10:4

13 THE COURT: So where does the document say 15:10:4
14 asbestos?

15 MR. BICKS: He misspoke. 15:10:5

16 BY MR. GREENE: 15:10:5

17 Q Could you tell us what the document says, Doctor? 15:10:5

18 A I misspoke. What did I say? 15:10:5

19 THE COURT: Thank you. 15:10:5

20 Q Why don't we just start over. 15:10:5

21 THE COURT: The Court sustains your objection. 15:11:0

22 A All right. So the hamsters were exposed to baby 15:11:0
23 powder, talc. And the exhibit, the plaintiffs'
24 exhibit that was shown to me, is related to
25 identification of talc. And they used x-ray

1 diffraction looking for asbestos, and it says they
2 didn't find any in this 228P, which is the lot that
3 was used in the inhalation studies with the
4 hamsters. And they didn't find anything, and I'm
5 not surprised because it was prescreened and
6 they -- the note on the back said, "This lot of
7 thousand cans is set aside for everybody to do
8 everything on."

9 Now, it's good that they could prescreen talc 15:11:4
10 and find no asbestos in it, fine. But then they
11 went ahead and used it in the animal experiments
12 and didn't find any tumors. Well, of course not.

13 Q Doctor, can I also turn your attention in 15:11:5
14 Exhibit 9476, the "Inhalation of talc baby powder
15 by hamsters" study. Can you turn to the last page,
16 page -- well, I guess it's second-to-last page,
17 page 11 of 12.

18 A Okay. 15:12:1

19 Q And there's a series of footnotes at the end of the 15:12:1
20 document. And do you see in the left column at the
21 top of page 11 of 12, or 128, where it says, "The
22 most plausible ..."

23 Do you see that? 15:12:2

24 A The most plausible explanation, yes. 15:12:2

25 Q And does that say, "The most plausible explanation 15:12:2

1 for the absence of talc-induced lesions in our
2 hamsters appears to lie in the nature of the talc.
3 It was cosmetic grade talc in which no asbestos
4 fibers were found."

5 Did I read that correctly?

6 A Yeah, no kidding.

7 Q And is that what you're talking about it being
8 prescreened?

9 A Yeah, sure. They were not found. These were the
10 lots that were prescreened and found to not have
11 asbestos.

12 MR. GREENE: Thank you, Doctor. Those are all
13 the questions I have.

14 THE WITNESS: You're welcome.

15 MS. MALIK: Just a couple of questions on
16 follow-up.

17 RE CROSS-EXAMINATION

18 BY MS. MALIK:

19 Q Mr. Greene just asked you if exposures that a
20 person might get from products would be in addition
21 to background.

22 Do you recall that?

23 A Right.

24 Q But you would agree that if someone's cumulative
25 exposure stays below -- at or below background,

1 that wouldn't be capable of causing mesothelioma?

2 A I agree. 15:13:3

3 Q You were also -- you also mentioned the animal 15:13:3
4 studies are expensive; is that right?

5 A True. 15:13:4

6 Q I'd like to point you to the exhibit we were just 15:13:4
7 talking about, DX-9476, the Wagner hamster study.

8 A Okay. 15:13:5

9 Q And if you look at page 11 of 12, same page we were 15:13:5
10 just speaking of. Down in the acknowledgments
11 section, it says, "This work was performed by
12 Battelle Pacific Northwest Laboratories for the
13 Johnson & Johnson Research Foundation under," and
14 then it lists a contract number.

15 So does that indicate to you that Johnson & 15:14:1
16 Johnson sponsored this study?

17 A Well, it sounds like it, yes. 15:14:2

18 Q I believe you testified in the past that that's a 15:14:2
19 good thing for companies to do, to conduct studies
20 on their products.

21 A Yeah, it can be, sure, if it it's done correctly 15:14:2
22 and all the appropriate points are made about the
23 products that are used and materials and the
24 science, of course.

25 MS. MALIK: Okay. That's all my questions. 15:14:4

1 Thank you.

2 THE WITNESS: You're welcome. 15:14:4

3 MR. GREENE: No further questions, Your Honor. 15:14:4

4 THE COURT: All right. Thank you. 15:14:4

5 We're going to take a break before our next 15:14:4

6 witness. I assume, are we finished with Dr. Brody?

7 MR. GREENE: Yes, Your Honor. 15:14:5

8 THE COURT: In the sense that you don't have 15:14:5

9 to testify anymore. Thank you. All right, then.

10 MR. GREENE: Your Honor, if we could just 15:15:0

11 clarify, is it my understanding that the Court

12 doesn't allow the jury to ask questions of a

13 witness?

14 THE COURT: Oh, yes. Do the jurors have any 15:15:1

15 questions of Dr. Brody? And if so, remember we had

16 that procedure where you write it down and give it

17 to the Court, and Bridget can accept it for if you

18 have a question.

19 THE WITNESS: I'm ready. 15:15:2

20 THE COURT: So I take it back. 15:15:2

21 MR. GREENE: Can't let you go yet, Doctor. 15:15:3

22 THE COURT: And then if counsel could 15:15:4

23 approach.

24 (A bench conference was held outside the 15:17:1

25 hearing of the jury.)

1 MR. GREENE: This question has been answered. 15:17:1
2 This question I think is relevant.

3 MS. MALIK: I don't think a foundation has 15:17:4
4 been laid that he knows anything about that.

5 MR. GREENE: I think he knows the scientific 15:17:4
6 literature.

7 MS. MALIK: He says he doesn't. He's not an 15:17:5
8 epidemiologist.

9 MR. FINCH: It has nothing to do with 15:17:5
10 epidemiology. They're asking about the sex of the
11 animals.

12 MS. MALIK: Is it sex of the animals? 15:17:5

13 MR. FINCH: It just says sex of -- they're 15:17:5
14 asking about his experience. It's what effect does
15 sex have, if any --

16 THE COURT: In the basic research models. 15:18:0

17 MR. FINCH: In the basic research models, 15:18:0
18 that's what he's talking about.

19 THE COURT: I think test subjects. So then 15:18:0
20 there's no objection?

21 MR. GREENE: That's well within his expertise, 15:18:1
22 Your Honor.

23 MR. FINCH: We think he should be able to 15:18:2
24 answer that.

25 THE COURT: Any objection from defendants? 15:18:2

1 MS. MALIK: If it is limited to animal 15:18:2
2 research models, then that is fine.

3 MR. GREENE: I have no problem with that 15:18:2
4 limitation, no.

5 THE COURT: And then as to the other question? 15:18:3

6 MS. MALIK: It's been answered. 15:18:3

7 MR. FINCH: He's already answered it. 15:18:3

8 THE COURT: All right. Thank you. 15:18:3

9 (Resumption of live trial proceedings.) 15:18:3

10 THE COURT: Well, first, I'm going to review 15:18:3
11 the rule as to asking questions just so everybody
12 knows. You write them down. You give them to the
13 Court. I show them to the lawyers. We discuss it.
14 And then the Court decides. And it says, "I'll
15 decide if your questions are permitted by law. And
16 if it is permitted, I will ask the witness each
17 question. If it is not permitted, do not speculate
18 why a question was not asked or what the answer
19 might have been."

20 Okay, so I'm just saying, no hurt feelings, 15:19:0
21 all right.

22 So the question is, what effect does sex have, 15:19:1
23 if any, in the basic research models? Does sex
24 condition the effect at asbestos? And this would
25 be limited to the research subjects.

1 THE WITNESS: Yes, of course. Well, we've 15:19:2
2 used both male and female animals in all of our
3 experiments, and we can't find any difference, and
4 I don't know any scientist, using asbestos, who's
5 found any difference in the response of males and
6 females at the structural level or genetic level.

7 So sex does not seem to play a role in the 15:19:4
8 development of mesothelioma. Males and females get
9 the disease at essentially the same rates based on
10 the exposures. If the exposures are the same, then
11 it doesn't matter if it's a male or a female.

12 THE COURT: Thank you, Dr. Brody. 15:20:0

13 All right, now the Court will release you for 15:20:0
14 a break. The admonishment, which I've got up on
15 the computer.

16 Before we recess, I have told you not to talk 15:20:2
17 about the case. Keep an open mind concerning it.
18 Do not discuss the evidence or the case with anyone
19 else, and you are not permitted to talk -- no one
20 else is permitted to talk to you about the case.
21 Keep an open mind, and keep an open mind about the
22 case until it is submitted to you for deliberation.
23 And that would include among yourselves as well.

24 During a recess, you should not talk also to 15:20:5
25 the attorneys, staff, witnesses about anything. In

1 addition, no research. And lastly, no photo taking
2 or recording in the courtroom. Cell phones should
3 only be used for taking notes.

4 Thank you. With that admonishment, enjoy your 15:21:0
5 break. We'll be back in court in 15 minutes.

6 THE BAILIFF: All rise. 15:21:1

7 (Whereupon, the jury exited the courtroom.) 15:21:1

8 THE COURT: And we are off the record. 15:21:3

9 MR. DRUMKE: We have one matter, Your Honor. 15:21:3

10 MR. GREENE: May we approach? 15:21:4

11 THE COURT: Yes. 15:21:4

12 MR. FINCH: Your Honor, we have reached a 15:22:0
13 settlement with Defendant Kerr, even though it's
14 confidential, but we are all in agreement.

15 MR. DRUMKE: That's correct, Your Honor. 15:22:1

16 THE COURT: All right, then. So Kerr 15:22:1
17 Corporation has responded by Mr. Drumke that they
18 have reached a settlement?

19 MR. DRUMKE: Yes, sir. 15:22:2

20 THE COURT: All right, then. The Court has 15:22:2
21 made a record of this event and you are released.

22 MR. DRUMKE: We'll submit the proper 15:22:2
23 stipulations in the due course.

24 THE COURT: Now, the Court doesn't rule on any 15:22:3
25 pending motions until it receives the

1 documentation. But we'll just leave everything
2 shown as pending.

3 MR. DRUMKE: Thank you, Your Honor. 15:22:4

4 THE COURT: Thank you. 15:22:4

5 (A brief recess was taken.) 15:22:5

6 THE BAILIFF: All rise. 15:48:2

7 (Whereupon, the jury entered the courtroom.) 15:48:2

8 THE COURT: Welcome back, and we are ready to 15:48:3
9 begin our next witness. Oh, you may be seated.

10 Everyone maybe be seated.

11 Before we do so, the Court would like to 15:48:4
12 inform the jury that Kerr Corporation is no longer
13 a party to the lawsuit, and you should not
14 speculate as to the reason why they are no longer a
15 party to the lawsuit.

16 So thank you very much. And I think we're 15:49:0
17 ready to begin with our next witness. Would
18 plaintiff like to call them.

19 MR. FINCH: Yes. Good afternoon, ladies and 15:49:0
20 gentlemen. May it please the Court, counsel,
21 ladies and gentlemen, our next witness is Dr. Barry
22 Castleman.

23 THE COURT: Sir, would you please raise your 15:49:2
24 right hand.

25

1 BARRY CASTLEMAN, PH.D., 15:49:2
2 a witness called on behalf of the Plaintiffs, having 15:49:2
3 been first duly sworn by the Court, took the stand and
4 testified as follows:
5 THE COURT: Thank you. You may be seated. 15:49:2
6 DIRECT EXAMINATION 15:49:3
7 BY MR. FINCH: 15:49:3
8 Q Good afternoon, Dr. Castleman. 15:49:3
9 A Good afternoon, Mr. Finch. 15:49:3
10 Q Could you state and spell your name for the jury. 15:49:4
11 A My name is Barry Castleman, C-A-S-T-L-E-M-A-N. 15:49:4
12 Q And where do you work and where do you live? 15:49:4
13 A I live in Maryland. 15:49:4
14 Q I have a document here in my hand, and I believe 15:49:5
15 you can see it on the screen in front of you, in
16 front of you, which is your curriculum vitae. Did
17 you put together a curriculum vitae for us, Doctor?
18 A That's right. This is a summary of my professional 15:50:0
19 background.
20 Q And is it appropriate to call you a doctor? 15:50:0
21 A Yes, I think so, because I'm testifying about the 15:50:1
22 subject of my doctoral thesis.
23 MR. FINCH: Your Honor, we would offer at this 15:50:1
24 time as Plaintiffs' Exhibit 2 Dr. Castleman's CV.
25 THE COURT: Any objection? 15:50:2

1 MR. BICKS: No objection. 15:50:2

2 THE COURT: Court shows it admitted without 15:50:2
3 objection. And could the Court have a copy of it.

4 MR. FINCH: Sure. My copy has my notes on it, 15:50:3
5 but ...

6 THE COURT: Thank you. 15:50:3

7 BY MR. FINCH: 15:50:4

8 Q Your CV has your education right there, but could 15:50:4
9 you give the jury a brief rundown of your
10 educational background.

11 A I originally was trained as a chemical engineer, 15:50:5
12 and then I went back to school after working
13 briefly for the chemical industry and got master's
14 training in environmental engineering and air
15 pollution control. And my master's thesis was
16 about the health effects of asbestos since I became
17 interested in asbestos at that time, in 1970 and
18 1971.

19 And then I went back to school about ten years 15:51:1
20 later at the Johns Hopkins School of Hygiene and
21 Public Health in Baltimore, where I grew up, and
22 graduated in 1985 with a Doctor of Science from the
23 school of public health. And my doctoral thesis
24 was called "Asbestos: An historical case study of
25 corporate response to an industrial health hazard,"

1 which is basically a case study of public health
2 failure to prevent preventable disease on a very
3 large scale.

4 Q And you got all of your degrees from Johns Hopkins?

5 A Yes.

6 Q Is it fair to say that for over 40 years you've
7 studied and practiced in the area of asbestos and
8 other occupational and environmental health
9 problems?

10 A Yes, ever since really the early '70s.

11 Q You said your dissertation was on asbestos as a
12 health hazard; is that right?

13 A Yes.

14 Q Have you also published a book that's been widely
15 circulated about that issue?

16 A Yes, yes.

17 Q Can you tell the jury, what's this -- what is this
18 book and what's it about?

19 A Well, the book is called Asbestos: Medical and
20 Legal Aspects. The first edition was published in
21 1984, and it was largely identical to my doctoral
22 thesis. It contained some additional material.
23 And it's been expanded four times. So the fifth
24 edition, it's now twice the size of my doctoral
25 thesis, and the fifth edition was published in

1 2005.

2 Q And does this book in general collect information 15:52:4
3 both in the scientific literature and in the files
4 of corporations about what was known or knowable
5 about the hazards of asbestos at various points in
6 time?

7 A Yes. It's about the public health and corporate 15:52:5
8 history of knowledge about asbestos as a health
9 hazard.

10 Q We'll talk a little more about that book later, but 15:52:5
11 as part of your work, do you consult around the
12 world on asbestos-related health issues?

13 A Yes. 15:53:0

14 Q Have you been involved in world trade issues as 15:53:0
15 they relate to asbestos?

16 A Well, I've been involved in a case that went before 15:53:1
17 the World Trade Organization. I've been involved
18 with people in over two dozen countries where I've
19 gone to those countries and worked with people on
20 the problem of asbestos and public health.

21 Q Have you testified before the United States 15:53:2
22 Congress on issues related to public health and
23 asbestos?

24 A Yes. The first time was in 1973 when I was a local 15:53:3
25 health official talking about community exposure to

1 asbestos.

2 Q Have you done that, testified, by invitation to 15:53:4
3 labor organizations on issues of asbestos?

4 A Yes. 15:53:4

5 Q Are you a member of -- I see on your CV you 15:53:4
6 provided consulting to the U.S. Council on
7 Environmental Quality, the National Science
8 Foundation, the U.S. Federal Trade Commission.
9 Without going through in detail, what is the
10 consulting assignment you have you're most proud
11 of?

12 A Well, the World Bank and the World Health 15:54:1
13 Organization are fairly recent. I'm pleased with
14 them that I was able to write documents about
15 substitutes for asbestos that they published and
16 that contributed to their efforts to ban asbestos
17 worldwide.

18 Q What is the Collegium Ramazzini? 15:54:2

19 A The Collegium Ramazzini is named after the author 15:54:3
20 of the first book on occupational diseases
21 published in 1700. And so this is a group that was
22 organized in 1982 and has experts on occupational
23 and environmental health from all over the world.
24 They're editors of journals, chairmen of
25 departments in universities, and they're limited to

1 180 people from around the world who are members of
2 this group. Occasionally they issue statements or
3 documents that are helpful in dealing with toxic
4 substance control around the world.

5 Q Are you a member of the Collegium Ramazzini? 15:55:1

6 A Yes. 15:55:1

7 Q How long have you been such a member? 15:55:1

8 A Since 2004. 15:55:1

9 Q And one of only 180 scientists in the world are 15:55:1
10 members of that organization?

11 A That is right. 15:55:2

12 Q Have you testified in criminal cases involving 15:55:2
13 asbestos?

14 A Yes. 15:55:3

15 Q Could you tell the jury a little bit about that? 15:55:3

16 A Well, in Italy, they've actually prosecuted 15:55:3
17 businessmen for not protecting workers who
18 subsequently developed occupational cancer. And in
19 this one case, the defendant was a multibillionaire
20 Swiss asbestos magnate who owned asbestos factories
21 all over the world and had operated as the chief
22 executive officer of this enterprise from the time
23 he was 29 years old in 1976 for 15 more years. He
24 was being prosecuted for creating an environmental
25 disaster in Italy.

1 And I testified at the invitation of the 15:56:1
2 community most grievously affected by the operation
3 of their biggest factory in Italy, in northern
4 Italy and talking about the sharing of information
5 between the big asbestos companies at the time that
6 he took over and in the years before and slightly
7 after the time that he took over as the chief
8 officer of this family-owned enterprise.

9 Q And you have plans to go back to Italy to work on 15:56:4
10 asbestos health-related issues in the near future?

11 A Yes. 15:56:4

12 Q As part of your background and gaining knowledge 15:56:5
13 about asbestos and asbestos diseases, have you
14 researched the publicly available published
15 literature on asbestos diseases?

16 A Yes. 15:57:0

17 Q We heard from Dr. Brody earlier that the disease, 15:57:0
18 asbestosis and lung cancer and mesothelioma are all
19 associated with asbestos exposure. You have
20 researched when it became known or knowable in the
21 scientific literature that that happened, that
22 those diseases were caused by asbestos?

23 A Yes, I basically tried to find everything that was 15:57:2
24 ever published about the hazards of asbestos up
25 through around 1965, anywhere in the world.

1 Q Part of that information went into this big fat 15:57:2
2 book?

3 A Right. That's the background, and the rest of it 15:57:3
4 is the corporate knowledge documents that have been
5 unearthed in legal discovery and putting it
6 together to try and analyze what happened in terms
7 of the history of asbestos and what went wrong in
8 terms of not preventing more preventable disease.

9 Q So what was outside and publicly available to 15:57:5
10 scientists and researchers, you examined, but you
11 also, through discovery in lawsuits like this, were
12 able to look at the files inside of companies and
13 see what they were talking about at various points
14 in time; is that fair?

15 A Right. Legal discovery is the greatest research 15:58:0
16 tool I've ever seen.

17 Q In addition to your reviewing documents, did you 15:58:1
18 have opportunities to interview some of the real
19 pioneers when it came to asbestos disease research?

20 A Yes. That was one of the things that I did in 15:58:2
21 doing this historical research, I tracked down a
22 bunch of old-timers who published some of them back
23 as far as 1931 about asbestosis and interviewed
24 them.

25 Q I showed the jury a picture of this man in opening 15:58:3

1 statement. Can you just tell us who he is and how
2 you knew him and what interactions you had with
3 him?

4 A This is Dr. Irving Selikoff. He was a medical 15:58:5
5 doctor in New York. In 1964, he published a very
6 widely cited study on the mortality experience of
7 asbestos insulation workers. There had been many
8 reported insulation workers dying from asbestosis
9 and cancers associated with asbestos, but no one
10 had ever taken a look at a population of these
11 people and tracked down what their study of their
12 mortality experience would show.

13 You don't pick up the cancers when you do 15:59:2
14 surveys of people who are actively employed.
15 That's -- that story only comes out in a mortality
16 study, not a morbidity study. So in constructing
17 this study, with the cooperation of the union, who
18 provided the names of all its members in New York
19 and New Jersey in 1942, he was able to see how many
20 of them had died by 1962 and then showed that there
21 was this extraordinary excess of deaths from lung
22 cancer, mesothelioma, asbestosis, and other forms
23 of cancer above what would have been expected based
24 on the vital statistics of New York and New Jersey
25 for males of that age and in that number. So

1 that's an epidemiology study he did on the
2 mortality experience of these workers.

3 Selikoff then remained very prominent in
4 pressing for the creation of government regulatory
5 agencies; OSHA, the Occupational Safety and Health
6 Administration, created in 1971; and the
7 Environmental Protection Agency; and other -- and
8 then the regulations these agencies would come out
9 with, using their new authority to protect public
10 health from things like asbestos, certainly
11 including asbestos.

12 Q And have you attended scientific conferences where
13 Dr. Selikoff and others were present to discuss
14 various asbestos-related diseases?

15 A Yes. I think the earliest one I went to where
16 Dr. Selikoff was there was 1973.

17 Q Have you also been at a conference where Johnson &
18 Johnson employees were there relating to asbestos
19 and talc issues?

20 A Yes. There was one in 1977 where I spoke about the
21 export of hazardous industries in developing
22 countries, but there was a section on talc as a
23 dust hazard in the conference.

24 Q We'll get to that in a little bit later.

25 Now, Doctor, have you come and talked to

1 juries in courtrooms in other places about your
2 testimony as an occupational and environmental
3 health policy expert and the public health history
4 as it relates to asbestos?

5 A Yeah. 16:01:5

6 Q And you've actually testified in this very 16:01:5
7 courtroom to juries in Indiana about that subject?

8 A Yes. 16:01:5

9 Q You have testified at my law firm's request on 16:01:5
10 occasion in cases involving people with
11 asbestos-related diseases; is that fair?

12 A Yes, I have. 16:02:0

13 Q I assume you get compensated for your time? 16:02:0

14 A Yes. 16:02:0

15 Q What was your testimony before the World Bank and 16:02:1
16 the World Health Organization about, just briefly?

17 A Well, with the World Health Organization, I was 16:02:1
18 mostly writing about substitutes for asbestos
19 cement sheets and pipes which are the -- that
20 accounts for 95 percent of all the asbestos use in
21 the world today, almost all of it in developing
22 countries.

23 And so the emphasis was on the care that needs 16:02:3
24 to be taken when you're dealing with these kinds of
25 materials, if they're already in place, and the

1 need to find substitute materials, wherever
2 possible, in new construction and replacement.

3 So, you know, I did research. I contacted 16:02:5
4 people, companies that I had known that had made
5 asbestos products that had been former adversaries,
6 and then when they went to nonasbestos products,
7 suddenly they flipped and wanted to see asbestos
8 banned so they wouldn't have to compete against
9 asbestos. And they could tell me valuable
10 information on the comparative costs of production
11 with the asbestos and the nonasbestos products that
12 they converted to.

13 So interviews with companies like that in 16:03:2
14 Brazil and South Africa were very helpful in
15 assembling the information I needed for these
16 reports.

17 Q Have you applied the knowledge you have gained 16:03:3
18 through your work in learning about asbestos
19 medical and legal aspects to help people in the
20 third world and around the world to help them
21 reduce their potential exposures to asbestos?

22 A Yes. Almost from the beginning of my work, I saw 16:03:4
23 that there was a dramatic increase of imports of
24 asbestos products into the United States,
25 subsequent to the creation of these new regulatory

1 agencies. And I thought, well, if we stopped at
2 the border and declare the problem solved, we might
3 kill more people than we save. So I started
4 working with people in Mexico and lots of other
5 countries.

6 MR. FINCH: Your Honor, at this time I'd offer 16:04:1
7 Dr. Castleman as an expert in occupational and
8 environmental health policy and public health
9 history as it relates to asbestos.

10 MS. WEGLARZ: No objection. 16:04:2

11 MR. BICKS: No objection, Your Honor. 16:04:2

12 THE COURT: Thank you. You may proceed. 16:04:2

13 BY MR. FINCH: 16:04:2

14 Q Doctor, have I asked you to come here and talk to 16:04:2
15 the jury today about your research about asbestos
16 and its role in public health?

17 A Yes. 16:04:3

18 Q Is that sometimes known by lawyers as state of the 16:04:3
19 art?

20 A Yes. 16:04:4

21 Q Is that -- what does that really boil down to is 16:04:4
22 what was known or knowable at any particular point
23 in time?

24 A Right. 16:04:4

25 Q I showed this chart to the jury in opening 16:04:5

1 statement. Would you take a minute to look at it,
2 and then I'm going to get into details of it.

3 First of all, is it generally accurate? 16:05:1

4 A Yes. 16:05:1

5 Q Could you walk the jury through some of the major 16:05:1
6 studies and articles over the years that show that
7 the medical and scientific community and community
8 of asbestos producers learned these things at
9 various points in time about asbestos?

10 A Sure. Just by way of hitting the highlights, the 16:05:3
11 first English language publication about the
12 hazards of breathing asbestos dust was a government
13 report from Great Britain, the Annual Report of the
14 Chief Inspector of Factories and Workshops for the
15 year 1898. So they were way ahead of us in terms
16 of their response. They had a medical inspector of
17 factories, and they published these annual reports.

18 And the annual report of the year 1898 noted 16:05:5
19 that the lady inspectors of factories, as they were
20 called, had identified lung disease in factories
21 where asbestos was being processed, and they said
22 that the dust needs to be controlled and that it
23 was a serious hazard. So that was the beginning of
24 recognition of this.

25 In 1924 -- well, between 1898 and 1924, in 16:06:2

1 1918, there were the first publications in the
2 United States, 1917 and 1918, in radiology
3 journals. So doctors were beginning to use the
4 chest x-ray as a diagnostic tool, and they showed
5 the chest x-ray films of people exposed to
6 different types of dusts, including asbestos, to
7 show the different types of abnormal films, chest
8 x-ray films these people had.

9 And also in 1918, there was a U.S. government
10 report published by the Bureau of Labor Statistics
11 on mortality in dusty trades. It was a report
12 about 400 pages long. And it had several pages on
13 asbestos and its hazards.

14 It was written by an actuary for the
15 Prudential Insurance Company, Frederick Hoffman,
16 and it noted that there had been reports of death
17 in Britain reported by the Annual Reports of the
18 Chief inspector in 1906, 1907, 1911, and that it
19 was generally -- the report said it was the general
20 practice to decline people for life insurance by
21 American and Canadian life insurance companies on
22 account of the assumed health injurious nature of
23 their occupation.

24 So the word "asbestosis" hadn't yet appeared
25 in the medical literature. The statistics Hoffman

1 presented related to deaths attributed to pneumonia
2 and tuberculosis, but the insurance companies had
3 already identified asbestos workers as bad risks
4 for life insurance even so.

5 Q That was a hundred years ago you're talking about? 16:08:1

6 A Yes. 16:08:1

7 Q Could you continue, in the 1920s and '30s, what 16:08:1
8 became known or knowable about asbestos?

9 A In 1924, there was a case reported in the British 16:08:2
10 Medical Journal, which is in every medical library
11 I've ever walked into. The British Medical Journal
12 report described a woman who had died at the age of
13 33 with what the pathologists writing the report
14 called fibrosis of the lung due to asbestos dust.
15 She had started working in an asbestos factory at
16 the age of 13. She had become disabled by the time
17 she was 26, and she died at 33.

18 And so he published about the abnormal chest 16:08:5
19 x-rays, about the abnormal pathology of her lungs
20 at autopsy, and described that. And within the
21 next couple of years, the word "asbestosis" was
22 used to describe this lung scarring condition, and
23 additional cases were reported in the British
24 Medical Journal and in other journals.

25 The Journal of the American Medical 16:09:1

1 Association subsequent to the publication of three
2 reports in the British Medical Journal at the end
3 of 1927, in the next month, January of 1928, the
4 Journal of the American Medical Association had an
5 editorial called "Pulmonary Asbestosis," warning
6 doctors in the United States that with a large and
7 growing asbestos industry here, surely there were
8 also going to be cases of this disease in the
9 United States, and citing the British articles.

10 And then again in the 1930s, the Journal of 16:09:4
11 the American Medical Association had another
12 editorial on asbestos, and in this case noting that
13 the British authorities were moving toward making
14 asbestosis a compensable occupational disease under
15 their workers' compensation law.

16 Also in 1930, the first epidemiology study was 16:10:0
17 published where a factory inspector in Britain
18 conducted a survey of over 300 people who worked in
19 asbestos factories, examined them, and found that
20 26 percent of them had asbestosis. These are
21 people who are actively employed. And the report
22 found that none of the 89 people with less than
23 five years in the industry had asbestosis yet.

24 And Meriwether, the author of the report, 16:10:3
25 described this as a maturation period, that you

1 don't get sick within the first months or years of
2 exposure, no matter how massive the dust exposure
3 is; but over time, the interaction of the mineral
4 fibers with your lung tissues, it's going to cause
5 this lung scarring disease. And you will
6 eventually start to become short of breath upon
7 exertion, reduce chest expansion when you take a
8 deep breath, those kinds of clinical signs.

9 Q And this -- you mentioned Meriwether. Is this the 16:11:1
10 cover page from that 1930 report, "Report on
11 Effects of Asbestos Dust on the Lungs, Dust
12 Suppression in the Asbestos Industry"?

13 A Right. And this is a report that was submitted to 16:11:2
14 the Parliament by the factory inspectorate and was
15 the subject of editorials in the British Medical
16 Journal and The Lancet when it was published. So
17 these are -- this was a report that received a
18 great deal of prominence at the time of its
19 publication.

20 Q And The Lancet is a medical journal published in 16:11:3
21 what country?

22 A The Lancet is like the British Medical Journal. It 16:11:3
23 covers the full range of medical subjects. It's a
24 general medical journal. It's the world's oldest
25 medical journal.

1 Q And it's published here in the United States of 16:11:4
2 America?

3 A Well, it's available in every medical library I've 16:11:4
4 ever walked into, like the British Medical Journal.

5 Q And in this 1930s study, was there a discussion 16:11:5
6 about the importance of educating people who were
7 potentially exposed to asbestos about the danger?

8 A Yes. Meriwether emphasized that workers needed to 16:12:0
9 be educated to a sane appreciation of the risk,
10 given this delayed effect that this dust has and
11 the fact that it had no warning properties at all.
12 You know, it just seemed like ordinary dust might
13 be in the air after vacuuming the courtroom. It
14 was like that.

15 Q As a public health scientist, why is it so 16:12:2
16 important to warn people who might be exposed to
17 unseen -- or hazards they don't know are there?

18 A Well, because otherwise how are they supposed to 16:12:4
19 know? I mean, if the dust has no warning
20 properties. If it was like a paint solvent that
21 made you gag or chlorine gas that would burn when
22 you breathe it, you'd know the stuff is bad for
23 you, at least in terms of its immediate effects.

24 But if you have something that has such a long 16:12:5
25 delay, immortal danger, that's clearly something

1 that people need to have explained to them, if
2 they're going to take precautions seriously. And I
3 basically recognized this as a 22-year-old engineer
4 before I had any training in public health.

5 When I worked in the chemical industry and I
6 had guys 40 years older than me working for me, I
7 figured I couldn't just stand there like Napoleon
8 and order them to do this and do that without
9 telling them why. So I always tried to look up
10 what I could about the health effects of the
11 chemicals that we were handling at the research
12 center, which changed from month to month, so that
13 they could be warned about the particular types of
14 effects that each of those substances might cause
15 and so that they'd be on guard if they were
16 starting to observe some of those effects, to
17 attribute it to the chemical exposure and to,
18 therefore, be more careful about limiting their
19 exposure.

20 Q When in time did the first reports first surface
21 that asbestos caused cancer, specifically lung
22 cancer, and when was it conclusively established
23 that asbestos caused lung cancer?

24 A The first case reports were published in the United
25 States and in England in 1935. And again in 1936,

1 more in Britain. And in 1938, a German doctor
2 published a couple more cases of -- lung cancer and
3 asbestosis is what I'm talking about, case reports
4 where the individual died with both of these
5 diseases. And lung cancer was far less common then
6 than it's since become.

7 So it struck these doctors as alarming. And 16:14:3
8 the German paper was titled "The Occupational
9 Cancer of Asbestos Workers." He noted that in all
10 of the six cases, just six cases in the literature,
11 his two and four earlier ones, that there was
12 always 15 to 21 years between the beginning of
13 exposure and the time that the person died, that --
14 and so there was some of these people dying at the
15 normal age of lung cancer, 71. But others were
16 dying in their 40s, which was unusual for lung
17 cancer. But there was that consistency about the
18 latent period.

19 And that there were -- the fractional number 16:15:0
20 of people who were known to have died with lung
21 cancer as a fraction of the total number in -- who
22 had died with asbestos was two out of 12 in both
23 Britain and in Germany. And so again, this is way
24 above -- one out of six is way above the 2 to
25 6 percent that was the normal rate of lung cancer

1 in general autopsies. And so this Nordenham also
2 pointed out.

3 And he also noted that in one case there were 16:15:4
4 two primary cancers of the lung in the same
5 individual. They weren't metastases. They were
6 separate primary cancers. He said, this is a
7 carcinogen acting here. And immediately Germany
8 made lung cancer a compensable occupational
9 disease, and this was announced in an editorial in
10 the most prominent medical journal in Germany, the
11 German Medical Weekly in the beginning of 1939 in
12 an editorial on asbestosis.

13 Q And when did -- in the United States did the 16:16:1
14 conclusion become reached among the medical and
15 scientific community that asbestos caused lung
16 cancer?

17 A Well, there were case reports appearing in the 16:16:2
18 literature around the world. And by 1944, the
19 Journal of the American Medical Association had an
20 editorial on environmental cancer listing asbestos
21 as one of about 10 or 12 substances that were known
22 and suspected of causing occupational cancer.

23 And in 1949, the Journal of the American 16:16:4
24 Medical Association had another editorial, this
25 time using as the news peg the report from the

1 British Factory Inspectorate, that of the 235
2 deaths they were aware of over a 22-year period
3 involving asbestosis, 13 percent of these people
4 had cancers of the lung and pleura.

5 Now, the normal rate of lung cancer or cancers 16:17:0
6 of the lung in pleura in the general population, in
7 the U.S. at that time was 1 percent. And so the
8 editorial in the Journal of the American Medical
9 Association said this is quite striking, that
10 there's such a great excess of pulmonary cancer.

11 And they were talking about cancers of the 16:17:2
12 lung and pleura, that pleural cancers were being
13 counted with the lung cancers in the British
14 statistics. And so this was highlighted and
15 emphasized in this editorial in the most widely
16 available medical journal in the United States.

17 Q Are you familiar with a scientist called Sir 16:17:4
18 Richard Doll?

19 A Yes. 16:17:4

20 Q Who was Sir Richard Doll, and how does he play into 16:17:4
21 the story of asbestos and lung cancer generally?

22 A Well, Doll was an epidemiologist. He was a medical 16:17:5
23 doctor also, but he did statistical studies on
24 human populations. And he published very prominent
25 papers on lung cancer and smoking in 1950 and 1952,

1 which went a long way to establishing the
2 connection.

3 And so in 1955, Doll published a study on lung 16:18:1
4 cancer in a population of asbestos workers, found
5 that there were more than ten times the expected
6 rate of lung cancer in these workers. Even though
7 he didn't have smoking histories, these people were
8 all gone by the time he's doing the study.

9 And interviewing relatives for smoking 16:18:3
10 histories is very unreliable. There was no reason
11 to expect that smoking could possibly expect --
12 explain that -- these men didn't smoke ten times as
13 much as men in the general population, and there's
14 no reason to think that they would -- that smoking
15 could explain such a high excess risk as Doll
16 found.

17 Q Let's talk specifically about the disease 16:19:0
18 mesothelioma. When were there first reports of
19 mesothelioma as a separate cancer in the medical
20 literature, and when was it conclusively
21 established that asbestos was the culprit?

22 A Well, the first doctor to attribute the pleural 16:19:1
23 mesothelioma to asbestos exposure was a German
24 doctor, Dr. Wedler, W-E-D-L-E-R.

25 Q And you reference this in your book? 16:19:2

1 A I did. 16:19:3

2 Q And it's on page 105. The book doesn't go back 16:19:3
3 into evidence, but just so the jury can see it.
4 This is talking about cases reported of
5 mesothelioma?

6 A Right. And what I'm noting in the table is that 16:19:4
7 Wedler's report, he notes two cases of pleural
8 mesothelioma, and among the people who have been
9 autopsied in Germany who had died with asbestosis,
10 and that was enough to convince Wedler that this
11 very rare cancer was an occupational cancer of
12 asbestos workers.

13 And even though this was published in the 16:20:0
14 middle of World War II, it was abstracted in
15 Britain eight months after it was published. And
16 it was then republished in the United States after
17 that. So Wedler's report, even though it appeared
18 in 1943, was still carried over here within a short
19 time.

20 So he was the first one to say that asbestos 16:20:2
21 causes mesothelioma. There would be cases
22 reported, including Richard Doll reported one that
23 he counted in with the lung cancers in his 1955
24 report that we talked about. And now in 1960 came
25 a report from South Africa of 33 cases of pleural

1 mesothelioma.

2 Q Is this the Wagner you're -- the jury's heard a 16:20:4
3 little bit about Chris Wagner before. This is that
4 study you're talking about?

5 A Yes. 16:20:5

6 Q Describe what that was. 16:20:5

7 A In 32 of these 33, he was able to track down a 16:20:5
8 history of asbestos exposure, and half of them an
9 environmental exposure, not an occupational
10 exposure. It wasn't from their work that they got
11 exposed. It was just from living in an area where
12 a particular type of asbestos was mined.

13 Q And between 1960 and 1964, did more and more 16:21:1
14 articles get published in the medical literature
15 linking mesothelioma to asbestos exposure?

16 A Yes. And one of the things that the doctors noted 16:21:2
17 in the British Medical Journal and letters, for
18 example, was that a lot of these people didn't have
19 asbestosis. They had an occupational exposure to
20 asbestos, but they hadn't had a real heavy
21 exposure. We're not talking about people who had
22 extensive asbestosis. In many cases, they had
23 little or no evidence of asbestosis, and yet they
24 were dying of this very rare cancer that was
25 increasingly being attributed to asbestos exposure.

1 In 1962, from Belfast, 15 cases were reported, 16:21:5
2 and they were occurring throughout the shipyard
3 trades, not just the insulation workers who had the
4 most exposure with asbestos. So the dust was just
5 around in this environment and a lot of the workers
6 were exposed to it and were getting this cancer.

7 And then there was this big conference in the 16:22:1
8 United States in 1964 which --

9 Q I don't know if the jury has heard in great detail, 16:22:2
10 can you tell the jury about what happened in 1964
11 in New York City and who sponsored that conference
12 and what was -- who generally attended it and what
13 they talked about as it related to asbestos?

14 A This was a three-day conference. It was held at 16:22:3
15 the Waldorf Astoria Hotel in New York.
16 Dr. Selikoff organized the conference through the
17 New York Academy of Sciences. He brought experts
18 in from all over the world, appeared from
19 Australia, South Africa, Britain, European
20 countries, and made presentations about studies
21 that they had done on the lethality of asbestos.

22 This is one of the first things I came across 16:23:0
23 when I started reading about asbestos in 1970,
24 which really shocked me, the scale of this as a
25 public health hazard that was so evident from this

1 volume of all these papers.

2 And so in this conference, among other things, 16:23:2
3 new information was presented showing that a
4 mortality study in Britain found that not only was
5 mesothelioma a disease that you could get from
6 occupational exposure to asbestos -- what they did
7 was they identified 76 cases of mesothelioma from a
8 London hospital, and they went and interviewed all
9 the survivors -- they interviewed the survivors of
10 all these people, all the people that died, and
11 then they picked a population of 76 people who were
12 still living in a nursing home or something who
13 could also be interviewed as a control group, a
14 comparison group. And they asked them about every
15 job they'd ever had that could have exposed them to
16 asbestos, neighborhood exposure, household contact.
17 And what they found was it showed us a lot more
18 occupational asbestos exposure in the mesothelioma
19 group than in the equal number of controls.

20 But putting that aside, there was also quite 16:24:1
21 an excess of household contact cases, people whose
22 exposure only came from living in the same
23 household as somebody that worked with asbestos and
24 came home with the dust on their clothes, hair,
25 shoes, car, lunch box, and contaminated the living

1 environment with these virtually indestructible
2 mineral fibers by coming home with the dust every
3 day from work.

4 And then they excluded the occupational and 16:24:4
5 the household contact cases and they said, what
6 about living within a half mile radius of an
7 asbestos air pollution point source, and they found
8 still it was statistically significant excess of
9 mesothelioma cases which met that criteria.

10 So this was a very powerful study that Muriel 16:25:0
11 Newhouse and Hilda Thompson published at this
12 conference in identifying in a very powerful way
13 that it didn't take much asbestos exposure to get
14 mesothelioma. You didn't need to have a job that
15 exposed you to it for years in order to be at risk
16 of this occupational cancer or environmental
17 cancer.

18 Q Was this conference widely publicized, both not 16:25:2
19 only in the medical press, but in the popular
20 press, like the newspapers?

21 A Yes. I mean, there was an article in the New York 16:25:3
22 Times a couple weeks before it occurred. There
23 would have probably been more publicity if some of
24 the companies hadn't raised Cain about Selikoff
25 handing out press releases. The press releases

1 weren't handed out, but they came up in legal
2 discovery of Asbestos Textile Institute trade
3 association minutes where the people were bragging
4 about how they had suppressed release of press
5 releases and copies were in the files of the trade
6 association.

7 Q Were there articles in that conference, later 16:26:0
8 published in a book the next year, the New York
9 Academy of Sciences put them all in a book that
10 anybody could go to a medical library and get -- I
11 mean, this is a reprint, but this was available by
12 1965?

13 A Yes. I mean, I've got -- my original copy was a 16:26:1
14 paperbound cover that's kind of not in as good
15 condition. But it was published -- it was
16 Volume 132 of the annals of the New York Academy of
17 Sciences. So you could just look it up in the
18 medical library, and that's how I found it.

19 Q Who is W.C. Hueper of the National Cancer 16:26:3
20 Institute?

21 A Well, Dr. Hueper was the leading author of articles 16:26:3
22 on occupational and environmental cancer in the
23 world in the 1940s and '50s and '60s. He published
24 about 350 articles, books, chapters in books, and
25 editorials, and he was the author of the unsigned

1 editorials in the Journal of the American Medical
2 Association I mentioned in 1944 and 1949 who was
3 invited to contribute them by the editor.

4 And Hueper was one of the people that I 16:27:0
5 interviewed in doing this research. He was still
6 around when I started this investigation in 1976.
7 He died in 1978.

8 Q And this is from Hueper's article in 1965? 16:27:1

9 A I'm sorry, he was at the conference, and he made a 16:27:2
10 presentation emphasizing nonoccupational as well as
11 occupational exposure.

12 Q "Asbestosis and asbestos cancer hazards related to 16:27:3
13 inhalation to asbestos exists not only for
14 asbestosis workers proper engaged in the direct and
15 regular production, processing, handling, and using
16 of asbestos-containing materials, but also for the
17 large number of individuals who may sustain such
18 contacts on incidental basis."

19 Was that the thrust of a lot of the literature 16:27:5
20 at this conference, how dangerous asbestos was when
21 it comes to mesothelioma?

22 A Yes. People were starting to pay real attention to 16:28:0
23 environmental exposures as well as occupational
24 exposures. And when you consider that the
25 occupational exposures involved at least millions

1 of construction workers and mechanics, then you
2 start throwing in the nonoccupational and
3 environmental exposures of anybody that lived near
4 a shipyard or an asbestos plant or went to a
5 hardware store to buy products that contained
6 asbestos, it became obvious that probably the
7 majority of the general population was at risk.

8 Q Are you familiar with the paper in 1967 by Lieben 16:28:3
9 and Pistamka entitled "Mesothelioma and asbestos
10 exposure"?

11 A Yes. 16:28:4

12 Q And that is a series of case reports about people 16:28:4
13 getting mesothelioma from different types of
14 exposure circumstances?

15 A Well, I wouldn't quite call it that. But they were 16:28:5
16 government officials in Pennsylvania and they
17 thought, well, let's take a look and see what we
18 can find out here if we identify cases of
19 mesothelioma and then take a look at what kind of
20 asbestos exposure these people had. And they also
21 documented a number of cases of neighborhood
22 exposure and household contact exposure,
23 neighborhood exposure like a minister whose church
24 was, you know, near an asbestos factory. People
25 like that were among the victims of mesothelioma

1 reported in this study.

2 Q One of the patients they're talking about is a 16:29:3
3 mesothelioma patient, right? Patient 4Q is
4 employed in industrial sales, never had any
5 occupational or asbestos exposure. "Extensive
6 questioning revealed that on two occasions several
7 years before he had applied asbestos insulation to
8 boilers in his home, mixing asbestos cement
9 himself. His total exposure during these
10 applications was only a matter of hours."

11 Was that something that was published in the 16:29:5
12 medical literature and publicly available to any
13 corporation that chose to look for it in 1967?

14 A Yes. 16:30:0

15 Q Would it have been available to Johnson & Johnson, 16:30:0
16 for example?

17 A Sure. 16:30:0

18 Q Now, you mentioned regulation. When did the United 16:30:2
19 States government first start putting regulations
20 in place to try to deal with asbestos exposure,
21 what were the government entities involved in that,
22 and to this day, is there the regulated level of
23 exposure considered to be safe when it comes to
24 cancer?

25 A Well, the regulations were issued by the 16:30:5

1 Environmental Protection Agency, which was created
2 in 1970 and immediately started regulating asbestos
3 in 1971; and by OSHA, the Occupational Safety and
4 Health Administration and the Department of Labor,
5 which opened its doors this April of 1971 and
6 published an emergency temporary standard for
7 asbestos in December of 1971. So it was a high
8 priority for both of these agencies.

9 Also, the Consumer Product Safety Commission 16:31:1
10 was created in 1972, and after receiving a petition
11 to ban asbestos in drywall patching compounds in
12 1976, banned asbestos in those products which had
13 been widely used in the United States and had
14 accounted for about 10,000 tons a year of asbestos
15 being sold to consumers in these products.

16 Q And to this day, is the permissible exposure limit, 16:31:4
17 does OSHA say there's still a risk of cancer from
18 that?

19 A The second part of your question, yes. OSHA -- 16:31:5
20 first of all, the answer is no. What OSHA has to
21 do is -- the standards OSHA publishes have to be
22 technologically feasible, that's what the law says.
23 So that means OSHA has to weigh economics against
24 worker protection in the setting of its
25 exposures -- exposure limits.

1 And so, for example, in the first exposure 16:32:2
2 limit they set, in the first standard they set in
3 1972, they gave industry four years to get the
4 exposures down to a lower level of exposure than
5 the level that would take effect in 1972. That was
6 an obvious manifestation of this effort by OSHA to
7 publish a regulation that would survive a legal
8 challenge on this issue of technological
9 feasibility.

10 But even the current standard, they have 16:32:4
11 acknowledged the exposure limit is -- several
12 people in OSHA have said three people out of a
13 thousand who have a lifetime of exposure are going
14 to get occupational cancer from that level of
15 exposure that they do still permit.

16 Q Has any reputable scientific agency said that 16:33:0
17 there's a level of asbestos exposure that's safe?

18 A No. Many of them have said the opposite, the World 16:33:1
19 Health Organization, the International Agency for
20 Research on Cancer, EPA, OSHA, the National
21 Institute for Occupational Safety and Health in
22 this country.

23 Q Where were you living and working in 1971, 16:33:2
24 Dr. Castleman?

25 A I was living in Baltimore. I was writing my 16:33:3

1 master's thesis. I was reading about the health
2 effects of asbestos.

3 Q Did you have occasion to write to Johnson & Johnson 16:33:4
4 about its talc or its baby powder in the early
5 1970s?

6 A I did. 16:33:5

7 MR. FINCH: Your Honor, at this time we would 16:33:5
8 offer Plaintiffs' Exhibit 306, 308, 295, 296, and
9 317. These are --

10 MR. BICKS: I know. Let me quickly see it. 16:34:0
11 I'm sure it's fine.

12 THE COURT: Also, the Court would like you to 16:34:1
13 repeat the numbers please.

14 MR. FINCH: Sure. 16:34:2

15 THE COURT: And has defendant received those? 16:34:2

16 MR. BICKS: I think so. 16:34:2

17 MR. FINCH: Yes, they were part of the, I 16:34:2
18 believe, stipulated exhibits.

19 MR. BICKS: There's so many exhibits that the 16:34:3
20 numbers are --

21 MR. FINCH: The numbers can be -- 16:34:3

22 THE COURT: So 306. 16:35:3

23 MR. FINCH: 306, 308, 295, 296, and 317. 16:35:3

24 MR. BICKS: No objection. 16:36:2

25 THE COURT: No objection to any of these, all 16:36:2

1 right. And the Court sees that they're all marked,
2 so the Court orders them admitted without
3 objection.

4 MR. FINCH: Thank you, Your Honor. May I 16:36:3
5 proceed?

6 THE COURT: You may. 16:36:3

7 BY MR. FINCH: 16:36:3

8 Q Dr. Castleman, I'm going to put what's been marked 16:36:3
9 as Exhibit 306. Is this a letter in your
10 handwriting in 1971 to Johnson & Johnson?

11 A Yes. 16:36:5

12 Q And what are you writing them about here? 16:36:5

13 A Well, I tell them that I'm a graduate student at 16:36:5
14 Hopkins and I'm writing a literature review that
15 was the subject of my master's thesis on the health
16 effects of asbestos. And I noted a concern about
17 asbestos in talcum powders, and I asked them some
18 questions.

19 Q And did they write you back? 16:37:1

20 A They did. 16:37:2

21 MR. FINCH: This is Exhibit 308, Your Honor. 16:37:2
22 It's a letter on Johnson & Johnson letterhead dated
23 July -- excuse me, August 2, 1971, in response to
24 Dr. Castleman's letter.

25 Q What generally did Johnson & Johnson tell you when 16:37:4

1 you wrote them in 1971?

2 A Well, the most important thing is the beginning of 16:37:4
3 Item 2, "We have no asbestos in our baby powder."
4 And then they proceed to describe some tests that
5 they said they had done to confirm that.

6 Q And is Exhibit 295 another letter you received the 16:38:0
7 following spring from Johnson & Johnson?

8 A Yes. 16:38:1

9 Q What did Johnson & Johnson write to you in the 16:38:1
10 spring of 1972? What did they tell you?

11 A Well, I was continuing to be concerned because I 16:38:2
12 thought the talc itself might also be even capable
13 of causing cancer. But in the course of answering
14 me, I think they said in this letter too that
15 there's no asbestos in their baby powder. I don't
16 see that sentence right offhand.

17 Q Maybe you're thinking about the prior letter. 16:38:4
18 "We have no asbestos in our baby powder."

19 A That was first, but I think there were two letters 16:38:5
20 in which they stated that, and maybe it's one of
21 the others. Because I would write to them from
22 time to time and ask them questions because I was
23 pursuing these questions about talc itself.

24 Q Oh, I see. This comes from me getting old and 16:39:0
25 needing reading glasses.

1 "But to answer your question, Johnson & 16:39:1
2 Johnson takes great care in the formulation and
3 production of all its products. In the case of
4 Johnson's baby powder, the talc comes from our own
5 mines, specifically selected for the quality of
6 their talc. The high grade talc is processed
7 through repeated washings, in order to free it of
8 impurities. Under careful analysis by independent
9 experts, the finished product has been shown to be
10 free of asbestos."

11 Is that what you're thinking of? 16:39:3

12 A Right, it was that last sentence I was trying to 16:39:4
13 recall.

14 Q And did you believe Johnson & Johnson? 16:39:4

15 A Sure. 16:39:4

16 Q This is Exhibit Plaintiffs' 296. This is -- who 16:39:4
17 was Thomas Shelley? Apparently he was someone at
18 Johnson & Johnson?

19 A Right. He was somebody who had written back to me, 16:39:5
20 and so I knew his title as well as his name. And
21 so when I followed up, I sent one of these letters
22 to him.

23 Q What did you write to him? 16:40:0

24 A Well, I noted that I'd been writing to him 16:40:0
25 previously when I was at Hopkins, and I asked him

1 some questions and noted that they'd been kind
2 about sending a nice reply. And I said also that
3 it is apparent that Johnson's talc is free of
4 asbestos. I simply accepted them at their word,
5 what they had told me.

6 Q Did that remain your opinion for many years? 16:40:3

7 A Yes. 16:40:3

8 Q How long did you continue to believe that Johnson's 16:40:3
9 baby powder was asbestos free?

10 A Well, I forget, quite a while longer than that. I 16:40:3
11 really didn't know anything -- I didn't have any
12 reason to question it.

13 Q Within the past several years, have you received 16:40:5
14 some documents that were obtained in discovery from
15 lawsuits against Johnson & Johnson that caused you
16 to maybe question that belief?

17 A Yes. 16:41:0

18 MR. FINCH: Your Honor, at this time we would 16:41:0
19 offer Plaintiffs' 122, 578, and 361 into evidence,
20 which I believe are stipulated as admissible.

21 MR. BICKS: Can I just have an objection, Your 16:41:1
22 Honor, to the -- this testimony on the grounds of
23 nondisclosure and, in fact, kind of a different
24 disclosure than at the deposition. I'm happy to
25 discuss it with you.

1 THE COURT: So you're not objecting to the 16:41:3
2 exhibits, you're objecting --

3 MR. BICKS: I think the exhibits are already 16:41:3
4 stippled in.

5 THE COURT: That's what he said. You're 16:41:3
6 objecting to the questioning?

7 MR. FINCH: Can we take that up at a sidebar, 16:41:4
8 the questioning?

9 THE COURT: Yes. 16:41:4

10 MR. FINCH: So per -- let me get the documents 16:41:4
11 into evidence first. Then we'll approach.

12 Do you have copies of these? They're 122, 16:42:1
13 578, and 361. They were on the list that we
14 stipulated and agreed.

15 MR. BICKS: Yes, I have them. 16:42:1

16 MR. FINCH: May I approach, Your Honor, to 16:42:2
17 hand the clerk?

18 THE COURT: You may. And is this 122, 578, 16:42:2
19 and 361?

20 MR. FINCH: Yes, yes, Your Honor. 16:42:2

21 THE COURT: Which the Court admits without 16:42:2
22 objection, as they've already been stipulated to.
23 Thank you.

24 (A bench conference was held outside the 16:42:4
25 hearing of the jury.)

1 MR. FINCH: I asked Mr. Greene to come up 16:42:4
2 because he was at the deposition. So it's
3 appropriate for him to address this issue.

4 MR. BICKS: I have the -- this is what was 16:42:5
5 said at the deposition when he was asked what he
6 was going to testify about.

7 THE COURT: So is this the only part about the 16:43:4
8 letters?

9 MR. BICKS: My objection is it's fine, he can 16:43:4
10 communicate with his back and forth with Johnson &
11 Johnson. Now they want to start getting into
12 showing him documents from 20 years later, asking
13 to look at internal documents. He's not an expert
14 on talc testing, and he's a state of the art
15 witness. He says this was known. This was
16 knowable. We don't have any problem in him talking
17 about that, but now they're going to get into a
18 couple documents, saying you didn't know about
19 this, this means -- there's indication that there's
20 asbestos in the talc 20 years later. He's not --
21 that's not an expert qualified to talk about that.
22 I can voir dire him right now and show he's not
23 qualified. He doesn't know anything about testing,
24 mineralogy.

25 In fact, he's said that, and he'll say that if 16:44:2

1 I ask. They just want to use him as a mouthpiece
2 to say, oh, look at this document 25 years later,
3 what does this show. He's not qualified to be a
4 mouthpiece for corporate documents, particularly
5 when he says it here, he's not going to do that.

6 THE COURT: So you're objecting that -- on the 16:44:4
7 basis that he's testifying outside his area of
8 competency?

9 MR. BICKS: Exactly. And disclosure here, 16:44:5
10 both, but competency as well. And I can voir dire
11 him and show that.

12 MR. GREENE: Your Honor, with respect to 16:44:5
13 disclosure, these documents were part of his
14 reliance materials, and he talked extensively about
15 them at his deposition. If you want to take a
16 look, he was asked and talked about the fact that
17 he --

18 THE COURT: What page are you on? 16:45:1

19 MR. GREENE: I'm on page 14 of his deposition, 16:45:1
20 Your Honor.

21 THE COURT: I've got 14 here. 16:45:1

22 MR. GREENE: He was asked, "Similarly, do you 16:45:1
23 have any questions about whether Johnson's baby
24 powder contained asbestos?" And he goes on to talk
25 about the fact that he's received documents,

1 they're internal documents, from Johnson & Johnson.
2 He's asked extensively throughout the deposition
3 about those documents.

4 Did you receive them -- one second. 16:45:3

5 With respect to his qualifications, Your 16:45:3
6 Honor --

7 THE COURT: Okay. 14 talks about right here. 16:45:3
8 I can see that, what you just said.

9 MR. GREENE: This is page 14. 16:45:4

10 THE COURT: Okay. 16:45:4

11 MR. GREENE: "It seems to me from looking at 16:45:4
12 all the documentation I've seen, that they were
13 getting positive reports."

14 THE COURT: Right. 16:45:5

15 MR. GREENE: "Johnson and Johnson was getting 16:45:5
16 positive reports," and he goes on to talk about the
17 documents. With respect to disclosure, those are
18 the documents that were provided prior to his
19 deposition.

20 THE COURT: And are those the documents that 16:46:0
21 were just admitted?

22 MR. FINCH: Those were notice to Johnson & 16:46:0
23 Johnson.

24 MR. GREENE: Again, he's not testifying 16:46:0
25 whether those documents are right or wrong. He's

1 THE COURT: No, he's just testifying that 16:46:5
2 there were positive reports.

3 MR. GREENE: And that's -- 16:47:0

4 THE COURT: I mean, I'll permit that because 16:47:0
5 it was in the deposition. But not as to whether --
6 not as to any of the underlying facts concerning
7 the testing.

8 MR. BICKS: That he's testifying about that, 16:47:1
9 we've already -- we already -- it's like redundant.
10 We've already agreed. I already talked about
11 Blount. Blount's testifying. It's just piling on
12 something that they like.

13 MR. GREENE: This is no different than any 16:47:2
14 other document that he's testified about.

15 THE COURT: You can ask him a question as to 16:47:3
16 the response that he received from his letters, but
17 we're not going to get into anything considering
18 the underlying tests.

19 MR. BICKS: Because he's not an expert on it. 16:47:4
20 Then I'll have to cross him for two hours. I can
21 do that.

22 MR. FINCH: Understood. 16:47:4

23 MR. GREENE: Okay. 16:47:4

24 MR. FINCH: Can I ask him the question, are 16:47:5
25 these the same documents that cause him to question

1 whether Johnson & Johnson was telling him the truth
2 40 years ago?

3 MR. BICKS: That's 20 years later. 16:47:5

4 THE COURT: You can ask him about -- 16:48:0

5 MR. FINCH: These are documents that he's 16:48:0
6 received in discovery from --

7 MR. GREENE: That were disclosed as part of 16:48:0
8 his deposition.

9 THE COURT: You can ask him about the 16:48:0
10 responses that he received.

11 MR. BICKS: The letters, right. 16:48:1

12 THE COURT: Right, from the letters. 16:48:1

13 MR. FINCH: But I've already asked him about 16:48:1
14 that. I'm talking about now the documents they
15 didn't give him back then that have become publicly
16 available, does that cause you to question --

17 THE COURT: You mean concerning his own 16:48:2
18 research?

19 MR. GREENE: Yes, Your Honor. 16:48:2

20 MR. BICKS: He corresponded with them in 1972, 16:48:2
21 '73, '74, when he's a graduate student. Now they
22 want to say, oh, we want to show you something that
23 happened 20 years later.

24 THE COURT: Well, it sounds like -- 16:48:4

25 MR. BICKS: What's the relevance of that? 16:48:4

1 THE COURT: It sounds like they want to 16:48:4
2 question him, and correct me, because I want to be
3 right about this, as to his own research. Is that
4 what you're --

5 MR. GREENE: Yes. These are documents that 16:48:5
6 he's received as part of his state of the art
7 research over the course of his career.

8 THE COURT: So how is that outside the scope 16:49:0
9 of his competency?

10 MR. BICKS: Because his competency is not on 16:49:0
11 testing for asbestos and talc. He's already said
12 it.

13 MR. GREENE: Your Honor, if he -- 16:49:0

14 THE COURT: I thought it was a study about 16:49:1
15 asbestos.

16 MR. BICKS: Right. He talked about what's 16:49:1
17 publicly known. Now he wants to say, well,
18 Johnson & Johnson knew this.

19 THE COURT: Well, I think -- 16:49:1

20 MR. GREENE: It goes to Johnson & Johnson's 16:49:1
21 knowledge.

22 THE COURT: Are you asking him about the 16:49:2
23 studies?

24 MR. GREENE: We're asking him about what's -- 16:49:2

25 MR. FINCH: We're asking him about three 16:49:2

1 documents, three internal documents.

2 THE COURT: From Johnson & Johnson? 16:49:2

3 MR. FINCH: Yes, one from 1973, the same time 16:49:3
4 he was corresponding with them, they didn't give
5 him, and then two later documents, one from 1976
6 from Mount Sinai. It was about a meeting between
7 Johnson & Johnson and Mount Sinai. And the third
8 document is a letter from Alice Blount. These are
9 documents that they have never provided.

10 THE COURT: Those are all in the same time 16:49:4
11 frame as the Johnson & Johnson?

12 MR. BICKS: Not the Blount stuff. It was 16:49:5
13 15 years later.

14 THE COURT: All right, not the Blount stuff. 16:49:5
15 Restrict it to the time frame.

16 MR. FINCH: Thank you Your Honor. 16:50:0

17 MR. BICKS: Thank you, Your Honor. 16:50:0

18 (Resumption of live trial proceedings.) 16:50:0

19 THE COURT: You know, I mentioned earlier that 16:50:0
20 we would on occasion have these little sidebars.
21 And again, as I said in the thing, you're not to
22 speculate as to -- you're not to speculate as to
23 the reason for the sidebars either. So we
24 appreciate your understanding.

25 And with that, Counsel, you may continue. 16:50:1

1 MR. FINCH: Just so I'm crystal clear, the 16:50:2
2 three exhibits, Plaintiffs' 122, 578, and 361, are
3 admitted, but I can only question Dr. Castleman
4 about the two -- the one from 1973 and the one from
5 1976?

6 THE COURT: The two that are within the time 16:50:3
7 frame of his correspondence with Johnson & Johnson.

8 MR. FINCH: Okay. 16:50:4

9 BY MR. FINCH: 16:50:4

10 Q Dr. Castleman, you basically correspond with 16:50:4
11 Johnson & Johnson back and forth for several years
12 in the early to mid '70s; right?

13 A Yes. 16:50:4

14 Q I want to show you a document that's been marked 16:50:5
15 P-122 in evidence. And this is a document you
16 received relatively recently in discovery from
17 Johnson & Johnson's files?

18 A Yes. 16:51:0

19 Q Was this document provided to you in the early '70s 16:51:0
20 when you were corresponding with Johnson & Johnson?

21 A No. 16:51:1

22 Q This is an internal memorandum from D.R. Peterson, 16:51:2
23 and it copies W. Ashton and R. Miller. Do you have
24 any understanding as to who these people are?

25 A Ashton's the only one I recognize from my 16:51:4

1 correspondence with them. I don't really know what
2 their job titles were.

3 Q But these were people that worked with or for 16:51:4
4 Johnson & Johnson?

5 A Sure. 16:51:5

6 MR. BICKS: Can I just ask for the foundation, 16:51:5
7 how he knows who worked for Johnson & Johnson and
8 have him explain who these people are, if that's
9 going to be his testimony.

10 MR. FINCH: Sure. 16:52:0

11 THE COURT: The Court will sustain that 16:52:0
12 objection.

13 BY MR. FINCH: 16:52:0

14 Q How do you know who Bill Ashton is? 16:52:0

15 A Well, from his correspondence with me, he indicated 16:52:0
16 that he was a Johnson & Johnson official when he
17 answered me. Otherwise, why would he be the author
18 of those letters?

19 These other guys, this is -- this one document 16:52:1
20 is on the letterhead of Johnson & Johnson. And
21 from the content, it appears to be an internal
22 document of the company describing one of the mines
23 that they got their talc from.

24 MR. BICKS: Again, Your Honor, I would just 16:52:4
25 object on speculation. He corresponded with

1 Ashton, great, but these other people he would be
2 interpreting this. He doesn't have a foundation.

3 MR. FINCH: I'm not asking him to interpret 16:52:5
4 what they thought or what they meant. I'm just
5 asking him --

6 THE COURT: Well, I'll sustain the objection, 16:52:5
7 then. As of yet, there's no foundation.

8 BY MR. FINCH: 16:53:0

9 Q Dr. Castleman, did you review this document in its 16:53:0
10 entirety when you got it?

11 A Yes. 16:53:0

12 Q And what conclusion did you draw from it? 16:53:0

13 MR. BICKS: He's not -- Your Honor, I object 16:53:1
14 to that on foundation and expertise grounds. Can I
15 voir dire him for just a moment?

16 THE COURT: On expertise grounds? 16:53:2

17 MR. BICKS: On expertise grounds. 16:53:2

18 THE COURT: And you want to voir dire as -- 16:53:3

19 MR. BICKS: Yes, on his competence to talk 16:53:3
20 about the topics in these documents.

21 MR. FINCH: Your Honor, I'll -- 16:53:4

22 THE COURT: I don't understand -- okay. So 16:53:4
23 that objection, you're saying that these documents
24 are outside his area of competency?

25 MR. BICKS: And he would say that he's not an 16:53:5

1 expert in testing for talc. So that's my
2 objection.

3 THE COURT: Well, the Court -- are you going 16:53:5
4 to withdraw the question?

5 MR. FINCH: I'm going to withdraw the question 16:54:0
6 and ask a different question.

7 THE COURT: Okay. 16:54:0

8 BY MR. FINCH: 16:54:0

9 Q Dr. Castleman, the author of the document writes, 16:54:0
10 referring to, "Now as for baby powder, the entire
11 thrust of our communication with the FDA has
12 concentrated on asbestos as a harmful fiber-like
13 material."

14 In your communications with the government on 16:54:2
15 asbestos back in 1970s, did you talk about asbestos
16 as a harmful fiber-like material?

17 A Yes. 16:54:3

18 Q The author of the memorandum writes, "These talcs 16:54:3
19 contain widely varying amounts of tremolite or
20 fibrous talc. Our baby powder contains talc
21 fragments classifiable as fiber. Occasionally
22 subtrace quantities of tremolite or actinolite are
23 identifiable optical microscope and these might be
24 classified as asbestos fiber."

25 What do you conclude based on that? 16:55:0

1 MR. BICKS: Your Honor, objection, expertise 16:55:0
2 and speculation.

3 MR. FINCH: I'm not asking for his expertise 16:55:0
4 as a microscopist. I'm just asking for his
5 expertise in reading corporate documents.

6 BY MR. FINCH: 16:55:1

7 Q In your opinion, Doctor, does this put Johnson & 16:55:1
8 Johnson on notice that there's a possibility
9 that --

10 THE COURT: Wait a minute. 16:55:2

11 I'll sustain the objection as to expertise, 16:55:2
12 but you can question him in his area of expertise
13 as an epidemiologist.

14 BY MR. FINCH: 16:55:2

15 Q In your opinion as a public health scientist, would 16:55:3
16 this put a corporation on notice of the possibility
17 of asbestos being in its talc?

18 A Sure. 16:55:3

19 Q Mount Sinai was the institution that Dr. Selikoff 16:55:4
20 was a member of?

21 A Right, the Mount Sinai School of Medicine in 16:55:5
22 New York.

23 Q This March 31, 1976, internal Johnson & Johnson 16:55:5
24 memorandum, did they ever send that to you?

25 A No. 16:56:0

1 MR. BICKS: Again, I would just, Your Honor, 16:56:1
2 object on foundation grounds and the assert -- the
3 implication that there's a responsibility for a
4 company to be sending internal communications to a
5 graduate student in this context. There's no
6 foundation.

7 THE COURT: There's no question before the 16:56:2
8 witness yet. And you're objecting to a document
9 that you stipulated to?

10 MR. BICKS: There was a question, I think. 16:56:3

11 THE COURT: Okay. What's the question? 16:56:3

12 MR. FINCH: I don't remember asking a 16:56:3
13 question, but if there is a question, the question
14 was, have you seen this document recently, Doctor.

15 A Yes. 16:56:4

16 Q And the Mount Sinai group is the group that Irving 16:56:4
17 Selikoff was head of?

18 A Right. 16:56:5

19 Q And this document relates to a meeting between 16:56:5
20 people from Johnson & Johnson and people at Mount
21 Sinai?

22 A Yes. 16:56:5

23 Q And the Mount Sinai group indicated that over the 16:56:5
24 weekend, the Selikoff group had been studying six
25 new samples of talc and reported that all of them

1 contained minimal amounts of asbestos.

2 In your opinion as a public health scientist, 16:57:1
3 would that put a company on notice there was
4 potentially asbestos in talc?

5 A Sure. 16:57:2

6 MR. FINCH: Your Honor, I don't have any 16:57:2
7 further questions.

8 THE COURT: Now, could counsel approach, 16:57:3
9 please.

10 (A bench conference was held outside the 16:57:4
11 hearing of the jury.)

12 THE COURT: We had told the jury that they 16:57:5
13 would be here till 5:30. But I'm assuming cross
14 will take longer than half an hour.

15 MS. WEGLARZ: Yes. 16:58:0

16 THE COURT: So do we want to let them go and 16:58:0
17 begin again in the morning?

18 MR. FINCH: Early in the morning, if we could, 16:58:0
19 Your Honor.

20 MS. WEGLARZ: Maybe that same time. 16:58:0

21 MR. FINCH: 8:30? 16:58:0

22 MR. BICKS: That's fine with me. 16:58:0

23 THE COURT: Okay. Since we are -- tomorrow is 16:58:0
24 Friday.

25 MR. FINCH: Yes. And we're stopping early. 16:58:1

1 THE COURT: Yes, we're stopping at 3:45, so 16:58:1
2 yes.

3 All right. Thank you. 16:58:1

4 (Resumption of live trial proceedings.) 16:58:2

5 THE COURT: So plaintiff has done their direct 16:58:2
6 examination of Dr. Castleman, and now it's
7 defendants' time to do cross-examination, which we
8 had spoken earlier about keeping you until 5:30,
9 but their cross-examination, of course, will take
10 longer than 30 minutes. So we're going to let you
11 go, with the request that you come back again
12 tomorrow morning at 8:30, because we're going to be
13 stopping early tomorrow.

14 So now we have the admonishment, which you'll 16:58:5
15 all have memorized before the trial is over.

16 When you are together in the jury room, during 16:59:0
17 any recess, you may discuss the evidence among
18 yourselves, so long as you reserve your final
19 opinion in this case until you have heard all of
20 the evidence and the case is submitted to you for
21 your decision and verdict.

22 You must not permit anyone other than your 16:59:2
23 fellow jurors to discuss the case with you. And if
24 anyone attempts to discuss the case with you or in
25 your presence, report that fact immediately to the

1 Court's bailiff, and this would include family
2 members when you go home.

3 Furthermore, during any recess or adjournment, 16:59:3
4 you must not talk to any of the attorneys, parties,
5 or witnesses about anything. You should not even
6 pass the time of day with them in the courthouse or
7 elsewhere. And in addition, the Court also has the
8 admonition, no research about any of the parties,
9 products, or people involved in the trial.

10 And with that, you are released and we'll see 17:00:0
11 you again tomorrow morning at 8:30. Thank you very
12 much.

13 (Whereupon, the jury exited the courtroom.) 17:00:1

14 THE COURT: Now, were there some scheduling 17:01:0
15 matters that the parties wanted to discuss before
16 we leave today? No, that's tomorrow. There are
17 other -- I thought I heard Ms. Farinas say there
18 was something.

19 MS. FARINAS: This evening we're going to meet 17:01:1
20 on Mrs. Lewis' deposition. Any matters that we
21 can't resolve in a meet and confer we would like to
22 take up when we close early tomorrow.

23 THE COURT: All right. 17:01:2

24 MR. FINCH: And just for highlight, I've 17:01:2
25 already given them the exhibits, the actual

1 exhibits that we plan to use for Dr. Rigler. We
2 sent you an e-mail.

3 MR. BICKS: Yeah, we got them. 17:01:3

4 MR. FINCH: And I'll get you the slide deck 17:01:3
5 tomorrow morning first thing. It shouldn't be any
6 real --

7 MR. BICKS: Is it the same, modified? 17:01:4

8 MR. FINCH: Basically. Modified. And so if 17:01:4
9 they have any issues, they can take those up after
10 Dr. Castleman's off the stand. It's my
11 anticipation that the direct of Dr. Rigler is an
12 hour and a half to two hours. And they --
13 hopefully they would finish his cross tomorrow
14 afternoon. But if not, Dr. Rigler is available to
15 come -- to stay over the weekend and finish on
16 Monday. We'd obviously prefer not to have to, you
17 know, deal with that.

18 THE COURT: How much time -- well, thank you, 17:02:0
19 Dr. Castleman.

20 THE WITNESS: Thank you. 17:02:1

21 THE COURT: I'm just trying to get a feel for 17:02:1
22 our schedule tomorrow.

23 MR. FINCH: What do you have, an hour and a 17:02:1
24 half cross?

25 MR. BICKS: Probably a little longer than 17:02:2

1 that. I should be able to do it in two, but if
2 he --

3 MR. FINCH: He's --

4 MR. BICKS: I know.

5 THE COURT: And then BMW?

6 MS. WEGLARZ: Does he have opinions, does
7 Rigler have any BMW opinions?

8 MR. FINCH: Oh, I was asking about Castleman,
9 not --

10 MS. WEGLARZ: Castleman, yeah, I'll have --

11 MR. BICKS: I thought you meant Rigler.

12 THE COURT: We're beginning with
13 Dr. Castleman.

14 MS. WEGLARZ: Oh, on Castleman, we're going
15 to --

16 MR. FINCH: No, no, no, Castleman. Let's take
17 them one at a time.

18 MR. BICKS: No, not two hours.

19 THE COURT: I'm trying to get a feel for when
20 to schedule breaks. I like to kind of let the jury
21 know.

22 MS. WEGLARZ: Cross on Castleman.

23 THE COURT: So if we begin at 8:30 --

24 MR. FINCH: We'll be done by 9:30.

25 MR. BICKS: Definitely by 10.

1 MS. WEGLARZ: Yeah, definitely by 10. 17:03:0

2 MR. FINCH: And then we'll probably take a 17:03:1
3 break then. Then put Rigler on. My direct will
4 probably run to the lunch hour. And if -- I'm not
5 going to jam you. If you don't get done, we'll --

6 THE COURT: Do we have anybody besides 17:03:2
7 Dr. Rigler and Dr. Castleman tomorrow?

8 MR. FINCH: No, Your Honor, we don't. We 17:03:2
9 have -- the next order of batting order of stuff,
10 we would have at some point Melody Lewis'
11 deposition, which would need some rulings --
12 possibly need some rulings from Your Honor on.
13 That's what we're meeting and conferring on.

14 There are two depositions related to Johnson & 17:03:4
15 Johnson, one of them is relatively short, that I
16 don't know if we've had a meet and confer yet.
17 We're going to try and meet and confer sooner
18 rather than later on Alice Blount.

19 And then the Hopkins, we've agreed on the 17:03:5
20 transcript. I haven't looked at the page/lines to
21 see if there's any significant disagreement on
22 that.

23 THE COURT: Well, I saw a lot of page and line 17:04:0
24 designations and the objections. Do the parties
25 want a ruling on those tomorrow?

1 MR. FINCH: For which witness? 17:04:1

2 THE COURT: Well, I saw Hopkins, and there was 17:04:1
3 somebody else I just looked at the --

4 MS. FARINAS: Melody's is part of the meet and 17:04:2
5 confer tonight, and we'll bring the issues that we
6 can't resolve to the Court tomorrow afternoon. On
7 Hopkins, I don't know that we've had a -- we just
8 got it last night.

9 THE COURT: There weren't very many as to 17:04:3
10 Dr. Hopkins from Johnson & Johnson. Most of them
11 were Kerr, I think.

12 MS. FARINAS: Well, they're counter 17:04:3
13 designations we haven't looked at to make an
14 objection yet. And given the fact that they're
15 limited -- they're the doctrine of completeness.
16 But there's an agreement in place, so we're working
17 through that.

18 THE COURT: So you don't need anything from 17:04:4
19 the Court?

20 MS. FARINAS: Until tomorrow afternoon, 17:04:5
21 possibly.

22 THE COURT: All right, thanks. 17:04:5

23 MR. HARNEY: The question about going Rigler 17:04:5
24 over to Monday, isn't Dr. Ellenbecker's deposition
25 on Monday?

1 MR. GREENE: It is. 17:05:0

2 MS. WEGLARZ: So let's -- we can talk on the 17:05:0
3 side about this.

4 THE COURT: All right, then. 17:05:0

5 (The proceedings concluded at 5:05 p.m.) 17:05:0

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1 STATE OF INDIANA

2 COUNTY OF HENDRICKS

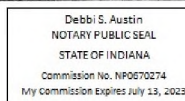
3
4 I, Debbi S. Austin, a Notary Public in and for
5 said county and state, do hereby certify that on the
6 17th day of October, 2019, I took down in stenograph
7 notes the foregoing proceedings in the aforementioned
8 matter;

9 That said proceedings were taken down in
10 stenograph notes and afterwards reduced to typewriting
11 under my direction; and that the typewritten
12 transcript is a true record of the proceedings;

13 I do further certify that I am a disinterested
14 person in this cause of action; that I am not a
15 relative of the attorneys for any of the parties.

16 IN WITNESS WHEREOF, I have hereunto set my
17 hand and affixed my notarial seal this 17th day of
18 October, 2019.

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20 



21
22
23 My Commission Expires:
24 July 13, 2023
25

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In the Matter Of:

MELODY LEWIS and ROBERT LEWIS

-v-

BMW CONSTRUCTORS, INC., ET AL.

Trial Day 4

October 18, 2019

1 STATE OF INDIANA)
2 COUNTY OF MARION) SS:

3
4 IN THE MARION COUNTY SUPERIOR COURT
CIVIL DIVISION, ROOM NO. 12

5 MELODY LEWIS and)
6 ROBERT LEWIS,)
7 Plaintiffs,)

8 -v-

) CAUSE NO.
) 49D12-1811-MI-045368

9 BMW CONSTRUCTORS, INC.,)
10 et al.,)
11 Defendants.)

12
13
14 TRANSCRIPT OF TRIAL PROCEEDINGS

15 DAY 4

16 OCTOBER 18, 2019

17 BEFORE THE HONORABLE THERESE A. HANNAH
18
19
20
21

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1 THE BAILIFF: All rise.

2 (Whereupon, the jury entered the courtroom.) 08:28

3 THE COURT: Well, good morning and welcome 08:29

4 back. Please be seated.

5 Well, I hope everybody had a restful night, 08:29

6 and we are ready for another day of trial.

7 Your oath that I gave you as jurors, continues 08:29

8 from day to day until we conclude this case. So

9 there's no need for the Court to swear you in again

10 every day.

11 And with that, we'll begin. 08:29

12 MR. BICKS: Thank you. Good morning, 08:29

13 everyone.

14 JURORS: Good morning. 08:29

15 BARRY CASTLEMAN, Ph.D.,

16 a witness resumed the stand on behalf of the

17 Plaintiffs, having been previously duly sworn by the

18 Court, took the stand and testified as follows:

19 CROSS-EXAMINATION (CONTINUING) 08:29

20 BY MR. BICKS: 08:29

21 Q Good morning, Dr. Castleman. 08:29

22 A Good morning. 08:29

23 Q My name is Peter Bicks. How are you, sir? 08:29

24 A Fine, thank you. Excellent. 08:29

25 Q And thank you for being with us. I'd like to start 08:29

1 with just a little bit on your qualifications.

2 Fair to say that you are not an expert on what 08:29
3 I would call mineralogy?

4 A That's correct. 08:29

5 Q And is it fair to say that you are not a geologist? 08:29

6 A That's correct. 08:29

7 Q Is it fair to say that you don't have particular 08:29
8 expertise in the source mines from which Johnson &
9 Johnson got any of its talc?

10 A That's correct. 08:30

11 Q And are you familiar with the phrase material 08:30
12 scientist?

13 A Yes. 08:30

14 Q I assume you do not consider yourself a material 08:30
15 scientist.

16 A No. 08:30

17 Q Have you yourself actually tested any talc to 08:30
18 determine its purity?

19 A No. 08:30

20 Q Do you hold yourself out in front of our jury as an 08:30
21 expert in transmission electron microscopy?

22 A No. 08:30

23 Q What about x-ray diffraction? 08:30

24 A No. 08:30

25 Q Have you personally ever used an electron 08:30

1 microscope yourself?

2 A No, sir.

3 Q It's also the case, you're not a certified
4 industrial hygienist; right?

5 A I have training in industrial hygiene, but I'm not
6 a certified industrial hygienist.

7 Q Right. And you're not a medical doctor; right?

8 A No.

9 Q I think I've looked at a lot of your testimony, and
10 I've heard you say that you're not an expert in
11 mesothelioma in general; is that accurate?

12 A Well, it's -- I don't recall what you're referring
13 to, but I'm not a medical doctor. Mesothelioma is
14 clearly something that we use as a marker for
15 indicating the dangers of asbestos in public
16 health. So it's just a matter of context, I
17 suppose, what question that would be.

18 Q Well, I'm happy to pull it up, but you were asked,
19 are you an expert in mesothelioma in general, and
20 you said you were not. I'm happy to bring the
21 testimony up if you --

22 A It's such a vague question, if I said that in the
23 context of some deposition.

24 Q Do you know, by the way, where Johnson & Johnson
25 sourced its talc from?

1 A I read, I think, Vermont and Val Chisone in Italy. 08:31

2 Q I'm glad you mentioned Val Chisone in Italy 08:32

3 because, did you mention to the jury yesterday that
4 you had actually visited the deposit in Val Chisone
5 Italy?

6 A Well, it's a museum now, but the mine still exists 08:32

7 as a place that tourists can come and see a talc
8 mine. But, yes, I've been there.

9 Q And you a visited that mine in about 2015? 08:32

10 A It was a few years ago, yes. 08:32

11 Q Did you tour the mine? 08:32

12 A Yes. 08:32

13 Q And you were able to walk around and see where the 08:32
14 talc came from.

15 A Yes. 08:32

16 Q Who took you around the mine? 08:32

17 A Oh, I don't recall the people that were there. I 08:32

18 was just coming as a tourist. I didn't have any
19 special, you know, hosting arrangement by the mine
20 management or anything like that.

21 Q Well, it would be -- the year was 2015. Had you 08:32

22 been hired by any plaintiffs' law firm as of that
23 time to testify in any case involving talc?

24 A Well, I had done talc cases, not Johnson & Johnson, 08:33

25 but other companies' talc cases, before 2015.

1 Q Right. So at the time that you were at that 08:33
2 Italian mine, you were retained by plaintiffs in
3 cases involving talc; right?

4 A Well, plaintiffs weren't paying me to take a tour 08:33
5 of the mine. I just happened to be in northern
6 Italy and decided to see the mine. I didn't get
7 paid for that.

8 Q Yes, I didn't ask you whether or not you got paid, 08:33
9 sir, please. My question to you was, at the time
10 you visited that mine, you were retained by
11 plaintiffs in lawsuits against companies that sold
12 talc products; right?

13 A Well, there had been a few lawsuits that I had 08:33
14 testified in by that time, yes.

15 Q And is it the case that you've told this jury that 08:33
16 you have been involved with asbestos issues since
17 the early 1970s; fair?

18 A Right. 08:33

19 Q So we're talking, what, almost 50 years? 50 years; 08:33
20 right?

21 A Well, not quite, but almost. 08:34

22 Q And you've held yourself out to this jury and 08:34
23 you've talked about all the knowledge about
24 asbestos hazards; right?

25 A Well, briefly we highlighted it, yes. 08:34

1 Q So my question to you is: With all of your 08:34
2 knowledge and expertise, when you were at that
3 Italian talc mine touring in the mine, seeing where
4 all the talc was, were you wearing a protective
5 breathing apparatus of any sort?

6 A No. It wasn't an active mine. 08:34

7 Q But you were right next to all the talc; right? 08:34

8 A Well, I was walking through the abandoned mine site 08:34
9 to look at the way it was set up, yes. It's a
10 museum now, not an active mine.

11 Q But the talc is right there? You were right up 08:34
12 next to the talc itself; right?

13 A I suppose in some places, yes. 08:34

14 Q Right. And I've looked at your prior testimony. 08:34
15 You said that you didn't consider yourself in any
16 danger when you were on the site at that mine
17 walking around that talc. Is that still true
18 today?

19 A Right. 08:35

20 Q Now, you've also testified before that -- do you 08:35
21 have some familiarity with the published literature
22 and the epidemiology of the Italian talc miners?

23 A Well, I've seen one article, I think, published 08:35
24 about that, about the -- some of the workers at the
25 Italian mine by Rubino.

1 Q Have you -- I don't want to get into areas that 08:35
2 you're not familiar with, but have you looked at
3 all the epidemiology about the talc miners and
4 millers in Italy?

5 A Not all of them, no. 08:35

6 Q Are you saying the only article you're familiar 08:35
7 with is the Rubino article?

8 A Well, that's the only one that comes to mind. 08:35

9 Q Right. And you've testified before, and I want to 08:35
10 make sure it's true, that you're not aware of any
11 articles showing that that talc mine in Val Chisone
12 contains asbestos. Is that still your testimony
13 today?

14 A Yes. 08:36

15 Q Now, you talked a little bit about your book that 08:36
16 was called "Asbestos: The Medical and Legal
17 Aspects"; right?

18 A Right. 08:36

19 Q And I'm a good customer of yours, I've got five, 08:36
20 all five editions. I hope you're pleased with
21 that.

22 A Well, lots of defense lawyers buy the book, yes. 08:36

23 Q I wanted to just do something basic, which is the 08:36
24 title of the book is Asbestos Medical and Legal
25 Aspects; right?

1 A Right. 08:36

2 Q And did you come up with the title? 08:36

3 A I think so. 08:36

4 Q And to be clear, medical, you are not a medical 08:36
5 doctor; true?

6 A True. 08:36

7 Q And legal, you are not a lawyer; right? 08:36

8 A Right. Medicine and law are the foundations of 08:36
9 public health.

10 Q Sir, please, the question, are you a lawyer? 08:36

11 A No, sir. 08:36

12 Q I looked through all five of these books, and I 08:37
13 cannot say that I read all of them, but I was
14 looking very carefully to see if there was a
15 chapter on Johnson & Johnson, and I didn't see one.
16 Is there a chapter in any of these books about
17 Johnson & Johnson?

18 A No. 08:37

19 Q Is there any discussion in any of these books about 08:37
20 Johnson & Johnson and its talc?

21 A No. 08:37

22 Q Some of the companies that are discussed in here, 08:37
23 is it fair to say that the companies that you're
24 focusing on here are companies that made
25 asbestos-containing products, like insulation and

1 thermal blocks and tape joint compound and
2 companies of that nature?

3 A Well, it also includes large users of asbestos 08:37
4 products like the big oil companies, big automobile
5 companies.

6 Q And companies that put asbestos into their 08:38
7 products, is that one category that you focused on?

8 A Yes. 08:38

9 Q And companies that actually had asbestos mines; 08:38
10 right?

11 A Right. 08:38

12 Q And you know Johnson & Johnson doesn't fit into any 08:38
13 of those categories, right, at least from what you
14 know?

15 A Right. 08:38

16 Q Now, I want to ask you about the cover of this 08:38
17 book. I know you've been asked about it before.
18 Maybe we can put it up, but I think you've seen
19 this.

20 MR. BICKS: May I approach, Your Honor? 08:38

21 THE COURT: Yes. 08:38

22 Q This was the foreword to your book; right? 08:39

23 A Well, this is the dust cover on the first edition 08:39
24 of the book.

25 MR. BICKS: Right. So I'd like to offer this 08:39

1 into evidence, Your Honor.

2 MR. FINCH: No objection.

3 THE COURT: All right. The Court shows it
4 admitted. Is this Exhibit Defendants' 11001-08?

5 MR. BICKS: And maybe we can go to the ELMO.
6 Can folks see that on our jury?

7 JURORS: (Affirmative nod.)

8 BY MR. BICKS:

9 Q Great. So this was the foreword to the first
10 edition of your book; right, Dr. Castleman?

11 A No, this was the dust cover that the publisher put
12 on the book and the language that the publisher
13 chose to use.

14 Q Right. I'm sorry, the dust cover, so that's kind
15 of the thing on the outside of the book?

16 A Right.

17 Q And this was your first edition; is that right?

18 A That's right.

19 Q It says in it, "To attorneys in asbestos
20 litigation, this book offers a complete
21 documentation on the development of knowledge about
22 asbestos hazards. There's an abundance of valuable
23 material for the plaintiff and the attorney
24 preparing his case as well as information on how to
25 deal with defense arguments."

1 Did I get that right? 08:40

2 A You read that correctly. 08:40

3 Q So this was on the dust cover of the first edition 08:40
4 of your book; right?

5 A It was. 08:40

6 Q And you've told us that, I think you said that you 08:40
7 objected to this?

8 A Well, when asked about this in court, I've said 08:40
9 that I told the publisher that this was a doctoral
10 thesis accepted by one of the most respected
11 schools of public health in the world, and their
12 characterization of the book was, I thought, unfair
13 and that I'd probably be hearing this for the rest
14 of my life, and that was 35 years ago. And so far,
15 my prediction has proven correct. But in any case,
16 they stopped using that particular language on the
17 dust cover after the first edition.

18 Q Right. But just so our jury's -- it was on the 08:41
19 cover of the -- the dust cover of the first
20 edition; right?

21 A Right. 08:41

22 Q And then you came into court and you were asked 08:41
23 questions about it, and then in the second edition,
24 it wasn't there; right?

25 A Well, they made it more balanced in a way that they 08:41

1 described the book, yes.

2 Q Right. But you first got involved in litigation 08:41
3 about when, sir?

4 A Well, it started as a research job in 1976, about 08:41
5 five years after I had written my master's thesis
6 on asbestos.

7 Q And I have a timeline here, if we can bring up C-4, 08:41
8 maybe it'll help us walk through this. Can you see
9 that, Mr. Castleman?

10 A Yes. 08:42

11 Q So to orient us, 1973, you've got "Asbestos and 08:42
12 You," which is a publication you wrote; right?

13 A Right. 08:42

14 Q Then in 1976, you start consulting for plaintiffs' 08:42
15 lawyers; right?

16 A Right. I was an independent consultant by then, 08:42
17 and they hired me to do research on the published
18 literature, and I went to libraries to look up
19 different articles.

20 Q And you first started testifying in, what, 1979? 08:42

21 A That's right. 08:42

22 Q So 2019, you've been testifying for essentially 08:42
23 40 years; is that fair?

24 A That's right. 08:42

25 Q Fair to say that you've testified in, what, over 08:42

1 400 trials?

2 A Yes. It averages to probably a little less than 08:42
3 once a month.

4 Q And you've given, what, about a thousand 08:42
5 depositions?

6 A Yeah. 08:42

7 Q I've read in your prior testimony that 99.9 percent 08:43
8 of the time that you testify, you do so on behalf
9 of plaintiffs; is that accurate?

10 A Plaintiffs list me as a witness. Defendants 08:43
11 occasionally have asked me to and I've allowed that
12 in some cases. But generally I appear as a witness
13 for the plaintiffs. I testified as a defense in
14 one case.

15 Q One case out of 400; is that right? 08:43

16 A In trial, yes. 08:43

17 Q And that case was actually a case where you were 08:43
18 retained by the government and an asbestos company
19 was on the other side; is that fair?

20 A Right. The asbestos company had sued the 08:43
21 government and the Justice Department hired me as a
22 witness to represent them.

23 Q Just so we're clear, is it true that 99 percent of 08:43
24 the time that you come into the courtroom to
25 testify, it's been at the request of plaintiffs'

1 lawyers?

2 A Yes.

3 Q And is it also true that when we look at your
4 income, that over 90 percent of your income comes
5 from testifying for plaintiffs in cases involving
6 asbestos?

7 A Well, it certainly does now. Most of the
8 international work I do pays little or nothing.

9 Q Well, can you give us a sense of how much money you
10 think you've been paid over the last 40 years for
11 testifying for plaintiffs?

12 A I really don't know what that total would be.

13 Q Well, let me -- I put up here C2, which is an
14 exhibit that I've put together based on some of
15 your prior testimony.

16 Do you see that?

17 A Yes.

18 Q I went through your testimony. You started
19 testifying in 1979, but I started in 1980. And
20 you've testified that you made about \$40,000 a
21 year; fair?

22 A That sounds high for 1980, but I really don't
23 remember.

24 Q Well, I'm reading what you said in the Fusco case
25 in 2013. I'm happy to show you that you said about

1 40,000 a year. Is that in the ballpark?

2 A I really don't know. I'm surprised if I could have 08:45
3 remembered that in 2013, what I had made back in
4 1980.

5 Q All right. I have up here from your prior 08:45
6 testimony that starting in 1985 you got paid about
7 a hundred thousand dollars a year. Does that sound
8 right?

9 A I think so. 08:45

10 Q And then what I couldn't figure out, because I 08:45
11 really wanted to come to a total and I don't want
12 to take too much time here, but I added this up and
13 figured it out, it was about a little over
14 \$6 million. But the area that I had trouble with
15 is the period between '85 and 2007, because that's
16 a 22-year period of time. And in my calculation, I
17 assumed you made a hundred thousand all the way up
18 to 2007, but chances are, are you probably were
19 getting paid more than that over that time period,
20 kind of gradually getting higher?

21 A Certainly it would have been more than a hundred 08:46
22 thousand many of those years, yes.

23 Q So if we added this up, and I'm not going to do it 08:46
24 here, but it wouldn't -- you wouldn't quibble if it
25 exceeds \$6 million, would you?

1 A I really never added it up. 08:46

2 Q Now, one of the other things that happens is that 08:46
3 plaintiffs' lawyers list you in cases that are
4 around the country. They put you on what lawyers
5 know as a witness list for experts; right?

6 A Right. 08:46

7 Q Do you charge just for having your name put down on 08:46
8 a witness list?

9 A Only the first time I encounter a law firm. After 08:46
10 that, they can list cases for years and years and
11 there's no charge for it.

12 Q So how much do you charge just to have your name 08:46
13 listed on a case?

14 A Well, the first time I encounter a firm, I used to 08:46
15 charge \$500, and now it's a thousand dollars.

16 Q The firm that has retained you in this case, what 08:47
17 firm is that?

18 A This is the Motley Rice firm I think it's called 08:47
19 today.

20 Q How long have you worked with the Motley Rice firm 08:47
21 over your career?

22 A Well, I met Ron Motley in 1977, I think. 08:47

23 Q So give us a ballpark. How many cases do you think 08:47
24 you've worked with for the Motley Rice firm?

25 A Well, Mr. Motley, I don't recall him ever using me 08:47

1 as an expert witness. He hired me to do research.
2 I don't have any idea how many cases. At some
3 point, I think, in the 1980s, other lawyers in the
4 firm -- maybe it was 1990s or the late '80s --
5 started to use me as an expert witness on some of
6 their cases.

7 Q Fair to say that you've been paid a fair amount of 08:47
8 money by that firm?

9 A Well, I don't know what you mean by a fair amount 08:48
10 of money. We're making a legal record here.

11 Q I can't hear what you said, sir. 08:48

12 A I don't know what you mean by the term fair amount 08:48
13 of money. We're making a legal record here.

14 Q Right. 08:48

15 A I have no idea what the total would be. 08:48

16 Q Well, we totaled up the amount you've been paid, 08:48
17 say, over 6 million. I'm just trying to get a
18 sense of how much of that is from the firm that
19 you're appearing here for today. Can you tell us
20 that?

21 A Probably less than 1 percent, but I really don't 08:48
22 know.

23 Q Now, you talked about -- and can we go back to that 08:48
24 timeline, please -- that your first book comes out
25 in 1984; right?

1 A Right. 08:48

2 Q And then your Ph.D. was in what year, sir? 08:48

3 A A few months later in 1985. 08:48

4 Q So I went back and looked at some of your 08:49

5 testimony, and you were asked kind of what prompted

6 you to get that Ph.D. and whether you were

7 encouraged by plaintiffs' lawyers to get that Ph.D.

8 so it enhanced your ability to come testify in

9 court.

10 Do you remember being asked about that topic? 08:49

11 A Well, lawyers ask me about that topic when I'm 08:49

12 cross-examined with some regularity, yes.

13 Q And is it true that you were encouraged by lawyers 08:49

14 who hired you to testify to go get a Ph.D. because

15 it would enhance your ability to come talk to a

16 jury because you could say, I've got a Ph.D.?

17 A Well, when I told lawyers I was going back to 08:49

18 school, they certainly said, good for you.

19 Q You said before that you thought courts and juries 08:49

20 are more impressed with credentials, and so the

21 lawyers obviously understood that it would be

22 easier for me to present opinion testimony if I had

23 a Ph.D.

24 Have you said that before? 08:50

25 A Probably. It was an observation that courts, in 08:50

1 allowing me to render opinions, were mindful of
2 what my qualifications were in allowing what types
3 of opinions I would be able to give in trial. It
4 was simply an observation that I had made from
5 being in the courtroom.

6 Q That people would hear you and have you -- hear 08:50
7 about your Ph.D. and it would kind of enhance your
8 testimony; right?

9 A Well, I was thinking of it more in the context of 08:50
10 what the judges would let me say in terms of the
11 way I could answer questions and that judges would
12 allow greater latitude if I came in and said I
13 wrote my doctoral thesis at the Johns Hopkins
14 School of Public Health about the subject of the
15 testimony.

16 Q And your doctoral thesis didn't contain anything 08:51
17 about Johnson & Johnson; right?

18 A No. 08:51

19 Q So let me ask you about your communications with 08:51
20 Johnson & Johnson. You were asked about that,
21 remember, on direct yesterday?

22 A Yes. 08:51

23 Q You were shown your handwritten letter where you 08:51
24 had asked for certain information.

25 Do you remember that? 08:51

1 A Right. 08:51

2 MR. BICKS: Can we bring up -- it's 08:51
3 Plaintiffs' Exhibit 306.

4 Q And this is your handwritten note; right? Do you 08:51
5 see that?

6 A Yes. 08:51

7 Q You asked the question of Johnson & Johnson, "Do 08:51
8 all talcum powders contain asbestos?"

9 And this was something that you were focused 08:51
10 on; right?

11 A Yes, it was. 08:51

12 Q I'm just curious, when you wrote this, it's in July 08:51
13 of 1971. How old were you?

14 A Twenty-four. 08:52

15 Q You addressed it -- if we could just pull back from 08:52
16 the document, it's not addressed to anybody in
17 particular at Johnson & Johnson; right?

18 A Right. 08:52

19 Q Did Johnson & Johnson promptly respond to you? 08:52

20 A Yes. 08:52

21 Q This is Exhibit 293. You received a response -- 08:52
22 you wrote on July 25th, and you received a
23 response on what day?

24 A August 2, same year. 08:52

25 Q So is it fair to say that Johnson & Johnson got 08:52

1 back to you promptly?

2 A Yes.

3 Q And the letter was signed by who -- a Ph.D. who was
4 the director of Central Research Laboratories,
5 Thomas H. Shelley; right?

6 A Right.

7 Q In this letter, he tells you about specific
8 mineralogists and others who had worked with
9 Johnson & Johnson in paragraph 2.

10 You see that?

11 A Yes.

12 Q He tells you about work carried out by
13 mineralogists at the Colorado School of Mines?

14 A Yes.

15 Q In your research, did you become familiar with the
16 reputation of the Colorado School of Mines?

17 A No. I mean, I couldn't really say what the
18 reputation of the school -- Colorado School of
19 Mines is.

20 Q But let me ask you, I guess, the question, as a
21 general rule based on your expertise, do you think
22 it's a good thing for a company to do to hire top
23 outside experts if they want to get answers to
24 important questions?

25 A That's a good thing, yes.

1 Q So you didn't do any research, I gather, on the 08:53
2 Colorado School of Mines?

3 A No. 08:53

4 Q What about McCrone Laboratories in Chicago, have 08:53
5 you ever heard of Walter and Lucy McCrone in any?

6 A I have heard of McCrone Laboratories in my work, 08:53
7 yes.

8 Q Do you know who Walter McCrone is? 08:53

9 A Well, I gather he's the head of that lab. 08:53

10 Q Do you know anything about Lucy McCrone? 08:53

11 A No. 08:53

12 Q She's one of the first female microscopists in the 08:53
13 world. Did you know that?

14 A No. 08:54

15 Q Did you know of the reputation of Walter McCrone 08:54
16 and his company when it comes to microscopy?

17 A No. I mean, they're just a lab I had heard of. 08:54

18 Q You didn't do any research into their reputation? 08:54

19 A No. 08:54

20 Q Were you aware that Walter McCrone himself, in any 08:54
21 of your research, did you see his involvement in
22 determining whether or not the Shroud of Turin that
23 Jesus was buried in was real; do you know anything
24 about that?

25 A No, I don't. 08:54

1 Q What about work that he had done when it came to 08:54
2 whether or not someone wanted to identify whether
3 hair of Beethoven's was his; do you know anything
4 about that?

5 A No. 08:54

6 Q What about Fred Pooley and the University of Wales 08:54
7 in Cardiff, do you know anything about them?

8 A I had heard of Pooley in other work I had done. 08:54

9 Q How had you come across Professor Pooley? 08:54

10 A I really don't recall. Some kind of -- in the 08:55
11 microscopic analysis he had done.

12 Q You mentioned somebody named -- people say -- 08:55
13 pronounce it Wagner, right, in your direct
14 yesterday?

15 A Yes. 08:55

16 Q He was one of the original researchers on finding 08:55
17 mesothelioma; right?

18 A Right. He was the author of the report in 1960 of 08:55
19 33 case of mesothelioma, 32 of which had a history
20 of asbestos exposure.

21 Q Right. That was crocidolite over in Africa? 08:55

22 A Not all of it, but most of it was from that 08:55
23 particular type of asbestos.

24 Q So my question is, did you read or familiarize 08:55
25 yourself with the article that Mr. Wagner and

1 Professor Pooley wrote on Italian talc? Are you
2 familiar at all with that?

3 A I don't recall that. 08:55

4 Q Would you say in your research that somebody like 08:55
5 Mr. Wagner is one of the most well-respected
6 scientists when it comes to asbestos issues?

7 A Well, he was up until the time he died. And it 08:56
8 came out that he had been retained by a company in
9 asbestos litigation in a way that he never
10 disclosed. And that tended to explain some of the
11 things that he wrote in his later years.

12 Q I see. Did you mention that yesterday on your 08:56
13 direct? I didn't know that I heard that.

14 A Well, I wasn't asked about it. 08:56

15 Q Understood. So I want to ask you about -- remember 08:56
16 yesterday you were asked about this meeting, you
17 were shown a document, and we'll pull it up. It's
18 Plaintiffs' Exhibit 578. This was a March 31, 1976
19 document. Remember you were asked about this?

20 A Yes. 08:57

21 Q Now, I think it's obvious, but let's make sure we 08:57
22 clear it up. You were not at this meeting; right?

23 A I was not. 08:57

24 Q You've told our jury that Mount Sinai Hospital is 08:57
25 one of the most respected hospitals when it comes

1 to asbestos issues; right?

2 A Yes.

3 Q When it comes to Dr. Selikoff, I've looked at some
4 of your testimony and writings, and you've
5 described him as a luminary; right?

6 A He was a renowned figure in the field of
7 occupational and environmental health.

8 Q And I think you would agree, because I think you've
9 said it before, that if a company had questions
10 about testing of talc, that Dr. Selikoff and people
11 at Mount Sinai would be good people to go talk to;
12 right?

13 A Right.

14 Q Because they were some of the leading experts in
15 the field; right?

16 A Right.

17 Q And you were asked about this memo.

18 MR. BICKS: And if we can scroll down a little
19 bit on it, Jim.

20 Q And the statement there says that -- it starts that
21 paragraph, "The Mount Sinai group indicated that
22 over the weekend, the Selikoff group had been
23 studying six new samples of talc and had reported
24 that all of them contained minimal amounts of
25 asbestos."

1 Do you see that? 08:58

2 A Yes. 08:58

3 Q Do you know what six samples are being discussed in 08:58
4 this memo?

5 A No. 08:58

6 Q Do you know if they have anything to do with 08:58
7 Johnson & Johnson?

8 A No. 08:58

9 Q If you go on and read other parts of this memo, and 08:58
10 you go down to the next paragraph, it says that,
11 "It was pointed out to the Mount Sinai management
12 that the Selikoff group had published in the papers
13 about the presence of talc in 1971 and had been
14 forced to retract their statement, as it was
15 erroneous."

16 Do you see that? 08:59

17 A I see that -- I see the statement you're talking 08:59
18 about.

19 Q Are you an expert in the factual back and forth of 08:59
20 what happened in 1971 and 1972 in terms of testing
21 for asbestos and talc?

22 A All I can say is I've never heard of people at 08:59
23 Mount Sinai retracting anything they've published
24 about asbestos and talc in 1971, so I don't know if
25 the statement in this Johnson & Johnson memo is

1 correct.

2 Q So you haven't studied to see what Mount Sinai 08:59
3 actually said in public about the testing that was
4 done?

5 A All I can say is I've never seen any such 08:59
6 retraction from Mount Sinai.

7 Q Well, let me ask you this as a general proposition 08:59
8 for someone with your experience: Do you think
9 it's a good idea to make scientific statements that
10 are inaccurate?

11 A No. 09:00

12 Q Do you think it's a good idea if an inaccurate 09:00
13 scientific statement has been made to correct it?

14 A Sure. 09:00

15 Q Are you familiar with the statement that Mount 09:00
16 Sinai made after this meeting to the public?

17 A You mean the one in 1971 or the one in 1976? 09:00

18 Q Well, you testified about this document. Let's go 09:00
19 back and help you. This is in 1976.

20 A All right. 09:00

21 Q Are you familiar with the statement that Mount 09:00
22 Sinai made shortly after this March 22, 1976,
23 meeting?

24 A I think there was some statement issued, not by 09:00
25 Selikoff, but by the upper management of the Mount

1 Sinai institution, but I don't recall the details.

2 Q Would that public statement be something that is 09:00
3 known and knowable to Johnson & Johnson?

4 A Well, I suppose so if they made some public 09:01
5 statement.

6 Q But I take it, though, that you have not seen that 09:01
7 public statement, or you have?

8 A I don't recall if I have. Like I said, I have a 09:01
9 vague recollection of there being some pressure on
10 Mount Sinai to issue some sort of public statement.

11 Q Yeah. 09:01

12 A And just exactly what they said, I don't recall the 09:01
13 details.

14 Q But, I mean, one thing that you do is you go out 09:01
15 and research what is out there, what's known and
16 knowable; right? Isn't that one of the things that
17 you do as a researcher?

18 A Yeah. 09:01

19 Q But I take it, though, you haven't gone out and 09:01
20 researched what Mount Sinai was saying publicly
21 about the safety of Johnson & Johnson's talc.

22 A Well, there are a number of things that Johnson -- 09:01
23 that Mount Sinai said about Johnson & Johnson talc,
24 not all of which are consistent to each other.

25 Q Well, let's look at Defendants' Exhibit 7119 and 09:01

1 see actually what Mount Sinai said.

2 And so our jury is clear, there's no question 09:02
3 in your mind --

4 THE COURT: Has this been stipulated to? 09:02

5 MR. BICKS: I think this is stipulated. 09:02

6 MR. FINCH: It's stipulated. 09:02

7 THE COURT: Thank you. 09:02

8 MR. BICKS: And here's a copy. And if we 09:02
9 could publish this. Thank you, Jim.

10 BY MR. BICKS: 09:02

11 Q Have you seen this before, Dr. Castleman? 09:02

12 A I think so. 09:02

13 Q If we can just -- this is a statement. Do you 09:02
14 know, by the way, who Dr. Thomas C. Chalmers is and
15 what his background was?

16 A No, I just see he's listed as president of the 09:02
17 Mount Sinai Medical Center.

18 Q This starts out, it says, "Recent media reports 09:02
19 concerning research on talcum powder carried out by
20 the Mount Sinai Medical Center created considerable
21 confusion on the part of the public." Right?

22 A That's what it says. 09:03

23 Q Would you agree that confusion on the part of the 09:03
24 public is not a good thing and that clarifying that
25 confusion is a good thing?

1 A Yes. 09:03

2 MR. BICKS: If we go to page 2, please, Jim. 09:03

3 Q This is what I was asking you about, which was the 09:03
4 opinion of Mount Sinai about the safety of baby
5 powder. Are you with me on that? You see --

6 MR. BICKS: Jim, can we please highlight the 09:03
7 medical center has issued a following statement,
8 the most commonly used baby powder. Do you see
9 this? And can we go down to No. 2, please.

10 Q Are you with me on this, Dr. Castleman? 09:03

11 A Yes. 09:04

12 Q "The most commonly used baby talc has been 09:04
13 consistently free of asbestos."

14 Do you see that statement? 09:04

15 A Yes, I do. 09:04

16 Q Did you mention that to this jury when you gave 09:04
17 your direct testimony?

18 A No. 09:04

19 Q You would agree with me that Mount Sinai Hospital 09:04
20 is -- can you think of any hospital more respected
21 when it comes to asbestos issues than Mount Sinai,
22 particularly at this time?

23 A No. 09:04

24 Q Mount Sinai also says here -- and to be clear, the 09:04
25 most commonly used baby talc is -- who makes the

1 most commonly used baby talc?

2 A I would assume that was Johnson & Johnson.

09:04

3 Q The opinion of Mount Sinai's department of
4 pediatrics is that the baby talc is a useful and
5 safe product; you see that?

09:04

6 A Yeah.

09:04

7 Q You've told us before about Dr. Selikoff, and you
8 talked a lot about him on your direct; right?

09:04

9 A Yes.

09:05

10 Q Is it fair to say that he had his differences with
11 certain kind of companies and sometimes could be at
12 odds with them; right?

09:05

13 A Well, he published things that companies were
14 sometimes critical of, yeah.

09:05

15 Q Right. And, I mean, you dealt with him yourself
16 personally; right?

09:05

17 A Yeah.

09:05

18 Q Is it fair to say that he's not the kind of guy who
19 gets pushed around easily, right, he held his
20 ground if he believed in something?

09:05

21 A Yes.

09:05

22 Q Do you know and were you shown his -- do you know
23 whether or not he agreed with this statement, I
24 guess is one question I had for you?

09:05

25 A I haven't seen anything that was committed to

09:05

1 writing to the effect that he disagreed with this,
2 I suppose. There were certainly things that people
3 on his staff disagreed with, I think this
4 particular -- this particular sentence.

5 Q Right. Do you know that Dr. Selikoff actually put 09:06
6 in writing that he agreed with Dr. Chalmers'
7 statement; have you ever seen that?

8 A I don't recall. 09:06

9 Q Would that be something that, given your knowledge 09:06
10 about Dr. Selikoff, that you would want to know
11 about?

12 A Sure. Let's look at it. 09:06

13 MR. BICKS: This is 8846. We'd move it into 09:06
14 evidence.

15 MR. FINCH: No objection. 09:06

16 THE COURT: The Court shows 8846 admitted 09:06
17 without objection.

18 BY MR. BICKS: 09:06

19 Q Have you seen this before? 09:06

20 A I think I may have seen some of the news articles 09:06
21 attached to it, but I don't recall seeing this
22 letter.

23 Q So this is an article -- a letter from Mount Sinai 09:07
24 School of Medicine, you see it at the top, and it's
25 addressed to somebody at the Washington Post.

1 Do you see that? 09:07

2 A Right. 09:07

3 Q Let me ask you again, have you seen this letter 09:07
4 before?

5 A I may have. I don't recall if I have or not. I 09:07
6 may not have. I just don't know.

7 Q The reason I'm putting it before you is I was -- 09:07
8 the question that I had on the table was, do you
9 know whether or not Dr. Selikoff agreed with
10 Dr. Chalmers' statements that he made in that
11 article about the safety of baby powder and talc?
12 Are you with me? That's why I brought this out.

13 A I understand your reason in asking about it now, 09:07
14 yes.

15 MR. BICKS: So can we blow up, Jim, the second 09:07
16 paragraph.

17 Q Do you see here where Dr. Selikoff is stating that 09:07
18 "I specifically stated that I was in agreement with
19 Dr. Chalmers."

20 Are you with me? 09:08

21 A Yes. 09:08

22 Q To you, as someone who listens to this, when you 09:08
23 hear Dr. Selikoff agreeing with a comment about the
24 safety of Johnson's baby powder and the absence of
25 asbestos, as somebody in your field, do you put

1 weight in what somebody like Dr. Selikoff says?

2 A Yes. 09:08

3 Q Because he was somebody who was pretty tough on 09:08
4 companies, and if he had a point of view that was
5 different, he didn't hesitate to speak out; right?

6 A Right. 09:08

7 Q And are you also familiar with -- and again, this 09:08
8 goes back to what you do in your work, is you look
9 at what's known and knowable; right? What's out
10 there for people to see, you go to libraries, you
11 find articles and things like that; right?

12 A Right. 09:08

13 Q So did you tell the jury yesterday about the 09:09
14 published study that came out in 1976 by -- do you
15 remember Dr. Rohl? Do you know who he is?

16 A Yes. 09:09

17 Q Tell the jury who he is. 09:09

18 A He was one of the microscopists who worked at Mount 09:09
19 Sinai School of Medicine.

20 Q Are you -- do you have a position to tell our jury 09:09
21 anything about -- was he a good scientist?

22 A Well, as far as I know, yes. 09:09

23 Q Are you familiar that in 1976, Mount Sinai released 09:09
24 a study in the peer-reviewed literature by
25 Professor Rohl, Dr. Langer, and Dr. Selikoff that

1 examined a bunch of different talc samples? Are
2 you familiar with that?

3 A I think so.

4 Q Do you know what that article concluded about
5 Johnson & Johnson's talc?

6 A I don't recall the names of the individual
7 companies appearing in the article, at least the
8 ones I'm thinking of.

9 Q Have you ever made any effort, as part of coming
10 here to speak with this jury, to determine what
11 actual samples were being referred to in that
12 article?

13 A No, not beyond what the article itself says.

14 Q Do you know what samples were being referred to in
15 the article?

16 A Not off the top of my head.

17 Q Let me show you Exhibit 8096.

18 MR. BICKS: I think this is stipulated in.

19 MR. FINCH: No objection.

20 THE COURT: All right. The Court shows it
21 admitted.

22 BY MR. BICKS:

23 Q So have you seen this article before? And we can
24 just go to the top and leave this for a minute.
25 Have you seen this before?

1 A Yes. 09:11

2 Q If you look at the folks who wrote this, can you 09:11
3 think of scientists who were any better in the
4 world at this time at looking at the question of
5 whether or not there was asbestos in cosmetic talc?

6 A Well, the only ones I recognize are the ones from 09:11
7 the Mount Sinai lab, Rohl, Langer, and Selikoff. I
8 don't know the other three. Three or four.

9 Q It's a little bit tricky here, but I'd like to go 09:11
10 to 8096 in the table. It's Table 4, I'll pull it
11 up on the screen. It's a little bit hard to see.
12 Can you see that?

13 A I think it would be easier for me to read it here. 09:11
14 I do.

15 MR. BICKS: Can you just highlight, Jim. 09:11

16 Q I've highlighted some columns here for you, and 09:11
17 I've highlighted certain samples. Do you see that?

18 A Yes. 09:12

19 Q 4, 9, 18, and 20. 09:12

20 A Yes. 09:12

21 Q And then I've highlighted tremolite, anthophyllite, 09:12
22 and chrysotile.

23 Do you see that? 09:12

24 A Yes. 09:12

25 Q So this is looking at a bunch of different 09:12

1 companies' samples and determining whether or not
2 the folks at Mount Sinai saw any asbestos in them;
3 right?

4 A That's right. 09:12

5 Q For those samples, they saw nothing; right? 09:12

6 A They did not detect it, that's right. 09:12

7 Q And you would expect this group of scientists to be 09:12
8 using the best methodology; right? No?

9 A Yes. 09:12

10 Q Do you know whose samples those are that I've 09:12
11 highlighted?

12 A What products or what companies? No, that's not in 09:12
13 the article, I don't think.

14 Q Well, what you can do -- and let me just ask you by 09:13
15 the way, did plaintiffs' counsel show to you the
16 key that goes with these different samples?

17 MR. FINCH: Object, form. The key is not 09:13
18 publicly available.

19 THE COURT: I'll sustain the objection. 09:13

20 MR. BICKS: May I approach, Your Honor? 09:13

21 THE COURT: Yes. 09:13

22 MR. BICKS: So I have before you 8240. This 09:13
23 is stipulated in through Dr. Hopkins. So I would
24 tender the exhibit.

25 THE COURT: Any objection? 09:13

1 MR. FINCH: No. 09:13

2 THE COURT: Oh, you said it was stipulated. 09:13

3 The Court shows it admitted.

4 BY MR. BICKS: 09:58

5 Q So you see this is a list -- 09:13

6 MR. BICKS: If we can kind of blow it up 09:13

7 there, Jim.

8 Q This is a list that -- of different samples of talc 09:14

9 and it's got numbers, 4, 9, 18, 20.

10 Do you see that? 09:14

11 A Yes. 09:14

12 Q And those are the ones that are Johnson & Johnson; 09:14

13 right?

14 A According to this document, yes. 09:14

15 Q Right, 4, 9, 18, and 20, and these are the same 09:14

16 ones that are referred to in the Selikoff article;

17 right?

18 A I don't know if that's the case or not. 09:14

19 Q Well, you do know, because I think you had some 09:14

20 sense of -- and you don't dispute that; right?

21 A No. 09:14

22 Q You don't dispute that Selikoff, Rohl, Langer 09:14

23 looked at Johnson & Johnson's talc and tested it

24 and didn't find asbestos; right?

25 A That appears to be the case from what you've just 09:14

1 shown me.

2 Q Right. And to the point that counsel made, I mean, 09:14
3 you are aware that this was reported in the media;
4 right? Have you seen articles in the New York
5 Times that reported these results and concluding
6 that Johnson & Johnson's powder did not have
7 asbestos in it?

8 A I recall there were reports in the media earlier, 09:15
9 well, earlier in the month of -- I think of March
10 of 1976, yes.

11 Q So let me show you 8402. Do you remember the New 09:15
12 York Times coming out with an article that
13 indicated that following up on this scientific
14 study, that Johnson & Johnson's baby powder did not
15 have asbestos in it?

16 MR. BICKS: And 8402, it's again used with 14:39
17 Dr. Hopkins. I would move for its admission.

18 MR. FINCH: No objection. 09:15

19 THE COURT: The Court shows it admitted 09:15
20 without objection.

21 BY MR. BICKS: 09:58

22 Q So if you -- have you seen this before, by the way, 09:15
23 Dr. Castleman?

24 A What's the date? I can't tell what the date of it 09:16
25 is, of the article itself is. It just says 1976.

1 Q Yeah, if you go up -- 09:16

2 A 3-10, it looks like March 10. 09:16

3 Q March 10, 1976. 09:16

4 A Yeah, I think I have seen this. 09:16

5 Q And can we just highlight -- do you see that it 09:16

6 says that the products that the research found
7 uncontaminated with asbestos fibers, and it lists
8 Johnson's -- two Johnson & Johnson's baby powders,
9 do you see that?

10 A Yes, I do. 09:16

11 Q Is that consistent with what you remember, that 09:16

12 Mount Sinai and these researchers had tested
13 Johnson & Johnson's baby powder and found that it
14 did not contain asbestos?

15 A Or that they did not detect asbestos in it, yes. 09:16

16 Q Right. And I'm just saying for you, if you were 09:16
17 back in that time, and we can't go back in time,
18 but if you were in the position at a company at
19 this time and you were receiving information from
20 Mount Sinai to this effect, how much stock would
21 you put in that information?

22 A Well, I would find that reassuring. 09:17

23 Q I think you were asked before, in the 1970s, a 09:17
24 company like Johnson & Johnson, who should they
25 have looked to to determine what the gold standard

1 in testing was? Do you remember who you said?

2 A I would have thought Mount Sinai. 09:17

3 Q You also have talked about before something called 09:17
4 the National Institute of Occupational Safety and
5 Health. Are you familiar with that government
6 agency?

7 A I am. 09:17

8 Q Is NIOSH a recognized authority on public health 09:17
9 matters relating to asbestos?

10 A Yes. 09:17

11 Q Were they such an authority going back to the 09:17
12 1970s?

13 A They were. 09:17

14 Q In your own work, do you rely on NIOSH and its 09:18
15 publications?

16 A Yep. 09:18

17 Q Do you think it would be reasonable for a company 09:18
18 evaluating science issues on talc in particular to
19 pay attention to what NIOSH says?

20 A Yeah. 09:18

21 Q What about the Harvard School of Public Health, do 09:18
22 you think that's a reputable institution?

23 A Generally, yes. 09:18

24 Q Same questions as to NIOSH, would it be responsible 09:18
25 for a company to listen to research results from

1 the Harvard School of Public Health?

2 A Yeah.

3 Q Are you familiar that the Harvard School of Public
4 Health and NIOSH published a study on Johnson &
5 Johnson's talc deposit in Vermont and actually took
6 samples from that deposit; are you familiar with
7 that?

8 A I'm not sure if I'm familiar with the particular
9 study you're talking about.

10 Q Well, let me see if I can help you out. 8079 is
11 before you.

12 MR. BICKS: Your Honor, this is an exhibit
13 that I think is stipulated with Dr. Hopkins. I
14 would move to admit.

15 MR. FINCH: No objection.

16 THE COURT: The Court shows it admitted
17 without objection.

18 BY MR. BICKS:

19 Q Have you seen this before, Dr. Castleman?

20 A I may have. I'm not sure.

21 Q Well, if you look at the folks up at the top and
22 their names, Maryann Boundy, Karen Gold, Kenneth
23 Martin, William Burgess, and John Dement, in your
24 field, have you come across these individuals
25 before?

1 A Some of them. Certainly Burgess and Dement. 09:20

2 Q And tell us our jury who Burgess and Dement are. 09:20

3 A Burgess wrote a book on industrial hygiene, and 09:20
4 John Dement has published extensively on asbestos
5 and disease.

6 Q And would you consider these people as some of the 09:20
7 top in the field?

8 A Yeah. 09:20

9 Q Maryann Boundy, do you know who she is? 09:20

10 A No, I don't. 09:20

11 Q A recognized person, expert in minerals and so 09:20
12 forth from North Carolina. Any of that ring a
13 bell?

14 A No, I don't -- I don't know the first three 09:20
15 authors.

16 Q And again, I want to just come back to this, 09:20
17 because you talked a lot about -- on your direct
18 about the hazards of asbestos. I guess my question
19 to you, have you done a deep dive in terms of the
20 published literature on the safety of the talc that
21 Johnson & Johnson used?

22 A I wouldn't call it a deep dive. I'm familiar with 09:21
23 a couple of mines that I've heard that they used,
24 but I haven't tried to read everything that's ever
25 been published about those mines and the material

1 from them.

2 Q So I guess my question is, in your research, did 09:21
3 you come up with this article?

4 A Like I think I said, I don't really recall the 09:21
5 article, but I may have seen it at some time.

6 Q Well, did you know -- and maybe we can just 09:21
7 highlight the introduction here. Did you know that
8 these scientists had gone back and looked at
9 geological studies dating from the early 1900s that
10 have shown that the Vermont talc deposits contained
11 no asbestos? Had you ever seen this before until I
12 showed it to you today?

13 A You're talking about this article? 09:22

14 Q Yes, and this particular statement. 09:22

15 A Well, I certainly don't recall the statement, and I 09:22
16 really don't recall the article, although as I say,
17 I may have come across this article at some time in
18 my life and I don't recall.

19 MR. BICKS: And can we go, please, Jim, to the 09:22
20 bulk samples.

21 Q And I don't want to -- if you're not that familiar 09:22
22 with this, but are you aware that these scientists
23 actually at NIOSH did sampling from this deposit
24 that included petrographic microscope analysis,
25 transmission electron microscopy, and x-ray

1 diffraction with step-scanning, do you know
2 anything about that?

3 A Well, as I said, I don't recall this article in any 09:22
4 detail. If I've seen it before, I don't recall
5 whether I've seen it before. So these are details
6 that I can't recall either.

7 Q Are you familiar, then, with the findings that they 09:23
8 made based on their testing?

9 A No. You can see whatever it is that's in the 09:23
10 article. It says what it says.

11 Q I take it you didn't do any research to look into 09:23
12 how they did this, what they did, and you didn't
13 make any effort to reach out to them; right?

14 A That's right. 09:23

15 Q Because there have been certain circumstances where 09:23
16 they're scientists and you do reach out to them;
17 right?

18 A I have on occasion, sure. 09:23

19 Q Right. You wrote letters to Johnson & Johnson, 09:23
20 they got back to you promptly and, I think it's
21 fair to say, treated you with respect; is that
22 fair?

23 A Well, they seemed to, yes. 09:23

24 Q I don't remember -- I remember when I was in 09:23
25 college, if I wrote letters to senior people, there

1 may have been times when I never heard back from
2 them. That didn't happen to you with Johnson &
3 Johnson; right?

4 A Right. 09:23

5 Q What about Lancet? You mentioned Lancet on your 09:24
6 direct. And tell our jury of the reputation of
7 Lancet.

8 A It's a general medical journal, like the Journal of 09:24
9 the American Medical Association and the British
10 Medical Journal.

11 Q And do you consider that a respected journal? I 09:24
12 think you said it may have been the oldest journal,
13 British Medical Journal, is that what you had said?

14 A Yes. 09:24

15 Q Are you familiar with publications by Lancet that 09:24
16 deal with cosmetic talc?

17 A I think I've seen publications in The Lancet about 09:24
18 cosmetic talc or about talc.

19 Q And The Lancet, can you think of any journal that 09:25
20 has a better reputation than Lancet?

21 A Well, it has a good reputation, like a lot of 09:25
22 journals do. I mean, there are always going to be
23 things that get published that can be published in
24 any journal that turn out to be flawed. But
25 generally speaking, they're as respected as any

1 journal.

2 Q I think on direct, I'm only asking -- you mentioned 09:25
3 Lancet, so that's why I'm raising it.

4 A Well, I just mentioned it from the standpoint of 09:25
5 its availability of something that was -- The
6 Lancet being widely available.

7 Q Right. And it's something that certainly in your 09:25
8 work you rely on and have written about Lancet;
9 right?

10 A Sure. 09:25

11 Q So this is Exhibit 9100. It's a Lancet June 25, 09:25
12 1977, article. Have you seen this before?

13 A Yes. 09:26

14 MR. BICKS: I would move to admit this. 09:26

15 MR. FINCH: No objection. 09:26

16 THE COURT: The Court shows Exhibit 9100 09:26
17 admitted without objection.

18 MR. BICKS: Can we go, Jim, to the last page 09:26
19 of this, and the last paragraph and blow it up,
20 please.

21 BY MR. BICKS: 09:26

22 Q And this -- so we're clear, this is an article that 09:26
23 appears in Lancet, June 25, 1977. And we're at the
24 conclusion. The topic of this is cosmetic talc
25 powder; right?

1 A Yes. 09:26

2 Q And you see what I have up here, the summary is 09:26
3 that -- and just to orient us, this is 1977. And
4 the summary here is that "There's no reason to
5 believe that normal consumer exposure to cosmetic
6 talc has in the past led either to cancer at any
7 site or to measurable loss of lung function. It
8 seems unlikely that future exposure to cosmetic
9 talc of the specifications now agreed to by major
10 manufacturers will present a health hazard."

11 Did I read that right? 09:27

12 A Yes, you did. 09:27

13 Q In somebody in your field, back in 1977, when you 09:27
14 read something like this in Lancet, is this
15 something that you place stock in?

16 A Yes. 09:27

17 Q Now, one thing that you do have in your book is 09:27
18 you've written about products like Kaylo. Can you
19 tell our jury what Kaylo is.

20 A That was an insulation containing asbestos that was 09:27
21 made by a company called Owens Corning.

22 Q And a good product or bad product? 09:27

23 A As far as I understand, it worked fine as an 09:27
24 insulation material. The only danger was that the
25 dust could lead to asbestos diseases.

1 Q You've written about Kaylo in your book; right? 09:28

2 A Yes. 09:28

3 MR. BICKS: Can we just go to the ELMO, 09:28
4 please.

5 Q And for the record, I've got your fifth edition 09:28
6 book, "Asbestos medical and legal aspects." I have
7 your chapter here on Owens Corning. You mentioned
8 Owens Corning; right?

9 A Right. 09:28

10 Q You see there the reference to -- that they made a 09:28
11 series of products. They made insulation
12 materials. Are you with me? And something called
13 Kaylo; right?

14 A Right. 09:28

15 Q Do you remember whether or not Kaylo had asbestos 09:28
16 in it?

17 A It did. 09:29

18 Q Do you remember how much? 09:29

19 A Well, I think about 10 to 15 percent. 09:29

20 Q Yeah, close, very close. It's actually 12 to 09:29
21 18 percent.

22 There we go. It's a little slanted, but you 09:29
23 see here the 12 to 18 percent. Does that sound
24 about right?

25 A Well, that's an internal document of the company. 09:29

1 I would imagine that that's correct.

2 Q Yeah, yeah. And do you remember whether or not -- 09:29
3 no question that this is a real health hazard,
4 right, having 12 to 18 percent in insulation
5 material like this; right?

6 A Right. 09:30

7 Q And do you know -- I think you had reported in some 09:30
8 of your studies about the amount of dust that would
9 be released when somebody's manipulating that
10 Kaylo; right? Do you remember writing about that?

11 A Yeah. 09:30

12 Q And I'm happy to show it to you, but can you just 09:30
13 tell our jury -- and just so our jury is oriented,
14 do you know actually about the specific allegations
15 in this case about exposure?

16 A Well, I haven't read any of the legal documents, so 09:30
17 I guess the answer is no.

18 Q You don't know that the plaintiff in this case, a 09:30
19 very nice lady, Ms. Lewis, worked at a facility in
20 Kokomo, Indiana. Do you know anything about that?

21 A I understand that she worked with some dental 09:30
22 appliances. That's all I know about that.

23 Q So you don't -- you haven't been informed that 09:31
24 she's claiming that she was exposed to asbestos at
25 a Delco facility because of work that was being

1 done there. Do you know anything about that?

2 A Just in general. I haven't read any of the 09:31
3 specific testimony or documents.

4 Q So when you come here, and I appreciate you talk 09:31
5 about certain things, but you haven't informed
6 yourself about what the specific claim in the case
7 is, then, about exposure?

8 A No, I don't read the medical records and the 09:31
9 testimony of all the individuals in the case, no.

10 Q But have you testified before in cases where a 09:31
11 plaintiff law firm hires you and the question in
12 the case is, did somebody get sick from Kaylo
13 exposure?

14 A I've never been asked to testify about that in 09:31
15 particular. I don't testify about medical
16 causation. My testimony is about what was known
17 and knowable about the hazards of the product by
18 the manufacturer. In the case of Owens Corning,
19 there are internal corporate documents showing that
20 they knew about the hazards of asbestos in their
21 product from practically the time the product was
22 introduced.

23 Q Fair point. In other words, when you come to 09:32
24 testify, you've got -- and I don't mean it
25 negatively, but I think it's fair, you've got

1 blinders on, you're focusing on kind of what you
2 know, and you're not looking at kind of the whole
3 picture of the case.

4 A Well, I wouldn't put it that way, but my part of 09:32
5 the case is just part of it. It's about the
6 history, the knowledge of asbestos. It's not about
7 the medical pathology related to the diagnosis and
8 medical care and treatment of the individuals. I
9 mean, I have a limited role in all of these cases.

10 Q Right. But fair enough. My only question is, you 09:32
11 have testified in cases about knowledge about
12 Kaylo; right?

13 A Yeah. 09:32

14 Q But you haven't been asked by plaintiffs to share 09:32
15 that knowledge here, I take it.

16 A About Kaylo, no. 09:33

17 Q So you have done work -- and Kaylo also had what's 09:33
18 called commercial amphibole asbestos in it; right?

19 A Yes. 09:33

20 Q Tell our jury what commercial amphibole asbestos 09:33
21 is.

22 A Well, in the case of Kaylo, it was a product called 09:33
23 amosite asbestos that came from South Africa.

24 Q How dangerous is exposure to amosite asbestos? 09:33

25 A Well, like all forms of asbestos, it causes 09:33

1 mesothelioma.

2 Q Can it cause mesothelioma if it's a short exposure? 09:33

3 A Yes. 09:33

4 Q Were you provided with the testimony in this case 09:33
5 of the plaintiffs' expert, Dr. Ellenbecker. Do you
6 know who he is?

7 A I've heard of Dr. Ellenbecker, but I haven't read 09:33
8 any testimony that Dr. Ellenbecker may have
9 recorded in connection with this case.

10 Q You weren't provided with his testimony about 09:33
11 amosite and things of that nature?

12 A No. 09:34

13 Q So I want to just show you, back to this Kaylo and 09:34
14 your work on exposure, you have indicated -- and
15 this is from your book. Are you with me?

16 A Yes. 09:34

17 Q And here you're talking about -- what I'm trying to 09:34
18 orient our jury on is an understanding of what can
19 be released in terms of exposure from Kaylo. And
20 this is something you've written about; right?

21 A Right. 09:34

22 Q And, in fact, here you have an entry that talks 09:34
23 about dust counts of Kaylo release; right?

24 A Right. 09:34

25 Q And it says there, "3.1 to 100.4 mppcf for 09:34

1 Thermobestos and 3.1 to 17.1 mppcf for Kaylo."

2 That's a lot of letters and a mouthful, but I 09:35
3 bet you can translate it for us. What's that
4 saying?

5 A Well, mppcf means millions of particles per cubic 09:35
6 foot. And at least the higher range of those
7 numbers would probably be visibly dusty, not the
8 lower range.

9 Q So let me see if I can then translate it. A cubic 09:35
10 foot, like let's imagine that we took a clear box,
11 right, cubic foot would be like this, right. I
12 pulled it up like this and it would be a box 12 by
13 12 by 12, right?

14 A Right, inches. 09:35

15 Q And so I would hold it up, and this says Kaylo dust 09:35
16 counts ranged from 13.1 to 101.4. Is that million
17 particles per cubic foot?

18 A Right. 09:36

19 Q And then for Thermobestos, 3.1 to 17.1 million 09:36
20 particles per cubic foot for Kaylo; right?

21 A Well, the first figures are for a Johns Manville 09:36
22 product called Thermobestos, and the second range
23 is for an Owens Corning product called Kaylo.
24 They're both thermal insulation products.

25 Q Right. And just again, we're talking like millions 09:36

1 of particles in just one cubic foot; right?

2 A Right.

3 Q So if somebody's there, say, several years, would
4 you be in a position to give us a sense of how much
5 exposure there might be, or is that outside of your
6 wheelhouse?

7 A It is. I mean, we're talking about exposure a
8 worker would get from sawing up these materials, as
9 I understand this document.

10 Q Right. And you don't know enough about what was
11 actually going on in this case to really comment
12 upon that; right?

13 A Well, I don't do these kinds of projections and
14 estimates about what the individual exposures might
15 be for, say, a bystander to some Kaylo handling
16 that may have taken place.

17 Q But you have written about -- and let me just back
18 up for a minute. I want to put this down. I want
19 to ask you about this. This is in your book, and I
20 guess it's a chapter by somebody named Stephen
21 Berger.

22 A This is the one chapter contributed by someone
23 else, yes.

24 Q Good chapter, good work, you think?

25 A Well, I wouldn't have published it in my book if I

09:36

09:36

09:36

09:36

09:37

09:37

09:37

09:37

09:37

1 didn't think it was good.

2 Q I got that. It says here in the introduction, "Of 09:37
3 all the uses of asbestos that have achieved
4 widespread application, none can rival the toll of
5 death and disease resulting from the use of thermal
6 insulation used in the presence of millions of
7 workers in shipyards, sites, refineries, chemical,
8 power plants. The dust from insulation wafted into
9 surrounding communities in an ever-widening radius
10 of destruction."

11 That's what was written in your book by 09:38
12 Mr. Berger; right?

13 A Right. 09:38

14 Q And you spoke about on direct the work of 09:38
15 Dr. Selikoff with insulators; right?

16 A Right. 09:38

17 Q Our jury -- this was new to me till I learned it. 09:38
18 But these are people who are putting, like, pipe
19 covering on, you know, really hot stuff; right?
20 And insulating it with pipe covering; right?

21 A Right. That was the purpose of thermal insulation. 09:38

22 Q It can be really dangerous is what this is saying; 09:38
23 right?

24 A Yes. 09:38

25 Q In fact, Dr. Selikoff, who you mentioned, he did 09:38

1 studies on people who were doing this thermal
2 insulation; right?

3 A That was their regular job, right. 09:39

4 Q I know there are a bunch of studies that he did, 09:39
5 but can you give us a ballpark of those folks who
6 were around thermal insulation, how many of those
7 folks got mesothelioma; do you remember the results
8 of those studies?

9 A No. The largest number of excess deaths was from 09:39
10 lung cancer followed by mesothelioma among the
11 insulation workers. By excess deaths, I mean
12 deaths above and beyond the number you would have
13 expected from that cause in a population of men of
14 that size.

15 Q And I appreciate the lung cancer issue, but I guess 09:39
16 my question was just on mesothelioma. I don't
17 think there's any dispute that a lot of those
18 insulators got mesothelioma, and that was a real
19 concern to Dr. Selikoff; right?

20 A Yes. 09:40

21 Q I mean, that was one of the most landmark studies, 09:40
22 that the folks who were working around this pipe
23 covering got a lot of mesothelioma?

24 A Yes. 09:40

25 Q You've also written about fireproofing and things 09:40

1 like that; right?

2 A Well, sprayed fireproofing was another material 09:40
3 containing asbestos that was the subject of a lot
4 of controversy starting in 1968 with an article in
5 the New Yorker magazine about that.

6 Q How much asbestos was in that kind of material? 09:40

7 A I think around 30 percent in some of those 09:40
8 products.

9 Q A lot of asbestos in those things; right? 09:40

10 A Right. 09:40

11 Q So a couple more topics, and then we're done. 09:40

12 Now, I want to come back to your work with the 09:41
13 Motley firm. You've worked with them a long time;
14 right?

15 A Well, yes. 09:41

16 Q And you mentioned Ron Motley, that you worked with 09:41
17 him back in the '70s; right?

18 A Right. 09:41

19 Q And you had communications with Dr. Selikoff also 09:41
20 during the 1970s; right?

21 A Right. 09:41

22 Q In fact, you had written communications with 09:41
23 Dr. Selikoff during that time period; correct?
24 Right?

25 A Yes, I did. 09:41

1 Q So before you is Exhibit 12231. 09:41

2 MR. BICKS: I'd move to admit it. 09:42

3 THE COURT: Any objection? 09:42

4 MR. FINCH: No objection, Your Honor. 09:42

5 THE COURT: The Court shows it admitted 09:42
6 without objection.

7 BY MR. BICKS: 09:42

8 Q So you've seen this before, Mr. Castleman, have you 09:42
9 not?

10 A I have. 09:42

11 MR. BICKS: Can we go, Jim, just to the top 09:42
12 and orient ourselves.

13 Q This is a memorandum from Barry Castleman to Irving 09:42
14 Selikoff, and it's dated November 5, 1979; right?

15 A That's what it says. 09:42

16 Q At that point, you had been involved testifying -- 09:42
17 that's when you had first started testifying for
18 plaintiffs, right, around that year?

19 A I had testified in one trial as of that date. 09:42

20 Q And you had started consulting three years before 09:42
21 that; right?

22 A Yes. 09:43

23 Q This letter, you're actually asking in writing that 09:43
24 information not be turned over that could impact
25 the case; right?

1 A Well, this is a document I was shown in 09:43
2 cross-examination in 2010 by a lawyer who wouldn't
3 say where he found it. I don't remember it. I
4 didn't remember it then. And it's not a form of my
5 typical letters to Dr. Selikoff. It's not on my
6 letterhead. My letters normally were, Dear Irving,
7 signed Barry, was the normal form of all of my
8 communications with Dr. Selikoff. And this is not
9 signed.

10 Q Right. But I've read your sworn testimony, and 09:43
11 I'll bring it out if you want. You have testified
12 under oath that you probably wrote this.

13 A I may have written it. 09:44

14 Q If we just back off for a minute and you look at 09:44
15 this, there's a lot of detail in this memo. You're
16 not suggesting that somebody fabricated this, are
17 you?

18 A Well, it could have been something that Motley 09:44
19 wanted me to send. Clearly the first two
20 paragraphs are describing Motley's concerns.

21 Q Right. 09:44

22 MR. BICKS: And let's just back off -- back 09:44
23 out for a minute, Jim, so we make sure that we see
24 this. You know, just go down to the bottom, for
25 example. You see the detail, if you can blow that

1 up.

2 Q This was an area that you were really involved 09:44
3 with, right, this fellow Vorwald's files and
4 something called the Braun-Truan study, Johns
5 Manville. I mean, this is really kind of part of
6 the research that you were doing; right?

7 A Yes. 09:44

8 Q And it's got things in there right above, "I'll try 09:44
9 to call you in a week with more information,"
10 things like that.

11 You were in touch with Dr. Selikoff during 09:45
12 this time period; right?

13 A Yes. 09:45

14 Q So let's just go back up to the top. I mean, it's 09:45
15 got your memorandum from Barry Castleman to Irving
16 Selikoff right at the top; right?

17 A That's what it says, yes. 09:45

18 Q I want to go through this so our jury sees it. You 09:45
19 say here that Ron Motley informs you that the
20 industry lawyers are hoping to get cases thrown out
21 of court by showing that the insulators themselves
22 knew about their job risks; right?

23 A That's what it says. 09:45

24 Q So you're now writing -- this Ron Motley -- just to 09:45
25 be clear, this is the Motley Rice firm that you're

1 working with; right?

2 A Yes. 09:45

3 Q And they represent plaintiffs in personal injury 09:45
4 asbestos cases; right?

5 A Yes. 09:45

6 Q And this was during a time period when you're 09:45
7 starting to get up and running as an expert
8 testifying for plaintiffs, right, to orient us?

9 A It's the beginning of my involvement as a 09:46
10 testifying expert witness, yes.

11 Q Right. And you're working with Ron Motley on these 09:46
12 kind of cases; right?

13 A Correct. 09:46

14 Q So he's informing you about industry lawyers. And 09:46
15 it says that the defendants hope to obtain
16 questionnaire materials used by you and Dr. Hammond
17 in the expectation of finding reference to when the
18 men said they first became aware of the dangers of
19 their trade; right? Ron and the other Plaintiffs'
20 lawyers are afraid that some of men would have
21 answered with 20/20 hindsight, recalling vaguely
22 that, I heard something back in the early 1940s;
23 right?

24 A That's what it says. 09:46

25 Q So our jury understands, one of the things you've 09:46

1 talked about, and if we look at the second
2 paragraph, "Discovery of such statements in
3 writing, even though made without much care and
4 without any knowledge that rights to compensation
5 might be jeopardized without any consultation with
6 their attorneys could throw out individual claims.
7 Further, a significant number of such statements
8 pre-1964 would hurt the state of the art case for
9 all the plaintiffs."

10 That's what's written here; right?

11 A Right.

12 Q And the state of the art case, that's what you
13 testified about, that's what you do; right?

14 A Right.

15 Q What was known when, that's what you come to court
16 and that's what you tell juries about; right?

17 A Right.

18 Q So what's being stated here is that if evidence was
19 turned over which showed that somebody knew about
20 something, say, in the '50s, that might hurt the
21 state of the art case when a witness like you wants
22 to come to court and say, nobody told them, they
23 didn't know? That's what people were worried
24 about; right?

25 A Well, that's apparently what Motley was worried

1 about, but Selikoff would have even asked the
2 lawyers -- would have even asked his patients a
3 legal question in his medical questionnaires.

4 Q And to cut to the chase, that's not right, is it, 09:48
5 from a perspective of someone in your position in
6 public health, to be writing a letter to somebody
7 and say, don't turn over information because it may
8 hurt my case?

9 A Well -- 09:48

10 Q You cannot be in court today in front of this jury 09:48
11 and this judge and say that this is all right.

12 A Well, as I'm saying, this would -- I was conveying 09:48
13 Motley's concerns in the first two paragraphs.

14 Q Well, you know, there are people who can say, you 09:48
15 know what, I know you've asked me to write this,
16 but I'm a public health person at Johns Hopkins,
17 and I'm not going to do it. Did you say that?

18 A No, I don't recall anything about this document. 09:48

19 Q So last question. The first thing you started out 09:49
20 with on your direct was your CV.

21 Do you remember that? 09:49

22 A Yeah. 09:49

23 MR. BICKS: ELMO, please, Jim. 09:49

24 Q And this is your CV that -- right, you spoke to the 09:49
25 jury about; right?

1 A Right. 09:49

2 Q Because I was looking at it, and we all probably 09:49
3 see a lot of CVs. I was looking on your CV for
4 your employment history. Where on the CV is that?

5 A I only described the history since I became an 09:50
6 independent consultant on the CV. I don't mention
7 that I worked in the chemical industry for about a
8 year; I worked as a public health official for
9 about a year and a half; and I worked for
10 nongovernmental organizations, the Center for
11 Science in the Public Interest and the
12 Environmental Defense Fund, for less than a year
13 each before 1975.

14 Q Got it. So I just -- because most people on their 09:50
15 résumé, they have their employment history,
16 education and then their professional work. You
17 don't have anything here about your employment
18 history is what you're saying?

19 A I don't include the employment history before 1975, 09:50
20 but it's well known to the people in this
21 litigation.

22 Q Oh, but it may not be well known to our jury 09:51
23 because they don't know you until they met you;
24 right?

25 A Oh, right. If you want to talk about it, go ahead, 09:51

1 let's talk about it.

2 Q Well, I think it's fair, do you not agree with me, 09:51
3 that when you present a résumé to somebody, it's
4 not unfair to say, I'd like to see the employment
5 history on the résumé; right? That's not
6 unreasonable?

7 A No. 09:51

8 Q So you have on here your degree at Johns Hopkins in 09:51
9 1968; right?

10 A My education, yes, is complete as to my college 09:51
11 degrees.

12 Q But you don't have on here that you began working 09:51
13 for Hercules, and you worked there for about a year
14 and a half; right?

15 A Right. 09:51

16 Q It's a little bit complicated, and I guess you 09:51
17 weren't exactly fired, but you were asked to leave
18 and you came back. But things didn't work out
19 there; right?

20 A Well, it worked out fine until I started 09:52
21 complaining about the way they were dumping
22 hazardous wastes and met with the senior vice
23 president, and that upset all the people along the
24 way who I didn't bother consulting with on my way
25 to meeting with the vice president.

1 Q Right. But you were basically asked to leave 09:52
2 Hercules; right?

3 A I was asked to leave a couple of days before my 09:52
4 scheduled departure, yes.

5 Q And then what was your next job after that? 09:52

6 A Baltimore County Health Department. 09:52

7 Q That was about 1972? 09:52

8 A '72 and '73. 09:52

9 Q I take it that's not on your résumé either; right? 09:52

10 A No. 09:52

11 Q You worked there for, what, about a year and a 09:52
12 half?

13 A Right. 09:52

14 Q You were fired from that job, then you were 09:52
15 rehired, and then you quit; did I read that right?

16 A Right. They fired me for testifying at a Senate 09:52
17 hearing and talking about community exposure to
18 asbestos.

19 Q And I know you're going to want to say why you got 09:53
20 fired, but just listen to what I'm asking you. I'm
21 asking you, were you fired, rehired, and then did
22 you quit?

23 A I was rehired with full backpay and then I quit. 09:53

24 Q And then after the Baltimore County job, you 09:53
25 were -- what was your next job?

1 A Center for Science in the Public Interest. 09:53

2 Q That was '73, '74, a little less than a year? 09:53

3 A Right. 09:53

4 Q That job, that's not on your CV either; right? 09:53

5 A No. 09:53

6 Q You were there for, what, about nine months, and 09:53

7 fair to say you were fired from that job?

8 A No. I'm still on good terms with those people, and 09:53

9 I just moved on to the next job.

10 Q Right. So your testimony when you were asked and 09:53

11 you said, they fired me a month after we got

12 asbestos-contaminated salt off the market, that

13 wasn't accurate?

14 A That was the next job. 09:54

15 Q Oh, so you got fired from the next job. I mixed 09:54

16 one up.

17 A Right. That's when I decided to become an 09:54

18 independent consultant. I haven't had a boss since

19 1975.

20 Q Well, your independent consulting, all of your 09:54

21 money is made because you testify for plaintiffs in

22 lawsuits; right?

23 A Most of my money comes from my involvement in 09:54

24 litigation. No independent -- no individual lawyer

25 can tell me what to do.

1 Q Right. But when you say most, let's be fair. 09:54
2 We're talking, like, over 90 percent; right?

3 A Yes. 09:54

4 MR. BICKS: Thank you, sir. 09:54

5 THE COURT: And that concludes cross? 09:54

6 MS. WEGLARZ: I just have a few questions. 09:54

7 THE COURT: Well, yes, but for Johnson & 09:54
8 Johnson.

9 MR. BICKS: Yes. 09:55

10 MS. WEGLARZ: Your Honor, I'd like to mark for 09:55
11 the record a piece of -- or the roll of tape that I
12 showed in opening statement as Exhibit 3.

13 MR. FINCH: As a demonstrative? 09:55

14 MS. WEGLARZ: Demonstrative only. 09:55

15 MR. FINCH: No objection for demonstrative 09:55
16 purposes.

17 THE COURT: All right. And could counsel 09:55
18 approach, please.

19 (A bench conference was held outside the 09:55
20 hearing of the jury.)

21 THE COURT: I just want to be clear that we 09:55
22 want to do direct, cross, second cross, and then
23 redirect.

24 MR. FINCH: Redirect, and that'll be it for 09:55
25 this witness.

1 THE COURT: For all the witnesses? 09:56

2 MR. FINCH: That's my understanding, yes. 09:56

3 THE COURT: Thank you. 09:56

4 (Resumption of live trial proceedings.) 09:56

5 MS. WEGLARZ: May I approach the witness? 09:56

6 THE COURT: Yes. 09:56

7 CROSS-EXAMINATION 09:56

8 BY MS. WEGLARZ: 09:56

9 Q Hello, good morning. I just gave you what's been 09:56
10 marked as demonstrative Exhibit 3. It's a roll of
11 pipe tape. You've seen this kind of a product
12 before; right?

13 A Yeah. 09:56

14 Q This is not -- when we're talking about insulation, 09:56
15 this is not insulation; right?

16 A It is not. 09:56

17 Q You can put that aside. 09:56

18 I represent a company called BMW Constructors. 09:56

19 I haven't read all of the editions of your book.

20 I've read the last one. Is it true that BMW
21 Constructors does not appear anywhere in your
22 books?

23 A That's correct. 09:56

24 Q You talked a little bit -- or we talked a little 09:56
25 bit about Kaylo. Kaylo was an insulation

1 manufacturer -- or was a type of -- sorry. I'm
2 rolling over my words.

3 Kaylo was a brand of insulation; right? 09:57

4 A Right. 09:57

5 Q And OCF, as of 1958, manufactured Kaylo? 09:57

6 A Yes. 09:57

7 Q When did OCF start -- or decide to start putting a 09:57
8 label on that insulation; do you remember?

9 A I think around -- it was around 1970, I think. At 09:57
10 least the company doctor was writing about how
11 maybe we better start doing it in that year.

12 Q I think you wrote in your book it was maybe -- 09:57
13 there's an internal memo, September 1970, that
14 they're saying, hey, maybe it's time we should
15 maybe start putting a label on asbestos insulation,
16 does that sound right?

17 A That's my recollection, yeah. 09:57

18 Q Do you agree that the employer of an individual is 09:57
19 responsible for providing a safe workplace?

20 A Generally, that's the way it's regarded, especially 09:57
21 since we had OSHA created in 1971.

22 Q Would that be the case even before OSHA was 09:58
23 created?

24 A Sure. That's at least people's expectation, if not 09:58
25 the reality.

1 Q You agree that it's the employer who has the most 09:58
2 control over the conditions in the workplace; is
3 that right?

4 A Sure. 09:58

5 Q That includes dust conditions? 09:58

6 A Yes. To the extent that there's dust in the 09:58
7 workplace, the employer is in a position to provide
8 measures to reduce the dust exposure of the
9 workers.

10 Q Just one last area. You agree that the knowledge 09:58
11 of hazards of asbestos has evolved over time?

12 A Yes. 09:58

13 Q We know a lot more today than we knew back in the 09:58
14 1930s?

15 A Yes. 09:58

16 Q And in the 1930s, the first studies were really 09:58
17 about people working in factories actually making
18 asbestos products?

19 A Well, the 1930s also included case reports of 09:59
20 asbestosis in office workers in asbestos factories
21 as well as production workers.

22 Q But in general, the epidemiology studies, what 09:59
23 people were concerned with were the people actually
24 making the asbestos products?

25 A In the '30s, yes. 09:59

1 Q And when you're making these asbestos products, 09:59
2 we're talking about huge exposures to asbestos?

3 A Well, in some cases, more than others. Again, 09:59
4 these are imprecise words.

5 Q Well, if we talk about the Meriwether study, I 09:59
6 think you mentioned Meriwether on direct, that was
7 over in England; right?

8 A Right. He was initially writing about asbestos 09:59
9 textile plants, and they were particularly dusty.

10 Q And we're talking -- what are the dust counts we're 09:59
11 talking about, hundreds of millions of particles
12 per cubic feet?

13 A In some cases over a hundred million particles per 09:59
14 cubic foot, yes.

15 Q And then later, the epidemiology started looking at 10:00
16 miners and millers, people actually extracting the
17 asbestos from the earth?

18 A Well, it was studies of asbestos miners as well as 10:00
19 asbestos manufacturing plant workers, yes, in the
20 1930s, epidemiology studies.

21 Q And you'll agree that it wasn't until Selikoff did 10:00
22 his studies in the mid 1960s that people actually
23 started linking use of an end product like asbestos
24 insulation to disease?

25 A No, that's incorrect. I mean, prior to Selikoff, 10:00

1 there were over 50 separate reports of death and
2 disease in insulators and, as I said, other
3 asbestos product users, published starting in the
4 early 1930s. They were case reports for the most
5 part. And then there were a few epidemiological
6 studies where they examined people who were
7 actively employed working as insulators and
8 reported on some fractional number of them that
9 were diagnosed as having asbestosis.

10 Q You mentioned there were case reports. Can you 10:01
11 explain to the jury what a case report is.

12 A A report of one or more individual cases of a 10:01
13 disease in a population.

14 Q A case report is drafted when someone finds 10:01
15 something, a doctor finds something peculiar, and
16 so they'll write it up to share it with other
17 doctors; right?

18 A Well, a case report could be published for lots of 10:01
19 reasons, but basically because the author thinks it
20 adds something to what's previously known about the
21 matter covered in the case report.

22 Q And you're familiar -- well, you worked with 10:01
23 Dr. Selikoff; right?

24 A Yes. 10:01

25 Q You're familiar with his "Partnership for 10:01

1 Prevention" program?

2 A I'm familiar with an article he published by that 10:01
3 title in 1970.

4 MS. WEGLARZ: Your Honor, may I approach the 10:01
5 witness?

6 THE COURT: Yes. 10:01

7 BY MS. WEGLARZ: 10:01

8 Q I'll hand you that article, just so you have it in 10:02
9 front of you.

10 A Thanks. 10:02

11 MS. WEGLARZ: And I'll mark it for the record. 10:02
12 I think the next exhibit would be 4.

13 MR. FINCH: For what purpose? I don't think 10:02
14 it goes back to the jury.

15 MS. WEGLARZ: It's not going back to the jury. 10:02
16 Just to talk about right now. Demonstrative
17 purposes only.

18 THE COURT: The Court shows admitted for 10:02
19 demonstrative purposes only.

20 MS. WEGLARZ: Well, illustrative, yeah, just 10:02
21 to be marked.

22 BY MS. WEGLARZ: 10:02

23 Q Can you turn to page 164, please. 10:02

24 A I'm sorry, what page? 10:02

25 Q I'm sorry, I don't know why I said that. Or 23. 10:02

1 A Yes. 10:02

2 Q And Selikoff writes in this article that -- and 10:02
3 he's talking about his work with insulation, the
4 insulation workers and his study that he was doing
5 in this; correct?

6 A Yes. He talks about that. 10:02

7 Q And he says, "Here we had, then, the first solid 10:03
8 evidence of these insulation workers were
9 experiencing exposures to dust inhalation in the
10 basic asbestos industry."

11 A I'm sorry, where does it say that, the first solid 10:03
12 evidence?

13 Q First paragraph of the page. 10:03

14 A Oh, yes. 10:03

15 Q So that's at least what Selikoff thought, right, 10:03
16 this is the first time they have solid evidence
17 that insulation workers are actually experiencing
18 these dust levels?

19 A Yes. 10:03

20 Q And he goes on to say that, "Our continuing study 10:03
21 of the work and health records of this group, union
22 members, confirms the higher risk of respiratory
23 disease and cancer for the insulating workers than
24 exists among the general population."

25 A Yes, that's what it says. 10:03

1 Q So at least in Selikoff's mind, this is the first 10:03
2 time they're actually seeing solid evidence that a
3 product like insulation, which releases hundreds, I
4 don't know, fibers per cubic feet sometimes, is a
5 problem? And this is in -- this article is 1970,
6 but they're talking about the studies in the mid
7 '60s; right?

8 MR. FINCH: Objection to form, multiple 10:04
9 compound questions there.

10 THE COURT: I'll sustain the objection. 10:04
11 Please rephrase the question.

12 BY MS. WEGLARZ: 10:04

13 Q Okay. At least in Selikoff's mind at this time, 10:04
14 he's saying that, my studies in the 1960s, this is
15 the first time we're actually confirming that
16 there's a problem with products that contain
17 insulation -- or contain asbestos, like insulation;
18 is that fair?

19 A Well, I mean, the sentence says what it says. It's 10:04
20 inconsistent with other things he published citing
21 a lot of the earlier work of reports of death and
22 disease. Maybe it's the term "solid evidence" that
23 makes a difference. I don't know.

24 Q But that's what Selikoff said; right? 10:04

25 A It says what it says, yes. 10:04

1 MS. WEGLARZ: Thank you. I have no further 10:05
2 questions.

3 THE COURT: Thank you, Ms. Weglarz. 10:05
4 Redirect? 10:05

5 MR. FINCH: Yes. 10:05

6 REDIRECT EXAMINATION 10:05

7 BY MR. FINCH: 10:05

8 Q Dr. Castleman -- 10:05

9 MR. FINCH: May I have the ELMO, Jon. 10:05

10 Q -- you were asked just a minute ago about case 10:05
11 reports.

12 A Yes. 10:05

13 Q Is the incidence of lung disease among people who 10:05
14 are vaping, is that a series of case reports that
15 the public health community is taking action based
16 on today?

17 A Right. 10:05

18 Q You were asked about this book jacket. 10:05

19 A Yes. 10:05

20 Q "I recommend it. It's unique." 10:05

21 Irving Selikoff, M.D., recommended your book? 10:05

22 A Yes. 10:05

23 Q It talks about information about asbestosis and 10:05
24 cancer, "company knowledge of asbestos hazards
25 gleaned from countless depositions, company

1 records, industry consultants, and trade
2 associations."

3 For internal company documents, are those 10:06
4 generally publicly available?

5 A No. 10:06

6 Q To see the full picture of the story of the 10:06
7 companies that you write about in this book, do you
8 have to see all of the company -- internal company
9 documents?

10 A Well, you have to make an effort to, and very often 10:06
11 when I'm deposed by the companies in discovery
12 depositions, I invite them to show me anything I
13 haven't seen in terms of their internal documents
14 that would give me a fuller understanding and
15 appreciation of the whole story.

16 Q When did you first start seeing Johnson & Johnson 10:06
17 internal documents?

18 A Quite recently. 10:06

19 Q Let's go through some of the exhibits that 10:06
20 Mr. Bicks showed you. I'm going to put them in two
21 piles, a publicly available pile and a not publicly
22 available pile. Can we do that?

23 A Sure. 10:06

24 Q So one of the things he showed you was an article 10:06
25 in The Lancet from 1977, "Cosmetic Talc Powder."

1 And that's publicly available; right?

2 A Right.

10:07

3 Q And in that article, I noted a part that Mr. Bicks
4 didn't ask you about. "If the inhalation of
5 particles of amphibole and silica contaminated talc
6 dust were found to be harmless, one might
7 reasonably assume that talc free from these
8 materials is safe. Kleinfeld and his colleagues
9 have studied the incidence of cancer and
10 respiratory disease in talc miners and millers in
11 New York State. The talc concerned, which is
12 heavily contaminated with both amphiboles and free
13 silica, was initially reported to be associated
14 with an increased mortality from mesothelioma and
15 cor pulmonale. Later the same workers reported
16 that men employed in the mine after dust levels had
17 been reduced had death-rates from malignancies that
18 were similar to those for White males in the U.S."

10:07

19 What is mesothelioma related to again?

10:08

20 A Asbestos.

10:08

21 Q And this is publicly available?

10:08

22 A Yes.

10:08

23 Q All right. This article in the New York Times,
24 "Asbestos found in ten powders," that's a publicly
25 available document; right?

10:08

1 A Yes. 10:08

2 Q Rohl, Langer, Selikoff, et cetera, this was a 10:08
3 publicly available document in 1976; right?

4 A I think the conference was in 1977 and it was 10:08
5 published in 1979, yes.

6 Q Okay. Just -- and just so -- 10:08

7 MR. FINCH: Can I have a piece of blank paper. 10:08

8 Q It was published in 1976. 10:08

9 A Oh, I'm sorry. I'm confusing it with another 10:08
10 article by the same authors. Yes, that's correct.

11 Q And just so we're clear who's who at Mount Sinai, 10:08
12 I'm going to draw this first. Mount Sinai had a
13 president that was Dr. Chalmers. I think you were
14 shown a press release by him.

15 A Yeah. 10:09

16 Q And then Dr. Selikoff was senior in age and 10:09
17 responsibility to Rohl and Langer; is that right?

18 A Right. 10:09

19 Q And Langer and Rohl were the microscopists? 10:09

20 A Right. 10:09

21 Q I can't say that word. People who used microscopes 10:09
22 to look for asbestos or other things; right?

23 A That's right. 10:09

24 Q Now, Mr. Bicks showed you a letter from 10:09
25 Dr. Selikoff. The letter is publicly available,

1 and also, so is the New York Times article, where
2 they were quoting some of his statements; right?

3 A Well, the New York Times article was publicly 10:10
4 available. I wouldn't say the letter was publicly
5 available, although it would have been freely
6 available, if anybody asked Dr. Selikoff for a copy
7 of it, he would probably have been happy to provide
8 it.

9 Q He would -- he could -- if you went to Mount Sinai, 10:10
10 you could ask for it from Mount Sinai and they
11 would provide it.

12 A I believe so. 10:10

13 Q The health records and the interviews of the 10:10
14 insulators that he was doing, would that be
15 something that would be protected by HIPAA today?

16 A Well, it would be regarded as medical 10:10
17 confidentiality between a patient and a doctor.

18 Q Okay. I want to ask you about something Mr. Bicks 10:10
19 didn't show you in this Defense Exhibit 8846. And
20 this is a quote from Dr. Selikoff. Can you read
21 that, where it says, "Selikoff acknowledges"?

22 A "Selikoff acknowledged." 10:11

23 Q "Selikoff acknowledged that the cosmetic industry 10:11
24 has 'gone ahead quietly improved the talc" -- it's
25 got direct quotes around gone ahead quietly and

1 improved the talc -- "but there's a huge chink in
2 their armor. They were dusting people with
3 asbestos all these years before, so what was put in
4 the lungs before is still there. 'I certainly
5 wouldn't want to be dusted with any asbestos.
6 There is no safe level of asbestos known.'"

7 That's what Selikoff was quoted in the New 10:11
8 York -- in this article about?

9 A Yeah. 10:11

10 Q And when he writes to the author of the article, he 10:11
11 doesn't -- he doesn't say that she misquoted him
12 about people being dusted with asbestos or that
13 there was a safe level of asbestos exposure, did
14 he?

15 A No, I don't think so. 10:12

16 Q This press release, Exhibit 7119, this is a 10:12
17 publicly available press release put out by Mount
18 Sinai; right?

19 A Yes. 10:12

20 Q All right. This press release came out March 23, 10:12
21 1976; right?

22 A Yes. 10:12

23 Q From the president of Mount Sinai? 10:12

24 A That's right. 10:12

25 Q The document that I showed you yesterday, 10:12

1 Exhibit 578, that is not publicly available, was
2 not publicly available till very recently; is that
3 correct?

4 A Yes, that's correct. 10:12

5 Q Let's just -- what's going on here is there's a 10:12
6 meeting with the president of Mount Sinai, the
7 director of the medical school, and the director of
8 personal relations from Mount Sinai, and then
9 Johnson & Johnson was represented by D.D. Johnson,
10 J.E. Burke, D. Petterson, L. Foster, and G.
11 Hildick-Smith. So five Johnson & Johnson
12 executives came to meet with Mount Sinai; right?

13 A Yes. 10:13

14 Q "Initially Dr. Chalmers, who had clearly given a 10:13
15 lot of thought to the issue, suggested it might be
16 wisest if all parties forgot the incident ...
17 nothing would be gained by obtaining a retraction
18 from Mount Sinai Medical School. Johnson & Johnson
19 representatives, however, clearly expressed their
20 desire to have a retraction statement to not only
21 allay the fears of many anxious parents, but to
22 correct the record concerning the safety of baby
23 talc and the fact that Mount Sinai scientists had
24 failed to report the talc samples studied were at
25 least three years old.

1 "The Mount Sinai group indicated that over the 10:13
2 weekend, the Selikoff group," and that's --
3 Selikoff group is referring to these people here;
4 right?

5 A Right. 10:14

6 Q "The Selikoff group had been studying six new 10:14
7 samples of talc and reported that all of them
8 contained minimal amounts of asbestos. Mount Sinai
9 management thought that this information should be
10 in the retraction statement, but the Johnson &
11 Johnson group assured the Mount Sinai management
12 that such a statement should be avoided in case the
13 analysis by the Selikoff group was in error.

14 "A discussion took place concerning the 10:14
15 content of a retraction statement, and agreement
16 was reached on the content of such a statement.
17 Dr. Chalmers indicated that he would write a
18 covering note for the statement and it would be
19 released to the news media. The Mount Sinai
20 management reluctantly agreed to release a
21 statement to correct the record on talc published
22 in the news media. The meeting was an amicable
23 one."

24 This meeting happened on March 31 -- actually, 10:15
25 the memo was March 31, '76. The meeting was

1 Monday, March 22, 1976?

2 A That's what it says. 10:15

3 Q And the press release came out the next day? 10:15

4 A I think so. 10:15

5 Q March 23, 1976? 10:15

6 A Yeah. 10:15

7 Q Let me show you one more document from the files of 10:15
8 Johnson & Johnson.

9 MR. FINCH: This is Plaintiffs' Exhibit 52,
10 Your Honor. I believe it's stipulated to be
11 admissible. I'd offer 52.

12 THE COURT: And it's been stipulated to, you 10:15
13 said?

14 MR. FINCH: Yes. 10:15

15 THE COURT: It says 47 here. 10:15

16 MR. FINCH: No, that was a deposition exhibit 10:16
17 number. The top is P-52, Your Honor.

18 THE COURT: All right, thank you. 10:16

19 MR. BICKS: Well, I don't have any objection 10:16
20 to the admissibility of it, but I have objection as
21 being relevant and this witness competent to talk
22 about it.

23 THE COURT: All right. The Court shows 52 10:16
24 admitted without objection, and now we'll deal with
25 the objection. But there's no -- you mean as to

1 the entire document?

2 MR. BICKS: Right. Well, let's see what ... 10:16
3 maybe there's foundation that he has -- knows
4 anything about this.

5 BY MR. FINCH: 10:16

6 Q Dr. Castleman, have you seen this document before? 10:16
7 It was in your talc file. Have you seen this
8 before?

9 A I think so, yeah. 10:16

10 Q And this is an internal document of Johnson & 10:16
11 Johnson, this wasn't publicly -- in the publicly
12 available pile, is it?

13 A That's correct. 10:16

14 Q This is June 17, 1972. "I asked Dr. Langer if he 10:17
15 can state that our baby powder," referring to
16 Johnson's baby powder, "is free of asbestos as a
17 result of the conference and review of August 3,
18 1971, with the FDA. He said he still thinks that
19 Johnson & Johnson's product contains minute traces
20 of asbestos, and he believes that he can find
21 asbestos fibers after breaking down the platelets
22 by ultrasonic energy."

23 Did I read that right? 10:17

24 A You did. 10:17

25 Q Was this document sent to you when you were writing 10:17

1 to Johnson & Johnson in the early 1970s?

2 A No. 10:17

3 Q Was it publicly available until very recently? 10:17

4 A No. 10:17

5 Q Dr. Castleman, have you in your book been able to 10:17
6 identify every entity that's ever exposed anybody
7 to asbestos ever in the history of world?

8 A No. 10:17

9 Q As someone who has spent his career as a public 10:17
10 health advocate, advocating for -- or testifying in
11 cases or in dealing with the public health
12 community, is it important to warn people about the
13 hazards of asbestos?

14 A Very important. 10:18

15 Q Do you wish you had had all of Johnson & Johnson's 10:18
16 internal files back in the 1970s?

17 A Yes. 10:18

18 Q You believe you might have done things differently 10:18
19 if you had?

20 MR. BICKS: Objection, speculation. 10:18

21 THE COURT: I'll overrule that objection. 10:18

22 A Yes is the answer. 10:18

23 MR. FINCH: No more questions, Your Honor. 10:18

24 THE COURT: Thank you. 10:18

25 MR. FINCH: May this witness be excused? 10:18

1 MR. BICKS: Can I ask a few follow-up, Your 10:18
2 Honor?

3 MR. FINCH: I didn't know that there was 10:18
4 re-recross.

5 MR. BICKS: He went outside the scope of what 10:18
6 I did. I have a few questions.

7 THE COURT: You can question as to the new 10:18
8 matters, briefly.

9 MR. BICKS: Can I do it from here? 10:19

10 THE COURT: Yes. 10:19

11 RECROSS-EXAMINATION 10:19

12 BY MR. BICKS: 10:19

13 Q Doctor, you were shown in Lancet a reference to the 10:19
14 New York Gouverneur deposit. Do you remember that?
15 Kleinfeld?

16 A I remember being shown the Lancet editorial. 10:19

17 Q Right, and the New York Gouverneur deposit; right? 10:19

18 A Well, the New York deposit is mentioned in The 10:19
19 Lancet.

20 Q Right. And counsel pointed you to that reference 10:19
21 to the Gouverneur deposit. Do you remember that?

22 A Yes. 10:19

23 Q You know that Johnson & Johnson didn't use that 10:19
24 deposit; right?

25 A As far as I know, that's correct. 10:19

1 Q When Johnson & Johnson wrote to you and told you 10:19
2 about Colorado School of Mines, Fred Pooley, and
3 all their reports, did you ever write back and say,
4 can I please see those reports?

5 A No. I took them at their word that the reports 10:19
6 were negative.

7 Q Sir, please answer my question. Did you ever say, 10:19
8 can I please see the reports?

9 A No. 10:19

10 Q Did you ever pick up the phone and send a letter to 10:19
11 Fred Pooley, hey, Dr. Pooley, I'd like to see your
12 testing, did you ever do that?

13 A No. 10:20

14 Q How about Colorado School of Mines, did you ever 10:20
15 reach out and say, hey, I'm a public health person,
16 I'm worried about that, can I see the reports?

17 A No. 10:20

18 Q In fact, when you were talking to this jury on 10:20
19 direct and talking about all your trips around the
20 world, talking to people, have you ever said to one
21 of those people, world health organizations, the
22 meetings, the World Bank, everybody, have you ever
23 come out in public and said to them, you should
24 take cosmetic talc off the market?

25 A No. 10:20

1 MR. BICKS: Thank you. 10:20

2 THE COURT: And Mr. Finch? 10:20

3 MR. FINCH: Nothing more, Your Honor. Unless 10:20
4 the jury has any questions.

5 THE COURT: And does the -- do the jurors have 10:20
6 any questions for this witness before he is
7 excused? And if so, you should write it down on a
8 piece of paper. Does anybody have one before I
9 call Bridget in? No?

10 All right, then. Thank you. Sir, you are 10:20
11 excused.

12 We're going to take a break now. We'll come 10:21
13 back at 20 till the hour, so that'll be 20 till 11.

14 THE BAILIFF: All rise. 10:21

15 (Whereupon, the jury exited the courtroom.) 10:21

16 THE COURT: Are there any matters that we need 10:22
17 to discuss? No?

18 MR. FINCH: Not yet. 10:22

19 (A brief recess was taken.) 10:22

20 THE BAILIFF: All rise. 11:02

21 (Whereupon, the jury entered the courtroom.) 11:02

22 THE COURT: Please be seated. Welcome back. 11:02
23 Thanks for your patience while Counsel and the
24 Court discussed scheduling going forward.

25 And now we are ready to begin on a new 11:02

1 witness.

2 MR. FINCH: May we proceed, Your Honor? 11:03

3 THE COURT: Yes. 11:03

4 MR. FINCH: May it please the Court. Good 11:03

5 morning, ladies and gentlemen, Counsel. We call

6 Dr. Mark Rigler.

7 THE COURT: Welcome, Dr. Rigler. 11:03

8 THE WITNESS: Thank you, Your Honor. 11:03

9 THE COURT: Could you please raise your right 11:03
10 hand.

11 MARK RIGLER, PH.D., 11:03

12 a witness called on behalf of the Plaintiffs, having 11:03

13 been first duly sworn by the Court, took the stand and
14 testified as follows:

15 THE COURT: Thank you. You may be seated. 11:03

16 DIRECT EXAMINATION 11:03

17 BY MR. FINCH: 11:03

18 Q Dr. Rigler, could you introduce yourself to the 11:03

19 jury and tell them where you're from.

20 A I'm Dr. Mark Rigler, and I am from Atlanta, 11:03

21 Georgia.

22 Q What is your profession, sir? 11:03

23 A I'm a consultant, and I work for my own company 11:03

24 called ASPEX, LLC. Previously I worked for a

25 testing laboratory called Materials Analytical

1 Services, MAS, located also in the suburbs of
2 Atlanta, Georgia.

3 MR. FINCH: Your Honor, we have previously 11:04
4 marked and it's going to be marked as Plaintiffs'
5 Exhibit No. 3, a copy of Dr. Rigler's curriculum
6 vitae. May I approach? We haven't put the exhibit
7 number on it yet, but can I approach, Your Honor?

8 THE COURT: Yes, you may. 11:04

9 MR. FINCH: Counsel has been provided a copy 11:04
10 as well. This is going to be Plaintiffs' 3.

11 BY MR. FINCH: 11:04

12 Q Dr. Rigler, this is your CV? 11:04

13 A Yes. 11:04

14 Q Do you have it on the monitor in front of you? Can 11:04
15 you see it there?

16 A Yes, I do. 11:04

17 Q Could you briefly go through your educational 11:04
18 background.

19 A I have a Bachelor of Science degree in biology from 11:05
20 Villanova University. I also have a Ph.D. in
21 microbiology from the University of Georgia. And
22 I've also done post-doctoral work on the same kinds
23 of subject matter at the University of Georgia for
24 my post-doctoral work.

25 Q Could you describe for the jury what formal 11:05

1 training you have had in using electron microscopes
2 to analyze substances to determine if there is
3 asbestos or other materials in them?

4 A Sure. The training that I have was at the 11:05
5 University of Georgia. There were two semesters of
6 electron microscopy. They specifically have a unit
7 for training for electron microscopy at the
8 university. I believe it's called the Center for
9 Ultrastructural Research now, and at that center
10 they have the -- a number of different kinds of
11 electron microscopes. They have transmission
12 electron microscopes. They have scanning electron
13 microscopes. And you learn to use those tools to
14 analyze all kinds of materials, from biological
15 materials to solid hard materials, particles, that
16 type of thing.

17 Q Could you give us a rundown of your employment 11:06
18 history, starting with your first job after
19 graduate school and then running up through the
20 present.

21 A Well, I was a research technician at the University 11:06
22 of Georgia and specifically doing ultrastructural
23 research using transmission electron microscopy.
24 It was in the plant pathology department, and we
25 were embedding and cutting different types of grass

1 tissues, seed grasses. The investigators were
2 trying to understand some processes with those
3 cells at the ultrastructural level.

4 Then I was director for a company called SCRS. 11:07
5 That was also a consulting company that I started,
6 and I did some consulting work for a couple of very
7 large firms. One was Genentech in south San
8 Francisco, California, a company that develops
9 drugs of all different kinds. They have very
10 interesting technologies.

11 Then I was a senior application specialist at 11:07
12 a company called RMC. They were a manufacturer of
13 tools for electron microscopy. So I was a field
14 specialist doing different kinds of work in
15 relationship to that company marketing their
16 products. I was a specialist for them.

17 Then -- 11:07

18 Q I'm going to stop you right there, Doctor. That'll 11:07
19 bring us up to about 1989.

20 A Okay. 11:07

21 Q Where did you go next? 11:07

22 A I was hired at Materials Analytical Services, 11:08
23 that's MAS. That is the laboratory that I worked
24 at for a little more than 30 years. So I was the
25 director of biological services when I first

1 started at that company. I became branch manager
2 and director of still biological services. Then I
3 was the VP and director of biological services,
4 continued there, then VP and materials group
5 manager at the time. Then -- let's see, what else
6 do we have here? Oh, senior consulting scientist,
7 yes, at the same company for microbiologicals, an
8 area that I specialize in. And then I managed the
9 laboratory for a number of years. That was about
10 four years. And then I became chief science
11 officer at the laboratory at the end of my career
12 there.

13 Q Was one of the main business activities of MAS to 11:09
14 test materials and human tissue to determine
15 whether there was asbestos in it?

16 A Yes, yes, that was one of the areas of 11:09
17 specialization for that company, and I headed those
18 efforts.

19 Q How many tests of materials, building materials or 11:09
20 other kinds of products, were you personally
21 involved in to determine if they had asbestos in
22 them while you were at MAS?

23 A Well, there were hundreds of different types of 11:09
24 products that the company tested for containing
25 asbestos.

1 Q Were you involved in many of those tests 11:09
2 personally?

3 A Yes. 11:09

4 Q Did you actually use the electron microscopes 11:09
5 personally in some of the testing for asbestos
6 materials and products?

7 A Yes, I did. The transmission electron microscope, 11:09
8 also the scanning electron microscopes.

9 Q Did the lab MAS have trained microscopists that 11:10
10 reported to you and the lab's owner that were
11 trained to use the microscopes to analyze materials
12 for the presence of asbestos?

13 A Yes, they did. That was part of my job 11:10
14 responsibilities were to oversee the microscopists.
15 As the laboratory manager, that's one of your jobs,
16 yes.

17 Q And you were at MAS up through July of this year? 11:10

18 A Yes, sir, I was. 11:10

19 Q Why did you decide to leave? 11:10

20 A I wanted to spend more time with my family. I have 11:10
21 a new granddaughter, and my time was becoming very
22 valuable at that point. So I -- that was one of
23 the reasons that I retired from MAS.

24 Q How old are you, sir? 11:10

25 A I will be 65 in January. 11:10

1 Q You look young for your age. How long was your 11:10
2 commute to and from the lab at MAS?

3 A On any given day, I don't know if any of you all 11:11
4 know Atlanta traffic, it is a challenge. So just a
5 one-way ride could be an hour 20 minutes, something
6 like that. So my round trip times were easily two
7 and a half hours, sometimes three hours if there
8 were accidents. I went through at least four
9 school zones, so that slows you down quite a bit.

10 Q Now, the jury has heard a little bit about the peer 11:11
11 review process as it relates to other experts. Do
12 you have any peer-reviewed publications in the
13 scientific literature, Dr. Rigler?

14 A Yes. 11:11

15 Q How many peer-reviewed publications do you have in 11:11
16 total?

17 A I apologize, but I haven't counted them. They're 11:11
18 on the CV.

19 Q Does it continue on for, like, a page and a half, 11:11
20 maybe 15 or 20 peer-reviewed publications?

21 A Yes, and there are also presentations that are on 11:11
22 there, scientific presentations that I've given.

23 Q Have you published in the peer-reviewed scientific 11:12
24 literature any articles addressing how to test for
25 asbestos in some kind of product or material and

1 what the asbestos concentration would be?

2 A Yes, yes. I published a paper in 1995 on the
3 asbestos content of Kent original micronite
4 filtered cigarettes. I don't know if any of you
5 ever heard about them, but they were a blue filter
6 very specific color, and the company touted them as
7 the safest cigarettes which you could smoke.

8 So we looked at those cigarette filters at
9 MAS, analyzed them, and came to find out that they
10 contained approximately 10 percent crocidolite
11 asbestos by weight. So that was a -- we did a
12 study where we -- we took cigarettes and we
13 squeezed them and we rolled them and then we didn't
14 do anything to them and we loaded them up into a
15 container that we would draw air through, as if,
16 you know, you were breathing through that, to see
17 what would be in the first couple of puffs, would
18 there be any crocidolite asbestos in the first
19 couple of puffs. And we found there were millions,
20 hundreds of millions of fibers in that first couple
21 of puffs.

22 And so we took that finding to a journal
23 called Cancer, it's a published peer-review
24 journal, and they did a rapid publication of that
25 work.

1 Q Is this a copy -- I'm not going to put it into 11:13
2 evidence, but is this a copy of the article that
3 describes the work and the methodology for
4 detecting asbestos in this product?

5 A Yes. 11:14

6 Q Just so the record is clear, Kent made this 11:14
7 asbestos-containing cigarette filter between 1952
8 and 1954?

9 A Yes. 11:14

10 Q And Melody Lewis would have been, like, five or six 11:14
11 years old at that time? She was born in --

12 A I believe so, yes. 11:14

13 Q -- '48. There's no evidence at all in the case 11:14
14 that she ever smoked a Kent cigarette with an
15 asbestos filter?

16 A Not that I know of, no. 11:14

17 Q So back to -- back to your qualifications, at MAS, 11:14
18 was it a regular practice for you and other
19 scientists to rely on --

20 MR. FINCH: Can I have the PowerPoint, Jon. 11:14
21 Sorry.

22 Q -- trained microscopists to review products or 11:14
23 substances or materials to determine if they
24 contained asbestos?

25 A Yes. 11:14

1 Q And is that an accepted practice for scientists and 11:14
2 researchers in the field, to rely on lab
3 technicians and other people to help them identify
4 asbestos in products or materials?

5 A Yes. In the scientific world, technologists are 11:15
6 routinely relied upon for results from testing.

7 Q While you were at MAS, how many different asbestos 11:15
8 products were tested over the years?

9 A Oh, I don't know. It had to be hundreds, hundreds 11:15
10 of products that were tested for asbestos. There
11 were many, many, many products asbestos were in.
12 This slide is showing a number of companies that
13 MAS consulted for, and not necessarily all of them
14 were for testing asbestos. BMW that you see on
15 there was BMW Motors.

16 Q That wasn't the BMW Constructors that's at issue in 11:16
17 this case, is it?

18 A Right. 11:16

19 Q What kind of quality control programs did MAS have 11:16
20 to analyze, stay up to date with the procedures it
21 was using, that you and the scientists were using
22 to test materials or products?

23 A The quality programs for all laboratories, all 11:16
24 certified laboratories have quality programs
25 whereby they have specific steps and routines and

1 procedures that they have to follow in order to get
2 reproducible data.

3 For instance, when you go to the doctor and 11:16
4 you get a lab test done by LabCorp or some of them,
5 they have programs that are very stringent. In the
6 asbestos testing realm, for most laboratories, they
7 have what's called an ISO 17025 designation that
8 you see on the screen there. I know there are a
9 lot of certifications on there. We'll just talk
10 about them briefly.

11 Q ISO standards for what, sir? 11:17

12 A International Standards Organization. 11:17

13 Q Okay. 11:17

14 A And they are a -- they're a group of scientists 11:17
15 that come up with standard methods and
16 methodologies that everyone follows so that
17 everyone is doing the same kinds of things so the
18 results are comparable across laboratories.

19 So you see some other designations on here. 11:17
20 AIHA, that's American Industrial Hygiene
21 Association. The A2LA you see on there, that's
22 American Association for Laboratory Accreditation.
23 There's also ASTM, American Standards for Testing
24 Materials, NVLAP and on. And each one of these has
25 a basis in 17025.

1 MAS was also an FDA registered laboratory. 11:18

2 But the point here is that MAS followed a very
3 stringent quality control program.

4 Q There's a reference there to something called the 11:18
5 AIHA. What is the American Industrial Hygiene
6 Association?

7 A Again, it's a group of scientists who have 11:18
8 developed standards for the analysis and testing of
9 environmental samples and materials, and they also
10 provide a certification service for laboratories.
11 MAS, that laboratory had -- the laboratory number
12 was 100655. Each one of the laboratories has a
13 designation. That means they've gone through a
14 program whereby auditors from the AIHA, independent
15 third-party auditors come out and they go through
16 all of the laboratory's systems and they check them
17 for compliance to their program. And if they
18 comply, and they do this every two years, then the
19 AIHA will give them a certification.

20 Q Could you describe for the jury what training you 11:19
21 have had in industrial hygiene principles as it
22 relates to asbestos.

23 A At MAS, there were industrial hygienists, in fact, 11:19
24 I believe there still are, who are on staff. Now,
25 these are people who essentially do -- they do

1 safety training for the laboratory there. One of
2 their major jobs is workplace safety and health.

3 And so what they do is they follow standards 11:19
4 for checking to be sure that workplaces are safe
5 and healthy for all different kinds of things,
6 whether it be hazards for slip and fall, whether it
7 be air standards for the amount of particles in the
8 air, dust, that type of thing. And what they do is
9 they go around and they'll test for things. You've
10 heard of standards for audiology, too much noise,
11 too much sound. An industrial hygienist will go
12 out with an audiometer, a meter that would measure
13 that. So they would go to a rock concert, they
14 could tell you, you're way off the scale here for
15 acceptable workplace noise.

16 But in our case, I have been -- worked 11:20
17 alongside of and trained and also overseen
18 industrial hygienists at MAS who did testing on air
19 samples and other kinds of samples that contained
20 asbestos.

21 MR. FINCH: Can I have the ELMO again, Jon. 11:20

22 Q And Dr. Rigler, in your CV, it has a list of 11:20
23 memberships. Have you personally been a member of
24 the American Industrial Hygiene Association and the
25 American Conference of Government Industrial

1 Hygienists, ACGIH?

2 A Yes. 11:21

3 Q Now, it says it's updating here. What does that 11:21
4 mean?

5 A When I left MAS, I was a member of each one of 11:21
6 these different organizations, and so with my new
7 company, ASPEX, I have to get my address changed, I
8 have to get updated information to them, I have to
9 reapply for my memberships, that kind of thing. So
10 that's why it says updating. I'm about halfway
11 through the list right now. So that's what's going
12 on with all of that.

13 Q And you're in the process of doing the paperwork to 11:21
14 get recertified by things like the Microscopy
15 Society of America, the American Society for
16 Microbiology, the American College of Occupational
17 and Environmental Medicine?

18 A Yes, sir. 11:22

19 Q This paper that you worked on about asbestos in 11:22
20 cigarette smoke from the Kent filters published in
21 the Journal of Cancer, is that right, cancer
22 research?

23 A Yes. 11:22

24 Q And that was, what, 25 years ago? 11:22

25 A 1995. 11:22

1 Q There's a gentleman also, a co-author of yours, 11:22
2 William Longo. Was he the owner of MAS?

3 A Yes, sir. 11:22

4 Q And the two of you are friends? 11:22

5 A Yes, yes. 11:22

6 Q Now, in addition to the -- 11:22

7 MR. FINCH: Can I go back to the PowerPoint, 11:22
8 Jon. Eventually I'll catch on.

9 Q In addition to the AIHA, there's something called 11:22
10 the NIST on this slide.

11 A Yes. 11:22

12 Q Could you explain to the jury, what is the NIST and 11:22
13 how does it relate to testing materials for the
14 presence of asbestos?

15 A The NIST is the National Institute of Standards and 11:23
16 Technology in Washington, D.C., and they oversee
17 the program called the NVLAP, you'll see it there
18 on the slide, National Voluntary Laboratory
19 Accreditation Program. And that's for TEM
20 laboratories. They specifically have a program for
21 asbestos testing laboratories that do electron
22 microscopy, TEM, and also optical microscopy, which
23 we'll probably talk about later.

24 So what they do is they oversee these 11:23
25 programs. They have auditors that go out to the

1 laboratories, and they assess the laboratories for
2 conformance to the standards.

3 Q What is an official referee lab for an asbestos 11:23
4 remediation project?

5 A The referee laboratory is one that can oversee 11:23
6 sampling for projects like you see that are listed
7 here. MAS, that laboratory was involved in all of
8 the projects that you see here, all these different
9 states and authorities that were testing for
10 asbestos in their products and many of the
11 buildings in their states.

12 So MAS was a laboratory that did testing for 11:24
13 these programs that you see here, from City of New
14 York, Port Authority of New Jersey, State of
15 Hawaii, Archdiocese of St. Louis, City of Boston,
16 Baltimore, on and on. So MAS was very much
17 involved in all of those programs for many, many
18 years.

19 Q And am I correct that there are basically two 11:24
20 different kinds of -- two big categories of tests
21 you're going to talk about here? One is something
22 called a bulk materials test?

23 A Yes. 11:25

24 Q Explain to the jury what that is. 11:25

25 A A bulk material test is one whereby you're looking 11:25

1 at a material that contains asbestos. Say that it
2 is some kind of an insulation product and it has
3 asbestos in it. You want to know what the
4 percentage of asbestos is. So that insulation is
5 considered a bulk sample. It could be drywall, it
6 could be mastic tape, it could be baby powder, it
7 could be, you know -- it could be anything that's
8 considered a bulk sample.

9 Q Was the crocidolite asbestos filter -- well, the 11:25
10 jury can see it from here. The filter test, is
11 that an example of a bulk analysis?

12 A Yes, yes. 11:25

13 Q When -- were you personally involved in many of 11:25
14 these assignments involving being the referee lab
15 for asbestos remediation projects while you were at
16 MAS?

17 A Yes, yes. 11:26

18 Q Would that typically involve a bulk sample analysis 11:26
19 to determine, you know, how much asbestos was in
20 some building or how much asbestos was in some
21 place or some school?

22 A Yes, sir. 11:26

23 Q Now, is there a second type of test that you're 11:26
24 going to talk about today called an asbestos fiber
25 release test?

1 A Yes. 11:26

2 Q Can you explain to the jury what that is. 11:26

3 A That is a test whereby an asbestos-bearing material 11:26
4 is assessed for how much asbestos can be released
5 from it. For instance, if you have a cement pipe
6 that contains asbestos, a lot of cement pipe did in
7 the past, and you cut into it and you're working
8 around it and you cut into it and create all of
9 that dust, then you can have a release and
10 exposure. So that can be one type of thing.

11 MR. FINCH: Your Honor, we would ask the Court 11:27
12 to recognize Dr. Rigler as an expert in material
13 science for the purpose of doing bulk testing to
14 determine if there is asbestos in a product or
15 material and for fiber release related to asbestos
16 fiber release from a fiber -- from a product or
17 material.

18 THE COURT: Well -- 11:27

19 MR. FINCH: Any objection? 11:27

20 MR. BICKS: You've heard our -- we've argued 11:27
21 this so our position is preserved, I assume.

22 MR. FINCH: We agree that the prior 11:27
23 arguments --

24 THE COURT: But you're objecting now? 11:27

25 MR. BICKS: Yes, Your Honor. 11:27

1 THE COURT: And the Court rules consistent 11:27
2 with its prior order.

3 MR. FINCH: Thank you, Your Honor. 11:27

4 BY MR. FINCH: 11:27

5 Q Dr. Rigler, did we basically ask you to do three 11:27
6 things in this case?

7 A Yes. 11:28

8 Q And first, did we ask you to test Johnson's baby 11:28
9 powder containers from different periods of time to
10 determine whether they had asbestos in them?

11 A Yes. 11:28

12 Q Did, in fact, a majority of the containers have 11:28
13 asbestos in them?

14 A Yes. 11:28

15 Q Did we also ask you to come and explain the various 11:28
16 testing methodologies that both you used and other
17 companies might use that were available over time
18 and to explain what a nondetect means and why there
19 might be nondetects in historical tests?

20 A Yes. 11:28

21 Q And finally, did we ask you to explain to this jury 11:28
22 what were Melody Lewis' exposures to asbestos from
23 Johnson's baby powder and how those exposures
24 compared to background ambient air?

25 A Yes. 11:28

1 Q Just bottom line, what is your opinion about how 11:28
2 her asbestos exposures from baby powder compared to
3 ambient air?

4 A Her exposure compared to ambient air was magnitudes 11:28
5 higher than ambient air.

6 Q First, her exposure to asbestos from baby powder 11:29
7 was orders of magnitude higher than ambient air?

8 A Yes. 11:29

9 Q And what does an order of magnitude mean in 11:29
10 science?

11 A An order of magnitude is a thousand times, so 11:29
12 multiple orders of magnitude can be 2,000, 3,000,
13 10,000.

14 Q Now, we have on this slide a picture of some of the 11:29
15 different scientific instruments that the jury has
16 already heard a little bit about and will probably
17 hear a lot about in this case. Can you explain to
18 the jury what each of these things are.

19 A Sure. 11:29

20 Q And why don't we do that first, then we'll go 11:29
21 through some of how they're used.

22 A Okay. XRD, or x-ray diffraction, is a tool whereby 11:29
23 you take a bulk, a solid sample, or you can take a
24 powdered sample and then you compress it. And then
25 what you do is you put x-ray energy through it, and

1 then it's tilted through the x-ray energy beam, and
2 then there's a detector that tells you how much for
3 a type-specific mineral that could be in there. So
4 that's an x-ray diffractometer. The level of
5 detection can be, you know, about .11 percent,
6 something like that. It sounds pretty low, but as
7 far as trace detection with an x-ray diffraction
8 detector, not so great.

9 The PLM that you see there, as you can see, 11:30
10 it's a microscope. It's called a polarizing light
11 microscope, and that is used also for asbestos
12 analysis and identifying asbestos.

13 There are also the TEM, the transmission 11:30
14 electron microscope, as you see there. It looks
15 small here on the screen, but it would take easily
16 the space that I'm sitting here or where the judge
17 is sitting. That's how large they are. So that's
18 your transmission electron microscope. And it's
19 used -- it is the tool actually for analyzing small
20 particles, such as asbestos fibers.

21 Q You used a term in your answer just now called 11:31
22 sensitivity, the level of detection.

23 A Yes. 11:31

24 Q Could you explain what that means. 11:31

25 A Sensitivity is the instrument's level or the 11:31

1 preparation's level of being able to detect how
2 much is in something. The smaller the amount or
3 the trace level amount, the more either that you
4 need to analyze or the more area you need to look
5 at.

6 So just to give you an idea of sensitivity -- 11:31
7 well, it's always difficult to give the examples,
8 but let it be known that the transmission electron
9 microscope would be the most sensitive for trying
10 to find very, very low levels of asbestos in
11 materials such as powders.

12 Q You got a degree in microbiology and you got your 11:32
13 undergraduate degree in biology?

14 A Yes. 11:32

15 Q I haven't had biology since I was in high school. 11:32
16 I'm not going to say how long ago that was. But I
17 remember looking through microscopes to look for
18 microbes.

19 A Yes. 11:32

20 Q If I wanted to find a microscopic virus or bacteria 11:32
21 on my hand, could I see them with a magnifying
22 glass?

23 A No, not unless they were in big colonies. 11:32

24 Q Could -- if I wanted to look for something that is 11:32
25 as small as an asbestos fiber, could I see it with

1 a magnifying glass?

2 A No. 11:33

3 Q Am I correct, then, that the greater the level of 11:33
4 sensitivity, the more likely it is that you can
5 detect something that's there?

6 A Yes, yes. 11:33

7 Q If I were using a hand magnifying glass looking for 11:33
8 a single microbe on my hand, would I be able to see
9 it?

10 A No, sir. 11:33

11 Q If I did that test 10,000 times in a row, would I 11:33
12 ever be able to see any microbes on my hand?

13 A No, sir. 11:33

14 Q Now, the jury has already heard from a scientist 11:33
15 about the various types of asbestos, from a
16 pathologist. Could you explain from the material
17 science perspective, what is asbestos?

18 A Asbestos is a hydrated magnesium silicate, which 11:33
19 is -- kind of in terms of what you may know, it's
20 very much like the clay that's in the soil out
21 there. One form -- one type of it is similar to
22 what's -- clay minerals. It's in that category
23 called serpentines. The asbestos that is the
24 important type there is an asbestos called
25 chrysotile. You see it up in the upper right-hand

1 corner there in the green. That's what's called a
2 serpentine mineral. And the reason it's called
3 that is because it has a sheet like or a flat
4 structure. This -- chrysotile is actually rolled
5 up in a tube, so it's very much like a soda straw.

6 The other types of asbestos that you see there 11:34
7 are called amphiboles, and they have a structure
8 very much like railroad tracks that lay up on top
9 of each other. So they're very -- they're also
10 layered and they come in layered fibrils. So
11 they're classed anthophyllite,
12 actinolite/tremolite, crocidolite, and amosite.
13 They're all in those -- what was called the
14 amphibole mineral class.

15 Q And can some of the asbestos varieties be 11:35
16 contaminant with other materials?

17 A Absolutely. 11:35

18 Q Which types of asbestos are often found as 11:35
19 contaminants of talc?

20 A It depends upon the mineralogical formations, but 11:35
21 it can be tremolite and actinolite, it also can be
22 anthophyllite, and it can also be chrysotile.

23 Q Can asbestos -- I assume that when you're working 11:35
24 with asbestos in your lab, there are industrial
25 hygiene precautions that people take?

1 A Yes, we work within a safety hood. 11:36

2 Q But can you smell asbestos or see asbestos under 11:36
3 the naked eye?

4 A No. 11:36

5 Q How long does asbestos persist in the environment 11:36
6 if it's there?

7 A Well, it essentially can exist forever. It's sort 11:36
8 of an unbelievably durable material that does not
9 degrade very easily. It takes very, very high heat
10 to degrade it and not very much else.

11 Q How big or how small is an asbestos fiber? 11:36

12 A This is a good demonstration. It shows a penny. 11:36
13 There are rice grains there on the left-hand side.
14 That's rice. There are human hairs around the 1996
15 stamp that you can see there. And then at Abe
16 Lincoln's beard, you can see what appear to be
17 asbestos fibers. These are little, tiny white dots
18 that you see there. And that's actually a pile of
19 asbestos fibers. The estimate there is 20,000
20 fibers, but you can see how small it is.

21 Q Can asbestos fibers be seen with the naked eye even 11:37
22 if you're exposed to a huge quantity?

23 A If they are that small, no. 11:37

24 Q Now, we talked -- we showed the jury pictures of 11:37
25 TEM and PLM.

1 A Yes. 11:37

2 Q How do you use a transmission electron microscope 11:37
3 to test for asbestos in a material?

4 A Well, the beautiful thing about the electron 11:37
5 microscope is it's three tools in one. You can
6 do -- you can look at the structure of the asbestos
7 to see that it's a fiber. You can see that it's a
8 bundle or a group of them clustered together. So
9 that's one way you can tell what it is. You can
10 also measure its size and get what's called an
11 aspect ratio, its length and width, because that's
12 specific for asbestiform asbestos.

13 And No. 2, you can do the chemistry of those 11:38
14 fibers. The electron microscope has attached to it
15 an electron spectrometer which allows you to get a
16 chemical fingerprint of that asbestos.

17 And No. 3, it also allows you to do what's 11:38
18 called electron diffraction. As the electrons go
19 through the asbestos fiber, they break up very much
20 like light goes through a prism. You've seen light
21 break up in a prism and you get different colors.
22 The same thing with electrons when they go through
23 material. They'll break up and they'll make a
24 pattern that is a fingerprint for that material.
25 So it's a beautiful tool for that, three in one.

1 Q Is this a picture of one of the transmission 11:38
2 electron microscopes at the MAS lab that's used to
3 analyze materials to see if there's asbestos
4 present?

5 A Yes, yes, it is. 11:39

6 Q Now, back to another tool for analysis is something 11:39
7 called a scanning electron microscope. What is a
8 scanning electron microscope, and how, if at all,
9 is it used in analyzing materials for asbestos?

10 A The difference between the two, the transmission 11:39
11 electron microscope, the electrons go through the
12 specimen and then you see the image of it on a
13 plate inside a microscope.

14 The scanning electron microscope, the 11:39
15 principles are very much like you and I see here in
16 the courtroom. We see each other because light is
17 bouncing off of us and we can visualize each other.
18 With a scanning electron microscope, when the
19 electrons hit the specimen, they scatter off and
20 there are detectors, and then what you get is what
21 looks like a three-dimensional image. So with the
22 scanning electron microscope, you can see some
23 really super fine details, and we'll see some
24 images of those.

25 Q And finally, there's something called a polarized 11:40

1 light microscope. Is that something that's used in
2 the laboratory to identify asbestos fibers in some
3 circumstances?

4 A Yes. That one is more of a bench size microscope, 11:40
5 very much like you guys probably used in high
6 school work. And what this does is, the
7 mineralogical material, whether it's powder or
8 fibers or whatever, are put in refractive liquids
9 which allows you to look at the different light
10 properties as light bends through the fibers or
11 whatever you're looking at because you can look at
12 it for other kinds of materials.

13 So when you put a polarizer on that, it 11:40
14 changes the light angles, that kind of thing. And
15 as you rotate it, asbestos, different types of
16 asbestos will have different kinds of color
17 characteristics, and you can identify them based on
18 those characteristics.

19 Q Of these three types of tools for analysis, which 11:41
20 is the most sensitive and specific when it's -- for
21 purposes of identifying asbestos in either some
22 kind of material or if you're going into a building
23 or a school for asbestos remediation?

24 A That would be the transmission electron microscope, 11:41
25 yes.

1 Q Why is that? 11:41

2 A Well, for the three reasons that I talked about 11:41
3 before. You can do the chemistry, you can do the
4 form and the shape, and you can do the
5 crystallinity, the electron diffraction. The
6 scanning electron microscope is very good, but you
7 can't do the diffraction work. You can do the
8 chemistry and you can do the morphology. So it
9 would be the transmission electron microscope.

10 Q How long has transmission electron microscope 11:42
11 technology been around?

12 A Oh, gosh. Probably since the 1930s, 1940s. 11:42
13 Scientists, physicists in different laboratories
14 around the world were working on electron physics,
15 if you will, and they came up with the idea that
16 very much like what happens in a light microscope,
17 you use light rays to bend around or to go through
18 something. What if we could use electrons to do
19 that, because the wavelength of an electron is
20 much, much smaller than light, so that would mean
21 you could see many, many -- you could actually see
22 atoms. So with these electron microscopes,
23 especially the newer ones, you can actually see
24 atomic arrangements.

25 Q So what are we looking at here? 11:42

1 A So this one is -- actually the only company in 11:42
2 America that made electron microscopes is RCA. I
3 don't know if any of you are old enough to remember
4 RCA Victor and televisions and all this. Well,
5 they made an electron microscope. This one was
6 vintage 1940s. It's called -- I think this is an
7 EMU2. There was an EMU1. But they -- a lot of
8 early research was done with this kind of
9 microscope. MAS actually has one, and I was
10 involved in a refurbishing project for this. We
11 cobbled a couple of microscopes together to make
12 this one. And it would work if you wired it up.
13 It would actually work.

14 So this is a very basic one, and chemical 11:43
15 companies actually in the '60s started using this
16 to check purity of their powder chemicals. So you
17 could look at the form of it. You could see the
18 image of it. You could also do electron
19 diffraction with these. There weren't electron
20 spectrometers at the time to do chemistry, but you
21 could definitely do diffraction.

22 Q Did you receive certain internal documents of 11:44
23 Johnson & Johnson that were obtained in discovery
24 that related to its -- the tools it used to test
25 its talc for asbestos and what kind of materials

1 and analyses it did?

2 A Yes.

3 MR. FINCH: This is a document, Plaintiffs'
4 Exhibit 181, from the files of Johnson & Johnson.
5 We would offer 181. I believe it's stipulated.

6 MR. BICKS: It's fine.

7 THE COURT: The Court shows Plaintiffs'
8 Exhibit 181 admitted without objection.

9 BY MR. FINCH:

10 Q This is a document from January 3, 1974. Johnson &
11 Johnson writes, "Over the past three years, there
12 seems to have been general agreement that
13 transmission electron microscopy" -- I'm not going
14 to be able to say that word right. I'm just not
15 going to do it -- "is the only absolute proof with
16 electron diffraction for the identification of
17 asbestos in talc."

18 First of all, do you see that, Dr. Rigler?

19 A Yes, sir.

20 Q And you're familiar with this document?

21 A Yes.

22 Q Do you agree that transmission electron microscopy
23 is the best method with electron diffraction for
24 the identification of asbestos in talc?

25 A Yes.

1 Q And it goes on to state, "We have elected to use 11:45
2 outside laboratories since any results generated
3 in-house were suspect. In view of the latest
4 findings at Windsor Minerals, it appears wise that
5 we maintain a closer surveillance on both the ore
6 and finished product on an in-house basis."

7 And is using electron microscope a way to 11:45
8 analyze talc for the detection of asbestos fibers?

9 A Yes, sir. 11:46

10 MR. FINCH: And could I have the ELMO, Jon. 11:46

11 Q It says the approximate cost of a TEM plus 11:46
12 accessories is \$175,000, and this would be in 1974
13 dollars. Am I correct that a TEM is an expensive
14 piece of equipment to operate and maintain?

15 A Yes, sir, yes. 11:46

16 Q Is it something that was available to Johnson & 11:46
17 Johnson to purchase in 1974 or earlier, had it
18 wanted to?

19 A Yes, it was. 11:47

20 Q What are we looking at here? Can you explain to 11:47
21 the jury what we're seeing?

22 A What we're seeing are asbestos structures. These 11:47
23 are very small particles of asbestos. They are
24 bundles and you can see some single fibers there.
25 The one all the way over on the right is called a

1 cluster. As we do asbestos analysis, we have to
2 characterize whether it's a fiber, a bundle, a
3 cluster, a matrix, or a combination. That's all
4 part of the identification rules that have to be
5 documented.

6 Q In the bottom -- well, this isn't going to work 11:47
7 either. But this is a bar here? Can you all see
8 that?

9 A Yes. 11:47

10 Q 0.5, and what does that little symbol mean there? 11:47

11 A That's micrometers. And that -- just to give you 11:48
12 an idea of perspective, that's about half the size
13 of a bacterium. Bacteriums are in the realm of
14 about 1 to 2 microns, micrometers. So you can fit
15 about half of a bacterium on that right there. So
16 that shows you how small they are.

17 Q Now, is there a preparation methodology that you 11:48
18 followed in order to analyze talc for the presence
19 of asbestos?

20 A Yes. 11:48

21 Q Could you describe what that preparation method is 11:48
22 generally first, and then I'll have you explain why
23 you did that.

24 A All right. The preparation methodology is called 11:48
25 heavy liquid separation, and what that is is a --

1 it's based on separating talc and asbestos. The
2 density of talc is in the range of about 2.85 grams
3 per cc, I believe it is. So the density for the
4 amphibole asbestos -- if you'll remember, we've got
5 the group of amphiboles and we have the single
6 serpentine type -- is in the range of around
7 3 grams per cc. That's important because you're
8 going to put them in a liquid that has a density
9 that is different from them, which means they are
10 either going to float or they're going to go to the
11 bottom.

12 And the issue with talc is there is a lot of 11:49
13 it. If you're looking for trace levels of asbestos
14 in that, you've got to separate them, get them
15 separated. So this is why we do this.

16 Q Is there peer-reviewed scientific literature that 11:49
17 discusses the heavy liquid separation method?

18 A Yes, there are a couple of them, yes. 11:50

19 Q Are you familiar with this paper published by a 11:50
20 scientist named A.M. Blount in 1991 called
21 "Amphibole content of cosmetic and pharmaceutical
22 talcs"?

23 A Yes. 11:50

24 Q Does this paper lay out her methodology for 11:50
25 preparing the talc samples in order to analyze them

1 for the detection of asbestos content?

2 A Yes, sir. 11:50

3 Q She reports publicly in the paper what she finds 11:50
4 when she did that?

5 A Yes. 11:50

6 Q Does she -- in this publicly available paper, does 11:50
7 the paper state what the sources -- which sources
8 of talc were contaminated with asbestos?

9 A I'd have to look at the paper again, but I don't 11:50
10 believe it identifies them specifically.

11 Q It doesn't name the products, for example? 11:50

12 A I don't think so. 11:50

13 Q Now, is the heavy liquid separation method also 11:51
14 part of an International Standards Organization
15 method for detecting asbestos in materials?

16 A Yes. This is a standard method which takes that 11:51
17 procedure that we just talked about and outlines
18 exactly how to do that, very much like Dr. Blount's
19 protocol and procedure, and this is an
20 international standard that was used.

21 Q And I showed you the cover page. Let's make it a 11:51
22 little bigger and hopefully the jury and I can both
23 see it. It says the International Standards
24 Organization "is a worldwide federation of national
25 standards bodies (ISO member bodies)."

1 So ISO is the organization that put out this 11:51
2 standard to do this; is that right?

3 A Yes, sir, yes. 11:51

4 Q And the date, you all may not be able to see the 11:51
5 date. But can you read the date this was
6 published?

7 A 2014. 11:52

8 Q Is ISO 2226-2 the international standard that 11:52
9 specifies the procedure for analyzing talc for --
10 to determine if asbestos is in it?

11 A Yes. It describes procedures for separating 11:52
12 asbestos from a number of different kinds of
13 materials that you see there. Talc is highlighted.
14 So it's used specifically for that.

15 Q And another material is vermiculite. Do you see 11:52
16 that?

17 A Yes. 11:52

18 Q Was vermiculite insulation contaminated with 11:52
19 asbestos something that was used in the World Trade
20 Center?

21 A Yes. 11:52

22 Q Is this methodology recommended for detecting trace 11:52
23 or subtrace levels of asbestos in vermiculite as
24 well as talc?

25 A Yes, sir. 11:52

1 Q When I say trace or subtrace, does that necessarily 11:52
2 mean that there could not be a high exposure to
3 asbestos from a product that has a trace or
4 subtrace level of asbestos in it?

5 A Right. Even though it says trace, you have to 11:53
6 remember that like the penny, where you saw the
7 20,000 fibers on that little tiny space, when you
8 say trace in a material, let's say it's trace
9 asbestos, .1 percent or something like that, when
10 it's thrown up in the air, when it gets airborne,
11 trace doesn't mean a whole lot when it comes to
12 exposure. You can still be exposed to a
13 significant amount of it simply because there are
14 so many asbestos structures.

15 Q And does ISO International Standard 22262-2 talk 11:53
16 specifically about using this methodology on
17 cosmetic talc to detect asbestos in it?

18 A Yes. You see here that it does. That's 11:54
19 specifically from the method, yes.

20 Q Let's go through the columns just so I can 11:54
21 understand what we're looking at here. So it's
22 talking about talc asbestos content depends on
23 deposits, and then it gives examples of materials
24 in which talc is found; is that right?

25 A Yes. 11:54

1 Q Including cosmetics? 11:54

2 A Yes. 11:54

3 Q And then what is the third column there? 11:54

4 A That talks about the kinds of asbestos that can be 11:54
5 separated with the technique.

6 Q And then it says, under -- "For amphibole, either 11:54
7 centrifugation in heavy liquid, followed by
8 evaluation by microscopy, or preparation of TEM
9 from the untreated material is the optimum
10 procedure, followed by examination using the mass
11 counting procedure."

12 What are we talking about there? 11:54

13 A It says that this -- that heavy liquid is the 11:55
14 optimal procedure for doing this, and then you use
15 the transmission electron microscope for also
16 examining the amount of material that's there. So
17 it says this is the best way to do it.

18 Q And why isn't this the optimal way to look for 11:55
19 chrysotile in talc or vermiculite?

20 A I'm glad you asked me that. I started to talk 11:55
21 about densities. Chrysotile has a density of
22 around 2 -- 2.8, somewhere in that range, and the
23 liquids that you use to do the separations, that
24 chrysotile is in that same sort of density range as
25 talc is. So it's very difficult to separate

1 chrysotile with this method. Don't get me wrong,
2 the scientists will keep on digging until we can
3 find how to get it done and get it separated.
4 But -- and it can be done with this methodology.

5 But chrysotile is a big challenge. It could 11:55
6 be there. You've done the method. You've found
7 the amphiboles types. Chrysotile is still there
8 because it's harder. You haven't separated it yet.
9 So that doesn't mean chrysotile is not there if you
10 run the procedure.

11 Q Now, Dr. Blount published in this peer-review 11:56
12 literature the heavy liquid concentration technique
13 in 1991, and this International Standards
14 Organization ISO 22262-2 was 2014. Have you seen
15 documents from the files of Johnson & Johnson that
16 showed that this type of methodology, this type of
17 preparation technique was being used by some of its
18 outside consultants in the '70s?

19 A Yes. 11:56

20 MR. FINCH: Your Honor, this is Exhibit P-358, 11:56
21 which I believe is stipulated admissible.

22 MR. BICKS: No objection. 11:56

23 THE COURT: The Court shows Plaintiffs' 11:56
24 Exhibit 358 admitted without objection.

25 BY MR. FINCH: 11:56

1 Q So this is a document -- 11:57

2 MR. FINCH: May I have the ELMO just for a 11:57
3 second, Jon.

4 Q This Plaintiffs' Exhibit 358 is a confidential 11:57
5 document dated March 1974 to Windsor Minerals,
6 Windsor, Vermont.

7 Do you understand that Windsor Minerals is the 11:57
8 subsidiary that owned the talc mines owned by
9 Johnson & Johnson?

10 A Yes, sir. 11:57

11 Q And it's from somebody named R.C. Reynolds at the 11:57
12 Department of Earth Science in Dartmouth, New
13 Hampshire?

14 A Dartmouth College, yes. 11:57

15 Q Right, Dartmouth College. 11:57

16 Analysis of talc products and ores for 11:57
17 asbestiform amphiboles; right?

18 A Yes, sir. 11:58

19 Q Does this memorandum describe -- 11:58

20 MR. FINCH: Maybe I'll go back to the 11:58
21 PowerPoint, Jon.

22 Q -- this heavy liquid concentration technique as a 11:58
23 way to optimize the ability to identify asbestos in
24 talc?

25 A Yes. They knew about that. They were working on a 11:58

1 method for that and said, yes, that's a great way
2 to do it.

3 Q What they -- what the Dartmouth people say is, "For 11:58
4 the reasons described above, a concentration
5 technique is mandatory because it brings the
6 amphiboles into a reasonable concentration range
7 for optical or other methods of analysis. Such a
8 method has been developed, and it's described in
9 this report."

10 And the report goes on for something like 25, 11:58
11 30 pages, right, Dr. Rigler?

12 A Yes, yes. 11:58

13 Q Do they actually show an example of the tool used 11:58
14 to separate out the talc from the heavier
15 materials?

16 A Yes. 11:59

17 Q What are we looking at here? 11:59

18 A What they have is a test tube that has -- it's been 11:59
19 filled with the heavy liquid material and mixed --
20 they mix the talc in with it. So here they're
21 actually putting it together and they mix it up,
22 and then they put it into a centrifuge. And then
23 when they apply the centrifugal force to it, the
24 talc and the amphibole asbestos, because the
25 densities are different, will separate. The talc's

1 going to go to the top. The heavy amphibole
2 asbestos is going to go to the bottom. So that's
3 what they're showing here.

4 Q And on page 7 of the document, do they describe -- 11:59
5 well, let me back up.

6 What are we looking at on the right here 12:00
7 versus what are we looking at on the left?

8 A On the right is a small centrifuge, a test tube 12:00
9 that is used at the laboratory, our laboratory,
10 MAS's laboratory, to do the same exact kind of
11 separation, whereby you put the talc mixed with the
12 heavy density fluid into the centrifuge. In this
13 case it's a small centrifuge tube, and then you
14 centrifuge it at high speed, and then you recover
15 the heavy asbestos from the bottom of the tube and
16 the talc goes to the top.

17 Q And the picture from the Dartmouth document is 12:00
18 here.

19 A Yes. 12:00

20 Q And on the right, that's just a picture of a test 12:00
21 tube used at the lab you were with?

22 A Yes. 12:00

23 Q And then you stick it into some kind of centrifuge 12:00
24 machine?

25 A Yes, sir. 12:00

1 Q And then that spins really fast? 12:00

2 A Yes. 12:00

3 Q And it separates out the heavy stuff from the 12:00
4 lighter stuff -- or the denser stuff from the less
5 dense stuff?

6 A Correct. 12:00

7 Q And in this Exhibit 358, do they describe both what 12:00
8 they used as the heavy liquid for the centrifugal
9 separation of fiber form amphiboles from talc as
10 well as what they found?

11 A Yes, yes, they did. 12:01

12 Q Could you just read that for us. 12:01

13 A Yes, sir. "Mixtures of bromoform, methyl iodide, 12:01
14 and benzethonium chloride monohydrate provide a
15 suitable heavy liquid for the centrifugal
16 separation fiber form amphiboles from talc."

17 Q And they write, "The ore sample contains 2300 ppm 12:01
18 actinolite, and the talc product contains
19 approximately 170 ppm actinolite."

20 And what is 170 ppm in percentages? 12:01

21 A The 170 ppm is about .1 percent. 12:01

22 Q .017 percent? 12:01

23 A Yes, excuse me, .017 percent. 12:01

24 Q And do they go on to write that "Actinolite is the 12:02
25 dominant fiber form amphibole in the ore and the

1 talc product provided by Windsor Minerals. Small
2 amounts of anthophyllite may be present"?

3 A Yes. 12:02

4 Q What does it mean when some -- a document says, 12:02
5 "fiber form amphibole" in the scientific
6 literature?

7 A They're talking about the fact that it is fibrous 12:02
8 and it meets the definition of an asbestiform
9 asbestos type.

10 Q And in this same document, do -- unfortunately, we 12:02
11 only have the -- do they have a picture of what --
12 the asbestos fibers that they identified?

13 A Yes. They're showing in that picture, the red 12:02
14 circle, they're pointing to the long fiber there
15 that's an anthophyllite fiber and the shorter,
16 thicker, fatter fiber is called actinolite. And
17 they're both in that preparation of talc that was
18 from this mine.

19 Q This is in Plaintiffs' Exhibit 358, Plate 7, and 12:03
20 the Bates label at the end is 29429? I don't know
21 if that's -- it is on the bottom of the screen.

22 A Yes. 12:03

23 Q Is that correct? 12:03

24 Are you familiar with the Ontario Department 12:03
25 of Mines' asbestos identification protocol relating

1 to mineralogy of asbestos?

2 A Yes.

12:03

3 Q Could you explain to the jury what that is.

12:03

4 A This is a definition of asbestos that has in its
5 defining terms as being a substance that has
6 flexibility, tensile strength is usually high,
7 tensile strength is what they'll say, and the
8 asbestiform growth habit.

12:03

9 Q Is there any way on a microscopic level to detect
10 for flexibility or tensile strength?

12:04

11 A No. Unfortunately, this is part of the definition
12 for the bulk or the larger form of it. If you have
13 a big piece of asbestos in your hand and it has
14 asbestos fibers sticking out of it, you could apply
15 that to that kind of sample. But when you get down
16 to the level of the electron microscope where you
17 have these tiny fibers that float around and you
18 breathe in, those, as far as doing tensile strength
19 test, you can't do that. So yeah.

12:04

20 Q What about asbestiform growth habit, what's that?

12:04

21 A Well, that is describing that it is in a fibrous
22 form and that it grows from what they call a
23 crystalline fibrous kind of habit.

12:04

24 Q And can you tell at a microscopic level what habit
25 a 5-micron long asbestos fiber came from?

12:05

1 A Yes. Usually it will have parallel sides, the 12:05
2 structure will. You'll also be able to see
3 individual fibers in these, what they call bundles.
4 And so you can see the individual fibers, and
5 that's called an asbestiform habit.

6 It'll also have a specific length-to-width 12:05
7 ratio, what they call an aspect ratio, and that's
8 important because the regulatory agencies say that
9 it needs to be at least three-to-one aspect ratio,
10 that is three times longer than it is wide or five
11 times longer than it is wide. And that depends
12 upon the agency. So that's important.

13 Q For purposes of a regulated asbestos fiber, and by 12:05
14 that I mean if you find it in the environment,
15 whether you call it asbestos or not, has the United
16 States EPA put out rules for how you identify
17 asbestos as compared to something else?

18 A Yes. 12:06

19 Q We're looking at something called the EPA/AHERA. 12:06
20 What is the EPA/AHERA methodology and can you just
21 describe how it plays into defining asbestos in the
22 environment or asbestos in the building or
23 something.

24 A Okay. The AHERA stands for Asbestos Hazardous 12:06
25 Emergency Relief Act, and this was a regulation

1 that came about in the '80s simply because we
2 discovered asbestos was very bad and that there was
3 quite a bit of it in schools around the country.
4 So the edict was to get it out of the schools;
5 thus, the act itself.

6 And in that document are descriptions for the
7 analysis of asbestos in bulk materials and also in
8 air samples. So when you're clearing -- when you
9 actually take it out, you have to check and see
10 that there isn't any asbestos fibers in the air
11 once you do that too.

12 So the act describes the procedures for the
13 analysis, and it uses transmission electron
14 microscopy and the steps that we talked about
15 earlier on looking at the shape and form of the
16 asbestos, the chemistry of the asbestos, and also
17 the crystallinity of diffraction pattern. So
18 that's --

19 Q Is that the three-step method you're talking about
20 here?

21 A Yes.

22 MR. FINCH: Your Honor, we're getting ready to
23 change topics and go into more detail on this.
24 Would this be an appropriate time for the lunch
25 break?

12:06

12:07

12:07

12:07

12:07

1 THE COURT: Yes, we can do that. 12:07

2 Before we leave, another admonishment. We're 12:07
3 going to take a lunch break now. Please be back
4 at -- let's see, it's ten after 12. Why don't we
5 make it 1:15.

6 I have told you not to talk about the case and 12:08
7 to keep an open mind concerning it. You're not to
8 discuss the case or the evidence in the case with
9 anyone else, and you are not to permit anyone else
10 to talk to you or in your presence on any subject
11 or matter connected with this trial.

12 It is your duty to keep an open mind about the 12:08
13 case until it is submitted to you for deliberation.
14 Furthermore, during a recess, you should not talk
15 to any of the attorneys, their staff, any witnesses
16 about anything, not even to pass the time of day.
17 You must be and appear to be impartial at all
18 times.

19 In addition, jurors are not allowed to read 12:08
20 anything concerning any of the parties or products
21 in this case. This includes simply reading the
22 paper, listening to the radio, or internet
23 articles. Also, you may not Google anything
24 concerning the parties or products involved in this
25 case on your phone. You must be and appear to be

1 impartial at all times.

2 Lastly, the Indiana Code of Judicial Conduct 12:09
3 prohibits broadcasting, televising, recording, or
4 taking photographs in a courtroom and areas
5 immediately adjacent during sessions of court or
6 during any recesses of the trial.

7 With these admonishments, you are released for 12:09
8 lunch. Thank you.

9 THE BAILIFF: All rise. 12:09

10 (Whereupon, the jury exited the courtroom.) 12:09

11 THE COURT: All right. Thank you. 12:09

12 (A lunch recess was taken.) 12:09

13 THE COURT: We're on the record, so we can 13:16
14 begin. This is argument concerning Plaintiffs'
15 offer to enter into evidence a Johnson & Johnson
16 Consumer, Inc., notice to voluntarily recall a
17 single lot of Johnson's baby powder in the United
18 States.

19 MR. BICKS: Your Honor, can I just -- before 13:18
20 we do this, should the witness be in here when
21 we're having the argument?

22 THE COURT: Oh, certainly -- I mean certainly 13:18
23 not. So sir, if you could please -- and you're
24 welcome to step into the court office, and they can
25 show you to one of the hearing rooms if you'd like

1 a seat.

2 THE WITNESS: Thank you. 13:19

3 THE COURT: And just tell them that I said to 13:19
4 let you in.

5 THE WITNESS: Thank you. 13:19

6 MR. FINCH: May it please the Court, Your 13:19
7 Honor. Plaintiffs' Exhibit 4 is a document that
8 just was created by Johnson & Johnson approximately
9 8 a.m. this morning. It is an admission of a party
10 opponent. It is -- I believe there's no dispute
11 about its authenticity. Mr. Bicks alerted me to
12 its existence this morning.

13 From the outset of this case, the testing 13:19
14 methodology and adequacy of the testing methodology
15 to detect asbestos in talc is a central dispute
16 between the parties.

17 Jon, do you have the opening? I was going to 13:19
18 put it up on the screen, but in yesterday's opening
19 statement, Mr. Bicks says, "The FDA also tested
20 Johnson & Johnson's talc in China. This isn't
21 Johnson & Johnson's testing. This is the FDA.
22 From time to time they've tested Johnson &
23 Johnson's talc. They went and hired an independent
24 laboratory to do it. These are the test results.
25 At the end of the day, there is no asbestos

1 detected in any Johnson & Johnson's product, no
2 asbestos detected in the mines that Johnson &
3 Johnson was using. They tested the source mine.
4 They tested the finished product. This is what the
5 FDA did."

6 Now we find out that sometime prior to this 13:20
7 morning, the FDA told Johnson & Johnson that it
8 indicated subtrace levels of chrysotile asbestos
9 contamination in Johnson's baby powder. This is
10 the China mine. And while I don't contend that
11 Melody Lewis used this particular bottle of baby
12 powder, I do -- there is evidence in the record she
13 continued using Johnson's baby powder up through
14 the year 2018. And while that may not have been
15 the exposure that contributed to her cancer, the
16 dispute between the experts as to the adequacy of
17 the testing and whether there's ever been asbestos
18 detected in Johnson & Johnson and whether the
19 limitations of the test methodology followed by the
20 FDA and Johnson & Johnson are sufficiently
21 sensitive has been an issue throughout this case.

22 So -- and furthermore, we have not had the 13:21
23 opportunity for discovery about this document.
24 Obviously we couldn't have added it to our exhibit
25 list until right now because it didn't exist until

1 right now.

2 I find it astonishing that a lawyer for 13:21
3 Johnson & Johnson could stand up in open court and
4 say the FDA has repeatedly tested our products,
5 including our China mines, which is the mines
6 they've been using since 2003, and they've never
7 detected any asbestos.

8 I find it hard to believe that -- this is a 13:22
9 press release issued by the company. I find it
10 hard to believe that Johnson & Johnson was not
11 aware of the results of this FDA test prior to
12 yesterday. It's not like -- it's not like the FDA
13 will notify Johnson & Johnson at 6 a.m. this
14 morning and Johnson & Johnson will put out a press
15 release at 8 a.m. That just can't possibly happen.

16 If you look at the end of the document, it's 13:22
17 got all the boilerplates, note to investors
18 concerning forward-looking statements. I've done a
19 fair amount of securities litigation in my life,
20 Your Honor, and nothing goes out in a press release
21 without corporate lawyers looking at it six ways
22 from Sunday. So clearly Johnson & Johnson's
23 corporate lawyers had advance notice this was
24 coming before Mr. Bicks stood up and made his
25 representations to this jury in open court.

1 So either one of two things has happened. 13:23
2 Either Mr. Bicks, knowing the FDA had told
3 Johnson & Johnson of this positive test result,
4 nonetheless said what he said, or perhaps much more
5 likely, Johnson & Johnson did not notify Mr. Bicks
6 about this positive test result.

7 Either way, it's an admission of the party 13:23
8 opponent. It's relevant to the issues of the case.
9 It's connected to an exhibit that Johnson & Johnson
10 added to its exhibit list just last week. They had
11 a letter from the FDA in September of 2019 that
12 said, in effect, although the results of testing
13 are preliminary, we're still looking at it, we
14 don't think there's any asbestos in the baby powder
15 we're testing.

16 Your Honor entered an order allowing them to 13:23
17 add a September 2019 document from the FDA to their
18 exhibit list. Apparently they had a document from
19 the FDA that was a communication from the FDA.
20 We've been on the website of the FDA all morning
21 and couldn't find whatever it is the FDA gave to
22 Johnson & Johnson.

23 But I think under any analysis, this meets all 13:24
24 four tests for admissibility. It's an authentic
25 document. It is a statement against interest and

1 an admission of a party opponent. It's clearly
2 relevant to the issues in this case. And I think
3 the fact that we didn't have it on our exhibit list
4 last week is excused by the fact that it didn't
5 exist until this morning. This is like, if a
6 lawyer stands up in opening statement in a car
7 wreck case and says, the brakes were totally fine,
8 and then it turns out that a mechanic's report is
9 in the files of his client and somehow it gets
10 turned over to the plaintiff the very next morning,
11 it would obviously be admissible in that context.

12 So for all those reasons, Your Honor, we would 13:24
13 respectfully request, A, to be able to amend our
14 exhibit list to add Plaintiffs' Exhibit 4 to it;
15 and B, to offer this document into evidence so that
16 the jury can see it as part of the evidence of this
17 case, and there would be absolutely no possibility
18 of any kind of a mistrial because somebody might
19 have seen something about it in the press or
20 anything like that.

21 THE COURT: And Mr. Bicks. 13:25

22 MR. EATON: Your Honor, Joe Eaton. 13:25

23 THE COURT: I'm sorry, Mr. Eaton. 13:25

24 MR. EATON: I'm going to help Mr. Bicks out 13:25
25 with this one.

1 So Your Honor, first, we too just got notice 13:25
2 of this press release this morning. And instead of
3 rushing to judgment on this issue, we would ask
4 that the Court allow the parties to brief this
5 issue, file a motion in limine. In particular,
6 there's a couple other legal issues.

7 They've argued it's an admission of a party 13:25
8 opponent. But under 407, this is clearly a
9 subsequent remedial measure. They're trying to use
10 it to prove negligence. They talked about culpable
11 conduct and our testing methods. They're trying to
12 use it show that a warning or a different warning
13 should have been given, all precluded by Rule 407.
14 There's ample case law, Indiana State Court,
15 Seventh Circuit, Southern District of Indiana,
16 excluding a voluntary recall just like in this
17 instance that's issued years and years after the
18 initial -- certainly the initial alleged exposure.
19 The issue about 2018, I don't think there's any
20 testimony by Melody Lewis that she bought her
21 Johnson's baby powder online. The issue on the
22 recall is one limited lot that was purchased from
23 an online retailer.

24 So several issues, I think, that we should 13:26
25 have ample time, Your Honor, to brief the issue to

1 bring those to you, because they're inviting error
2 here because --

3 THE COURT: Now, when you say "ample time," 13:26
4 what are you thinking of?

5 MR. EATON: We'll file a brief tomorrow, and 13:26
6 we can argue it at the break of Hopkins on Monday.
7 We can file -- they can file their response Monday.
8 Dr. Rigler's coming back Tuesday, so the rush here
9 to get this in today, on Friday afternoon, with
10 Rigler doesn't seem warranted in this instance.

11 This is a press release that came out at 8:38 13:27
12 this morning. And there was a discussion,
13 Mr. Bicks disclosed to the Court about the
14 existence of the recall, disclosed it to
15 plaintiffs' counsel. There were some discussions
16 that they wouldn't use it. And so now that they
17 want to use it with Rigler, we'd just like the
18 opportunity to brief this, because I think they're
19 inviting the error here, Your Honor, because it's
20 clearly inadmissible under 407. And we can brief
21 the issues on whether it's an admission of a party
22 opponent.

23 MR. FINCH: May I be heard on the 407 issue? 13:27
24 Rule 407, subsequent remedial measures, when
25 measures are taken that would have been made an

1 earlier injury or harm less likely to occur,
2 evidence of the subsequent measures is not
3 admissible to prove negligence, culpable conduct,
4 design defect, or a need for a warning or
5 instruction. We're not offering it for any of
6 those reasons.

7 Rule 407 goes on to say, "The Court may admit 13:28
8 this evidence for another purpose, such as
9 impeachment."

10 It is impeaching, A, to their testing expert. 13:28
11 It's impeaching to the company. The company has
12 taken the position that there have never, ever been
13 any asbestos fiber ever. No. 3, it is not the
14 recall that we seek to admit. It's the fact that
15 the FDA told Johnson & Johnson and Johnson &
16 Johnson admitted that there was chrysotile asbestos
17 in the baby powder.

18 And furthermore, Your Honor, if we wait until 13:28
19 Monday, I -- there are few certainties in life, but
20 I suspect the first thing we'll be hit with Monday
21 morning is a motion for mistrial because the
22 possibility the jurors may have seen something
23 about this on the news or over the weekend just
24 because it's going to pop up on, you know --
25 they're watching football and there's something

1 about Johnson & Johnson. They can't turn the
2 channel fast enough. If this becomes evidence in
3 this case, then it can't possibly create a mistrial
4 situation.

5 So for all those reasons, Your Honor, I think 13:29
6 it is proper to admit the document now, allow us to
7 publish it to the jury now, and to then continue on
8 with Dr. Rigler's testimony. And I won't ask
9 Dr. Rigler any questions about this.

10 THE COURT: So you're saying you want to offer 13:29
11 it for purposes of impeachment so that you can
12 question the witness as to the FDA's knowledge and
13 their reporting?

14 MR. FINCH: No, as to Johnson & Johnson's -- 13:29
15 it impeaches Johnson & Johnson's credibility, it
16 impeaches Johnson & Johnson's testing methods, and
17 it impeaches the FDA's testing methods in the sense
18 that the FDA has said that, up to now, it has not
19 found asbestos in baby powder but now apparently
20 it's using more sensitive techniques and it has.
21 So I think --

22 THE COURT: So you want to use it when 13:30
23 Johnson & Johnson begins putting their witnesses
24 on?

25 MR. FINCH: I want to cross-examine their 13:30

1 witnesses, and I haven't thought through, how could
2 Dr. Rigler have put this as part of his reliance
3 materials if it didn't exist before today.

4 THE COURT: So you don't intend to use it 13:30
5 today?

6 MR. FINCH: I don't intend to use it today, 13:30
7 but I do intend to publish it to the jury today.
8 We don't have to have any expert testimony about
9 it, but I do intend to publish it to the jury right
10 after lunch and then continue with Dr. Rigler.

11 MR. EATON: Your Honor, it's true that 13:30
12 impeachment is an exception to Rule 407 and the
13 admissibility of subsequent remedial measures.
14 This isn't a witness for Johnson & Johnson. If
15 they want to cross the J & J witness, the first one
16 to testify now through the reordered schedule is
17 Dr. Sanchez on Thursday. We still think that it's
18 inadmissible even for those purposes, but if there
19 is an exception under 407 --

20 THE COURT: Inadmissible for purpose of 13:30
21 impeachment?

22 MR. EATON: Potentially, yes, because of the 13:30
23 prejudicial impact. But if it is admissible or if
24 it can be used, it can only be used for
25 impeachment, and that is of a witness proffered by

1 J & J, not an expert for the plaintiff.

2 THE COURT: Which we're not there yet. But 13:31
3 the other concern, it sounds like, from plaintiffs
4 is the possibility of mistrial if this would -- how
5 this might impact the jury over the weekend.

6 So can you address that, please. 13:31

7 MR. EATON: Your Honor, you've admonished the 13:31
8 jury every day. There's information about lawsuits
9 all over the place on the web. So you've
10 admonished them, and we're assuming that they're
11 following your admonishment not to -- you said
12 don't watch TV, don't use social media, and we're
13 expecting the jury to abide by your admonishment
14 and your regulations. We've done that since the
15 beginning of jury selection. And there's lots of
16 things out there that the jury could Google. So we
17 think that admonishment should carry over for the
18 weekend.

19 MR. BICKS: And also, it's not an argument. 13:31
20 The arguments against admission of this have
21 already been made and are well-founded. It's not a
22 rationale to ignore the rules of evidence because
23 it could avoid a mistrial, because allowing
24 something in, that shouldn't be allowed in, is
25 going to create error. So that's -- I don't know

1 the rationale, let's do something that we shouldn't
2 do because there's a possibility of media
3 attention, I don't think is a persuasive rationale.

4 MR. FINCH: Your Honor, this is no different 13:32
5 than if a company published an admission on its --
6 if it published -- if this happened a month and a
7 half ago, it would clearly be on our exhibit list.
8 It would clearly be admissible, just like the
9 letter that Johnson & Johnson has from the FDA is
10 admissible, because it -- it's like a piece of
11 literature in the scientific regime if it comes out
12 a few days before trial.

13 I mean, one of the debates is, today, based on 13:32
14 what we know today, can asbestos cause
15 mesothelioma. Based on what we know today, can
16 asbestos from talc cause mesothelioma. Based on
17 what we know today, can asbestos be detected in
18 Johnson's baby powder. That's a central dispute
19 between the parties.

20 And their position is the FDA has repeatedly 13:33
21 tested our product and never, never, ever found any
22 asbestos. When Mr. Bicks stood up in court and
23 said that yesterday, either he was not telling the
24 truth to this jury or Johnson & Johnson hadn't told
25 him the results of this. I don't know which to

1 believe.

2 But I think this is highly relevant. I don't 13:33
3 think Rule 407 has anything to do with the
4 admissibility of the document. We're not
5 talking -- if you want to redact the words
6 "voluntary recall," instead the only portion of the
7 document would say, "United States, a single lot of
8 its Johnson's baby powder in response to a Food &
9 Drug Administration test indicating the presence of
10 subtrace levels of chrysotile asbestos
11 contamination in samples from a single bottle
12 purchased from an online retailer."

13 I mean, that's really what we want the jury to 13:33
14 see, is the Johnson & Johnson logo and
15 New Brunswick, New Jersey, and then "in response to
16 a U.S. Food & Drug Administration test indicating
17 the presence of subtrace levels of chrysotile
18 asbestos contamination, no greater than point bunch
19 of zeros 2 percent in samples from a single bottle
20 purchased from an online retailer." Everything
21 else, if there's any concern about Rule 407, we
22 could redact out of the document.

23 MR. BICKS: Just -- the one point that he's -- 13:34
24 we're making predictions about things that may have
25 happened. Our responsibility is to bring things to

1 the Court's attention, which is why I did it this
2 morning. The letter that got on our exhibit list
3 we put on as soon as we got it. We haven't even
4 used it yet. And I didn't use it in opening
5 statement.

6 If it turns out that when Dr. Sanchez or in 13:34
7 some event I come out and say, oh, we just got a
8 letter from the FDA, you know, two weeks ago, which
9 we did, that said they had done testing and they
10 didn't see anything, then it's a different
11 situation. But we haven't even done that yet. I
12 didn't introduce any of that. We haven't even
13 gotten to our case, and I didn't say anything about
14 it.

15 So I think the prudent course here is to just 13:35
16 have this laid out legally and then when it's in
17 our case, if we raise something that implicates
18 this, then we deal with it. But I can tell you, in
19 looking at this, and knowing this area, Your Honor
20 has seen a lot of information so far about test
21 results which are later not validated because of
22 contamination issues. And even their expert,
23 nobody on their side has found chrysotile in
24 Chinese talc. Their expert, over 90 samples
25 tested, and nobody is saying this. They're not

1 even maintaining in this case that this type of
2 asbestos is in Chinese talc, which makes this even
3 more questionable reliability, which is one of the
4 reasons people are examining this right now.

5 And I would also add that the comments were 13:36
6 made in the opening by Mr. Finch in essence that
7 what happened in China is irrelevant to the case.
8 And I believe, because they offered expert
9 testimony by Dr. Brody that said exposures going
10 back 10 to 15 years from the date of the diagnosis
11 are not relevant to the disease.

12 And so he's made at least two statements on 13:36
13 the record now in essence saying to the jury that
14 Chinese talc really doesn't have anything to do
15 with the case. And I've seen that now back in our
16 office before I came over here. So now pivoting
17 and now saying a test that's done after diagnosis
18 and after the plaintiff stopped using the product
19 of one sample online, that people are now
20 investigating the reliability of it, is going
21 pretty far afield here.

22 MR. EATON: And Your Honor, the rush here, 13:37
23 we'll -- I'm speaking for others back at the
24 office. We will agree to file our brief by 6 p.m.
25 We will e-mail it to plaintiffs. They'll have it.

1 They can respond. And we can address this first
2 thing -- obviously it's not an issue for Hopkins
3 Monday, so we can have argument Monday. The rush
4 here is part of the concern about inviting error
5 with a document like this.

6 MR. FINCH: May I be heard? 13:37

7 THE COURT: And concluding remarks from 13:37
8 Mr. Finch.

9 MR. FINCH: Yes, Your Honor. As to -- a 13:37
10 document or a thing can be admissible for more than
11 one purpose. I'm not contending that this lot of
12 Johnson's baby powder caused or contributed to
13 Melody Lewis' mesothelioma. What I am contending
14 is Johnson & Johnson has taken the position and has
15 in opening and in documents already in this case,
16 that its testing methods are good enough to detect
17 any level of asbestos and asbestos would never,
18 ever, ever get through. They're going to hear that
19 from Hopkins in his testimony that we've tested
20 this stuff. You heard it in some of the
21 cross-examination of our witnesses, that there was
22 testing done and that Johnson & Johnson's position
23 is, our testing is so good, there could never be
24 asbestos get through, ever.

25 And this impeaches that, Your Honor. So 13:38

1 that's why it's relevant, and it's relevant all the
2 way back to the beginning of time for whenever
3 Johnson & Johnson started testing.

4 As to his response that chrysotile is not 13:38
5 detected in Chinese talc, as Dr. Rigler explained
6 this morning, using the heavy liquid density
7 separation techniques, you look for amphiboles.
8 They haven't been able to develop that to look for
9 chrysotile. So the fact that they found this in
10 Chinese -- found some chrysotile without apparently
11 using that technique is evidence that there is
12 asbestos contamination in talc and that Johnson &
13 Johnson's testing methods are not sufficiently
14 adequate to prevent that.

15 So I think for all those reasons -- and 13:39
16 finally, Your Honor, you can't close your eyes to
17 the real world. People -- anybody who has a
18 Twitter account, even if they're not looking, if
19 they're not actively looking for anything about
20 Johnson & Johnson -- I believe the jury will follow
21 Your Honor's instructions. I am -- I am concerned
22 that we will be hit with a mistrial motion first
23 thing Monday morning because they will say, this
24 was on Twitter, this was on CNN Alerts, this was on
25 this, this was on that. And I have no doubt that

1 our jury will not go out and seek any information,
2 and I have no doubt as soon as they see anything
3 like that, they won't look at it. But this is an
4 admission of a party opponent that is clearly
5 relevant under all the bases for admission against
6 a party opponent, doesn't violate Rule 407, and we
7 would like to read the sentence out of it once the
8 jury comes back.

9 THE COURT: You'd like to read the sentence?

13:39

10 MR. FINCH: The sentence that would have 13:39
11 Johnson & Johnson's letterhead, the New Brunswick,
12 New Jersey, October 2019, "In response to a U.S.
13 Food & Drug Administration (FDA) test indicating
14 the presence of subtrace levels of chrysotile
15 asbestos contamination no greater than
16 .00002 percent in samples from a single bottle
17 purchased from an online retailer."

18 THE COURT: That's the part you want to read?

13:40

19 MR. FINCH: Can I highlight what I want to 13:40
20 read so I -- for the avoidance of doubt, as
21 corporate lawyers might say.

22 So it would read for the record, "Johnson & 13:41
23 Johnson, our company, New Brunswick, New Jersey,
24 October 18, 2019. In the United States of a single
25 lot of its Johnson's baby powder in response to a

1 U.S. Food & Drug Administration test indicating the
2 presence of subtrace levels of chrysotile asbestos
3 contamination no greater than .00002 of a percent
4 in samples from a single bottle purchased from an
5 online retailer."

6 That's the portion I would like to read to the 13:41
7 jury. And we would redact the document when we
8 have the time to do so, and that would be the only
9 portion of Plaintiffs' Exhibit 4 we would seek to
10 offer.

11 THE COURT: Do you want to look at this? 13:41

12 MR. BICKS: And so you have our position on 13:41
13 it.

14 THE COURT: I do. 13:41

15 MR. BICKS: And, I mean, we would object to 13:41
16 this.

17 THE COURT: Yes. The Court knows that the 13:41
18 parties are going -- even if they adhere to the
19 Court's admonishment, are bound to see a limited
20 amount of information about this. And I see the
21 value in informing them within the context of the
22 courtroom setting so that they know and can ignore
23 it going forward into any further investigation or
24 articles.

25 So the Court has heard your objection. And I 13:42

1 will take -- the parties will have the opportunity
2 to provide the Court with briefs as to admission of
3 the balance of the document, but the Court admits
4 that sentence today.

5 MR. BICKS: Well, then, Your Honor, if we're 13:42
6 going to do that, then I'd like to have another
7 part of it then admitted. Can I have the
8 highlighter?

9 THE COURT: It's the official highlighter. 13:42

10 MR. EATON: And how are you going to introduce 13:43
11 it to them?

12 MR. FINCH: I'm just going to read from it. 13:43
13 We'll redact it before it goes back --

14 MR. EATON: Before Rigler's on the stand? 13:43

15 MR. FINCH: Yeah. 13:43

16 MR. BICKS: So we would just not have the 13:43
17 recall part, but out of completion, we would have
18 that.

19 MR. FINCH: I don't think I have an objection 13:43
20 to that, Your Honor, as long as it doesn't have
21 anything about recall. I guess I would like --
22 well, no. Let me talk to Ms. Farinas.

23 We will read it as highlighted. 13:43

24 MR. BICKS: And subject to our objection. 13:44

25 THE COURT: Pardon? Subject to -- 13:44

1 MR. BICKS: Subject to the objections as to 13:44
2 the whole.

3 THE COURT: Over objections. 13:44

4 MR. BICKS: Right. And how exactly are we 13:44
5 going to be doing this?

6 MR. FINCH: I'm going to stand in front of 13:44
7 jury, offer Plaintiffs' Exhibit 7, read it to them,
8 and say that a copy will be -- an appropriate copy
9 will be available for -- as evidence.

10 MR. BICKS: Right. And so can we then -- can 13:44
11 he read what he wants to read and then I'd like to
12 read Johnson & Johnson's fairness provision.

13 MR. FINCH: I'll read the whole thing. 13:44

14 MR. BICKS: No, I'd like to read from 13:44
15 Johnson & Johnson the counterpart.

16 THE COURT: Well, it's his exhibit. 13:44

17 MR. BICKS: Right. But if we were doing 13:44
18 fairness --

19 MR. FINCH: I said I'm going to read it. 13:44

20 MR. EATON: If it were a deposition 13:44
21 designation, they would read their part, we would
22 read ours.

23 MR. FINCH: But I just agreed to read their 13:44
24 part, Your Honor.

25 THE COURT: Well, I understand that. 13:44

1 MR. BICKS: I would prefer to read our part, 13:44
2 because he may emphasize a little differently.

3 MR. FINCH: Far be it from me to emphasize. 13:45

4 THE COURT: Well, you're objecting to its 13:45
5 admission; right?

6 MR. BICKS: Right. 13:45

7 THE COURT: So given that it's his exhibit, 13:45
8 the Court's going to let him read it.

9 MR. BICKS: All right. And I assume he's -- 13:45
10 we're not going to have a dramatic --

11 MR. FINCH: I'm not going to ham it up. 13:45

12 THE COURT: Well, let's hear it now, 13:45
13 Mr. Finch.

14 MS. FARINAS: Mr. Finch, she wants to hear you 13:45
15 read it.

16 MR. FINCH: "Johnson & Johnson, our company, 13:45
17 New Brunswick, New Jersey, October 18, 2019. In
18 the United States of a single of its Johnson's baby
19 powder in response to a U.S. Food & Drug
20 Administration test indicating the presence of
21 subtrace levels of chrysotile asbestos
22 contamination not greater than .00002 percent in
23 samples from a single bottle purchased from an
24 online retailer.

25 "At this early stage of the investigation, 13:45

1 JJCI cannot confirm if cross-contamination of the
2 sample caused a false positive, cannot confirm
3 whether the sample was taken from a bottle with an
4 intact seal or whether the sample was prepared in a
5 controlled environment, cannot confirm whether the
6 tested product is authentic or counterfeit. JJCI
7 has a rigorous testing standard in place to ensure
8 its cosmetic talc is safe. In years of testing,
9 including the FDA's own testing on prior occasions
10 and as recently as last month, found no asbestos.
11 Thousands of tests over the past 40 years" --

12 You know what, Mr. Bicks, you can read your 13:46
13 part because I'm going to mess it up.

14 MR. EATON: And Your Honor, there's not going 13:46
15 to be any context for the document. You're not
16 going to say, this is related to something in the
17 news or -- he's just going to read it in and that's
18 it. Because the idea, of course, is not to draw
19 their attention to going out and looking for
20 something about Johnson's baby powder.

21 THE COURT: Well, Mr. Finch can ask to offer 13:46
22 it and the Court will say that it is being offered
23 over objection.

24 MR. EATON: Okay. 13:46

25 THE COURT: And do both defendants object? I 13:46

1 don't think that BMW cares.

2 MR. EATON: Yeah, BMW objects. 13:47

3 MS. WEGLARZ: No objection. 13:47

4 THE COURT: Okay, thanks. So wait a minute. 13:47

5 Does that mean yes or no?

6 MS. FARINAS: They don't object. 13:47

7 MR. HARNEY: Yeah, no objection. 13:47

8 THE COURT: All right, thank you. So are we 13:47

9 ready for the jury?

10 MR. FINCH: If I could have two minutes, Your 13:47

11 Honor.

12 THE COURT: Well, it'll take that long to get 13:47

13 them.

14 We can go off the record. 13:47

15 (Discussion held off the record.) 13:47

16 THE BAILIFF: All rise. 13:49

17 (Whereupon, the jury entered the courtroom.) 13:49

18 THE COURT: Welcome. Please be seated. 13:50

19 Well, we're going to begin again this 13:50

20 afternoon. Thanks very much for being so prompt

21 and coming back in time. The Court really

22 appreciates it.

23 And plaintiffs are going to continue with the 13:50

24 presentation of their case.

25 MR. FINCH: Your Honor, may it please the 13:50

1 Court. Good afternoon, ladies and gentlemen.

2 We will bring back Dr. Rigler momentarily, but
3 in the interim, plaintiffs would offer Plaintiffs'
4 Exhibit No. 4, which is a press release issued by
5 Johnson & Johnson on today's date. We would offer
6 Exhibit No. 4 pursuant to your Court's rulings.

7 THE COURT: The Court shows Exhibit No. 4 is 13:51
8 admitted over the objection of Johnson & Johnson,
9 as redacted.

10 MR. FINCH: "Johnson & Johnson, our company, 13:51
11 New Brunswick, New Jersey, October 18, 2019. In
12 the United States of a single lot of its Johnson's
13 baby powder in response to a U.S. Food & Drug
14 Administration (FDA) test indicating the presence
15 of subtrace levels of chrysotile asbestos
16 contamination no greater than .00002 percent in
17 samples from a single bottle purchased from an
18 online retailer."

19 MR. BICKS: And then Your Honor, you've 13:52
20 permitted --

21 THE COURT: Yes. 13:52

22 They're each going to read part of the 13:52
23 exhibit.

24 MR. BICKS: "At this early stage of the 13:52
25 investigation, JJCI cannot confirm if

1 cross-contamination of the sample caused a false
2 positive, cannot confirm whether the sample was
3 taken from a bottle with an intact seal or whether
4 the sample was prepared in a controlled
5 environment, cannot confirm whether the tested
6 product is authentic or counterfeit. JJCI has a
7 rigorous testing standard in place to ensure its
8 cosmetic talc is safe, and years of testing,
9 including the FDA's own testing on prior occasions
10 and as recently as last month, found no asbestos.
11 Thousands of tests over the past 40 years have
12 repeatedly confirmed that our consumer talc
13 products do not contain asbestos. Our talc comes
14 from ore sources confirmed to meet our stringent
15 specifications that exceed industry standards. Not
16 only do we and our suppliers routinely test to
17 ensure our talc does not contain asbestos, our talc
18 has also been tested and confirmed to be asbestos
19 free by a range of independent laboratories,
20 universities, and global health authorities."

21 THE COURT: And the Court shows that admitted 13:53
22 over objection, as redacted.

23 MR. FINCH: May we recall Dr. Rigler to the 13:53
24 stand, Your Honor?

25 THE COURT: Yes. 13:53

1 MR. FINCH: May I go get him? 13:53

2 THE COURT: Yes. The Court's going to write 13:53
3 "Redacted" on this.

4 Welcome back, Dr. Rigler. 13:54

5 THE WITNESS: Thank you. 13:54

6 THE COURT: You were sworn this morning, and 13:54
7 you continue to be a sworn witness. So with that,
8 Mr. Finch may continue.

9 THE WITNESS: Thank you, Your Honor. 13:54

10 BY MR. FINCH: 13:54

11 Q Good afternoon, Dr. Rigler. Did you have a nice 13:54
12 lunch?

13 A Yes, sir. 13:54

14 Q We were talking about the three-step method for 13:54
15 detecting asbestos in any kind of material, whether
16 it's talc or a wall or dust or anything else.

17 A Yes. 13:54

18 Q Did your laboratory and Dr. Longo's laboratory 13:54
19 follow this three-step method in analyzing
20 Johnson's baby powder to determine if it had
21 asbestos in it?

22 A Yes, sir, we did. 13:54

23 Q And could you walk the jury through that here. 13:54

24 A Sure. We had talked about these earlier this 13:54
25 morning. The first step is to look at the shape

1 and the form, the length and the width. We're
2 looking for substantially parallel size on the
3 fibers or the bundles with an aspect ratio of
4 around five to one. Five to one --

5 Q Let me stop you right there. You used the term 13:55
6 aspect ratio, and I'm not sure -- if the jury's
7 already heard this term, I'm sorry, but I at least
8 have forgotten. Could you just remind me, what is
9 an aspect ratio?

10 A Sure. That is a number when you divide the length 13:55
11 by the width, you get an aspect ratio. For
12 instance, if the fiber is 5 micrometers long and is
13 one micrometer wide, it would be five divided by
14 one, so it would have a five-to-one ratio.

15 Q So something that's longer and thinner like a 13:55
16 pencil would have a higher aspect ratio than
17 something that's, like, short and fat like a fist?

18 A Yes, it can, that's correct. 13:55

19 Q So five to one or greater, at least five microns in 13:55
20 length.

21 What's the second step that you follow to 13:56
22 determine if something's asbestos?

23 A The second step would be the chemistry. We want to 13:56
24 know if the chemistry matches that of the asbestos
25 type that we're looking at. So we will do an

1 analysis on the electron microscope. If you'll
2 remember, we talked about the electron
3 spectrometer, that's a tool that's on the electron
4 microscope that allows us to do an analysis and get
5 the chemistry of the fiber.

6 Q What is the third step in the process? 13:56

7 A The third step is the -- what we called the 13:56
8 electron diffraction. Remember we talked about the
9 light goes through a prism, breaks it up, you see
10 the different colors. In the electron microscope,
11 the light is the electrons, if you will. They go
12 through the specimen and then they produce a patten
13 of the crystalline structure, and then that pattern
14 is the fingerprint for the type of asbestos.

15 Q Is this protocol, this three-step approach, 13:56
16 discussed in ISO 222 -- excuse me, in ISO 13794 as
17 well?

18 A Yes. This is another ISO method, standard method. 13:57
19 We talked about 22262-2 this morning that has to do
20 with heavy liquid separation methodology. This is
21 another one that has to do with the analysis of
22 asbestos fibers, but it uses the same kind of
23 parameters. It uses the same three-step
24 methodology.

25 Q And when you published your paper in 1995, 13:57

1 "Crocidolite asbestos fibers in Kent cigarettes,"
2 did it also discuss this three-step process?

3 A Yes, it did, yes. 13:57

4 Q It uses a word called morphology. What is 13:57
5 morphology?

6 A That's just a fancy name for shape or form, 13:57
7 morphology.

8 Q And in the ED, energy dispersive x-ray, that's the 13:57
9 chemistry?

10 A Yes, sir, that's the chemistry. 13:57

11 Q And then this selected area, electronic 13:58
12 diffraction, is the -- what is that, the structure,
13 the crystal structure?

14 A That's the crystal structure, Step No. 3, yes. 13:58

15 MR. FINCH: So can I have the ELMO just a 13:58
16 second, Jon.

17 Q Did I get that right, Doctor? 13:58

18 A Yes, sir. 13:58

19 Q So to avoid having to say a mouthful over and over, 13:58
20 that's the three-step -- did you follow that
21 three-step approach for every fiber or structure or
22 bundle that you identified as asbestos in Johnson's
23 baby powder?

24 A Yes. That's according to the standard methodology 13:58
25 in the published peer-reviewed methodology, yes.

1 MR. FINCH: Can I have the PowerPoint back, 13:58
2 Jon.

3 Q Now, in addition to your own peer-reviewed paper 13:58
4 and the International Standards Organization, are
5 you -- you talked briefly about the ASTM method.

6 A Yes. 13:59

7 Q The ASTM publication. Does the ASTM D5755 also 13:59
8 discuss this three-step method that you followed to
9 identify asbestos in baby powder?

10 A Yes, it does. And as you can see from the title of 13:59
11 the method, this has to do with sampling for
12 asbestos in dust. So for instance, if you found
13 dust on a surface somewhere and you suspected it
14 had asbestos in it, this particular standard that's
15 by the American Society for Testing and Materials
16 uses the same three-step process to analyze that
17 dust for asbestos.

18 Q And does the EPA set forth in the regulations why 13:59
19 it chose to use -- required this three-step TEM
20 analysis for detecting asbestos fibers? Does it
21 say -- does the EPA say that?

22 A Yes, sir, it does. That's from the federal 14:00
23 register document for AHERA. We talked about that
24 this morning. It uses the same three-step method.

25 Q And the method -- just to be clear, the method that 14:00

1 you followed to identify asbestos in Johnson's baby
2 powder is the same three-step method that you and
3 other scientists at MAS have been following for
4 30 years?

5 A Yes. And the other asbestos laboratories also 14:00
6 follow the same protocols and procedures, yes.

7 Q And there's a reference in your -- 14:00

8 MR. FINCH: Can I have the ELMO back, Jon. 14:00

9 Q There's a reference in your 1995 paper, No. 11, is 14:00
10 that the same EPA/AHERA rules, three-step process?

11 A That's correct, yes. 14:00

12 Q Did you change the way you identify asbestos fibers 14:01
13 just specially for talc?

14 A No, no, it's the same, same kind of procedure. 14:01

15 Q Since 1987, the EPA has updated the AHERA 14:01
16 regulations; is that right?

17 A Yes. 14:01

18 MR. FINCH: Can I go back to the PowerPoint, 14:01
19 Jon.

20 Q And did the current version of the EPA regulations 14:01
21 still have this three-step methodology?

22 A Yes. 14:01

23 Q So it's morphology with an aspect ratio of five to 14:01
24 one or greater and using the chemistry and the --

25 A Electron diffraction. 14:01

1 Q -- electron diffraction? 14:01

2 A Yes. 14:01

3 Q Now, does the EPA regulations also -- Dr. Brody 14:01
4 yesterday said that aspect ratios of three to one
5 or greater could be considered asbestos for a
6 public health perspective. You and your laboratory
7 are using aspect ratios of five to one or greater.
8 If you're using a higher aspect ratio, is that
9 going to mean that you're going to be calling less
10 things asbestos than maybe what a public health
11 scientist would?

12 A Yes, that's true. If you go up to a little higher 14:02
13 ratio, you're going to count fewer of the smaller
14 ones. So it's more conservative, if you will. The
15 same thing, just a five-to-one ratio versus a
16 three-to-one. OSHA's rules are for three to one.

17 Q And do the EPA regulations explain why it is they 14:02
18 picked five to one as the aspect ratio?

19 A Yes. They talked about that is the most probable 14:02
20 size of what they call asbestiform asbestos, if you
21 will. If you get down below three to one, then you
22 start to get into what we talk about chunk instead
23 of fiber. So that would not be considered
24 asbestiform, if you will.

25 So what they're looking for, once you get into 14:03

1 the three-to-one, five-to-one range or higher, then
2 it's most likely that it is asbestiform.

3 Q And there was a discussion, a debate in 1987, 14:03
4 several commentators suggested that the aspect
5 ratio length to width should be extended to ten to
6 one.

7 A Yes. 14:03

8 Q What was the EPA's ultimate conclusion, which is 14:03
9 highlighted in the second column there?

10 A They believe that it should stay -- a panel of 14:03
11 microscopists, experts that were looking at these
12 structures, said it needed to stay at a five-to-one
13 ratio. Otherwise, there are a lot of structures
14 that are asbestiform, and they can get down into
15 the lungs because the smaller they are, the higher
16 the probability they're going to get into the lung
17 tissue, deep into the lung tissue. So they wanted
18 to keep that at a five-to-one ratio.

19 Q Now, we're going to get to the overall results of 14:03
20 your testing in a while, but can you sort of walk
21 the jury through how you applied this three-step
22 method to an asbestos structure found in a sample
23 of Johnson's baby powder from a 1978 bottle. Can
24 we do that?

25 A Sure. 14:04

1 Q Okay. So what are we looking at here? 14:04

2 A This is a sample of a 1978 Johnson's baby powder 14:04
3 product. This is a nine-ounce bottle. The sample
4 number on there, M69042-002, is the laboratory
5 number for it. So when the samples come into the
6 laboratory, each one of them gets logged in, gets
7 its own specific sample number. Then it is tracked
8 throughout the laboratory and the laboratory
9 processes, so you know exactly what you're talking
10 about from start to finish.

11 Q And the little -- the fine -- as I would say, the 14:04
12 fine print at the bottom says, "MAS 1-15-19 Report
13 Backup Data Binder."

14 This is in the backup to the federal court 14:04
15 report that MAS put together through the MDL
16 process?

17 A To my knowledge, yes, it is. 14:05

18 Q And that was the -- I'll get to more details of 14:05
19 this in a little bit. Am I right that you sort of
20 did two rounds of testing on Johnson's baby powder?
21 The first round was from bottles that you obtained
22 either from lawyers like me or from online sources,
23 and the second round was testing that you got where
24 the samples came directly from J & J; is that
25 right?

1 A Yes, they were part of their historical samples. 14:05

2 Q In a court-supervised process with the second 14:05
3 round?

4 A Yes. 14:05

5 Q And this is from the second round of testing? 14:05

6 A Yes, sir. 14:05

7 Q So this is Sample 69042-002, what are we looking at 14:05
8 here, and what can you tell us about it, Doctor?

9 A So after the sample was prepared and analyzed 14:05
10 for --

11 Q And by prepared, do you mean using what, the Blount 14:05
12 heavy liquid?

13 A Yes, the heavy liquid method. 14:05

14 Q Okay. Go ahead. 14:06

15 A After that preparation, it was found within that 14:06
16 sample asbestos structures. So here's an example
17 of an asbestos structure. It appears to be a
18 bundle. This is anthophyllite asbestos. And it
19 has an aspect ratio of 19.7 to 1. Remember, we're
20 talking about -- we're looking for structures that
21 are at least five to one in length -- excuse me, in
22 aspect ratio. So it has the qualifications and all
23 of the specifications for regulated asbestos fiber.

24 Q So let me just see if I understand the math here. 14:06

25 MR. FINCH: Can I squat down, Your Honor, so I 14:06

1	can point to this. Sorry.	
2	Q Anthophyllite, 35.4 microns by 1.8 microns, is that	14:06
3	the -- the length is 35.4 microns?	
4	A Yes.	14:06
5	Q And the width is 1.8 microns?	14:06
6	A Yes, sir.	14:07
7	Q And then you get the aspect ratio by dividing 35.4	14:07
8	by 1.8?	
9	A Yes, sir.	14:07
10	Q So that's where the 19 comes from?	14:07
11	A Yes.	14:07
12	Q So that's Step 1. This has -- that means that this	14:07
13	structure has a morphology consistent with an	
14	asbestos fiber?	
15	A Yes, sir.	14:07
16	Q Or asbestos bundle?	14:07
17	A Yes.	14:07
18	Q What is -- what are we looking at -- wrong way.	14:07
19	This is another structure identified in that same	
20	sample?	
21	A Yes, sir.	14:07
22	Q And this one has a length of 6 microns and a width	14:07
23	of .7 microns?	
24	A Yes, sir.	14:07
25	Q So what is that aspect ratio?	14:07

1 A It's 8.6 to 1. So that, again, also fits the 14:07
2 parameter.

3 Q For a regulated asbestos fiber? 14:07

4 A Yes, sir. 14:07

5 Q Is this another regulated asbestos -- another 14:07
6 structure that meets the morphology parameters for
7 a regulated asbestos fiber?

8 A Yes. This one is anthophyllite, and it measures 14:08
9 34.5 by 1.1 micron, and the ratio is 31.4.

10 Q Now, what is a count sheet, when the 14:08
11 microscopist -- I assume that the microscopist took
12 the picture of this using the transmission electron
13 microscope when he was analyzing the talc; right?

14 A Yes. 14:08

15 Q And did you review all of these photomicrographs 14:08
16 and all the count sheets in the testing that your
17 lab did?

18 A Yes. 14:08

19 Q We're not going to put the whole report into 14:08
20 evidence, but is it thousands and thousands of
21 pages of count sheets and photomicrographs?

22 A Yes. 14:08

23 Q And photomicrograph is just a fancy word for 14:08
24 photograph?

25 A Yes. 14:08

1 Q So what is a count sheet? And if you could explain 14:08
2 to the jury what we're looking at here.

3 A So the requirement by the methodology is that 14:08
4 the -- the structures that you find that meet the
5 criteria have to be documented, they have to be
6 measured, and they have to be verified. So what
7 you see here in front of you is an actual count
8 sheet from a laboratory. It has the date of
9 analysis. It has the amount that was analyzed.
10 And then going down the sheet, what it has are the
11 locations of each one of the asbestos structures.

12 Over on the right, you see the sort of copper 14:09
13 looking structure that's there. That's actually a
14 grid that is used. It's like a little wire string,
15 if you will, and it's actually made of copper. It
16 has a little film on it, and the sample is on that
17 film. So there's a little higher magnification of
18 it there, and you can see the numbering and the
19 labeling on it, A through J and then 1, 2, 3, 4.
20 And each one of those is a grid square location,
21 each one of those locations, so if you need to go
22 back and find this structure, you can go to this
23 grid and find the exact same spot of where it lies.

24 Q Just to orient the jury in terms of sizes here, am 14:10
25 I right, this distance here is 1 millimeter?

1 A Yes, that's 1 millimeter. 14:10

2 Q So this little copper -- what did you say, it was 14:10

3 made out of copper?

4 A It's called a grid. 14:10

5 Q That little grid is about two-tenths of a 14:10

6 millimeter?

7 A No, that scale there is 10 millimeters. 14:10

8 Q Excuse me, it's 2 millimeters, it's about -- 14:10

9 A Yeah, it's about 3. It's about 3. 14:10

10 Q And so but in each of these little squares that you 14:10

11 look at is a fraction of that?

12 A Yeah, they're about a tenth of a millimeter. 14:10

13 Q Okay. And then what -- it looks kind of like a 14:10

14 Battle Ship board to me.

15 A Yes. 14:10

16 Q But what is the actual sheet on the left here? 14:10

17 What do the rows and grid say? What do they say?

18 What do they mean?

19 A Well, what you have on the left is the STR number. 14:10

20 That's the structure number. So if a structure is

21 found, it's given a number. You see NSD. That

22 means no structure detected for that particular

23 grid square. So B2-B6 is actually the grid box

24 location that it's put in because it's kept in

25 storage at the laboratory in a box, a small box.

1 And then what you have is the grid number. And
2 then B6 is the grid square location. So if you
3 went over on there and you looked at B and then
4 went down to 6, you can tell exactly what little
5 square the analyst was looking at.

6 Q And is this a count sheet that shows what, like -- 14:11
7 for example, Structure No. 1 was found in grid B8,
8 that's a bundle of anthophyllite, and it tells you
9 the length, the width, the ratio?

10 A Yes. 14:11

11 Q And then the little checkmarks, SAED and EDS, are 14:11
12 those Steps 2 and 3?

13 A Yes, yes. Again, this is just a portion of this 14:11
14 sheet. Some of the images we saw before, they're
15 on this sheet. I think the highlighted one at the
16 bottom was one of the images that we looked at.

17 Q Okay. 14:12

18 A The -- 14:12

19 Q Sorry. 14:12

20 A Oops, sorry. The aspect ratio is calculated there 14:12
21 and the X's that are on the sheet show -- it's
22 verified that the analyst looked at the diffraction
23 SAED -- remember we talked about that -- and also
24 the chemistry, the EDS, where X marks the spot is
25 where the analyst did the verification for that.

1 They actually did that analysis.

2 Q And in your report, you have the average aspect 14:12
3 ratio for all of the asbestos structures you
4 identified in this particular sample of Johnson's
5 baby powder?

6 A Yes, yes. And again, that's -- this is important 14:12
7 to get the average aspect ratio. You can see the
8 ratios here in the chart. The important part here
9 is, again, are they at least five to one or
10 greater, because what that says is this is an
11 asbestos structure and it meets the specification
12 for it. So you can see the ratio here, the average
13 is about 14.

14 Q Now, in addition to the morphology, you also 14:13
15 checked the -- you apply Step 2 and Step 3, you
16 check the chemistry?

17 A Yes. 14:13

18 Q Can you walk us through what Step 2 was for the 14:13
19 asbestos structures you identified?

20 A Well, each one of them did an EDS, the chemistry, 14:13
21 and what you get out of that is a graphic
22 representation. Here we go. And this shows -- the
23 graph is showing the peaks for each one of the
24 elements that are associated with the asbestos
25 structure itself. So you see these peaks that are

1 on here. One's labeled MG. That's magnesium. One
2 is labeled SI. That's silicon. One is labeled FE.
3 That's iron. And then you see some other peaks
4 that are on here. They're associated with the
5 actual grid, the copper grid itself, so they're not
6 labeled.

7 Q So this is the -- I don't exactly remember all the 14:14
8 abbreviations from the periodic table of elements
9 from high school.

10 A Yes. 14:14

11 Q But like SI is silicon; is that right? 14:14

12 A Yes. 14:14

13 Q And this shows the relative ratio of silicon. And 14:14
14 what is that?

15 A Magnesium. 14:14

16 Q Magnesium? 14:14

17 A Yes. 14:14

18 Q And then, I guess, FE that's -- 14:14

19 A Iron. 14:14

20 Q -- ferrous, iron? 14:14

21 A That's iron. 14:14

22 Q Do you compare this chemical readout to a known 14:14
23 reference standard for either anthophyllite or
24 tremolite or other known asbestos?

25 A Yes. We have reference standards in the 14:14

1 laboratories required by the agencies that you keep
2 those references, and then you compare them.

3 Q Now, Step 3, explain how Step 3 is applied to the 14:14
4 structures identified.

5 A Okay. Step 3, while you're doing this, essentially 14:14
6 you're looking at the structure, just like you saw
7 the picture of it here, in real time you're looking
8 at it. And what the analyst will do, they'll take
9 the electron beam and they can move the beam into a
10 little spot and they can put it right on that
11 structure. And when they do that --

12 Q Is this an example of that? 14:15

13 A Yes, yes. When they do that, they will get the 14:15
14 pattern. Remember we talked about the breaking up
15 of light through a prism and you get the colors.
16 When you run electrons through an asbestos or
17 crystalline structure, you're going to get a
18 pattern, and it looks very much like this, like the
19 little dots that you see here. And those dots, if
20 you measure between them, they're the actual
21 distance between the atoms in the asbestos
22 structure itself.

23 So we can take these patterns and we can look 14:15
24 at them, and then we can tell exactly what it is.

25 Q Okay. Am I correct that the chemical formula for 14:15

1 anthophyllite is very similar or the same as the
2 chemical formula for talc?

3 A Yes, it can be. 14:16

4 Q How do you distinguish between talc and 14:16
5 anthophyllite asbestos when you are doing this
6 analysis? Which of these three steps does that?

7 A They both can have similar ratios of magnesium and 14:16
8 silicon, the first two big pieces that you saw in
9 that one chart. Now, they can have some amount of
10 iron or very little iron. So --

11 Q This is the peaks you were talking about before? 14:16

12 A Yes, yes. So that iron, that iron peak that you 14:16
13 have seen there can be very low. So once you look
14 at the chemistry, you go, well, this could be talc
15 or it could be anthophyllite. Now, you've already
16 looked at it and see that it's a long rod. Talc,
17 in products like the Johnson & Johnson baby powder,
18 is mostly, practically all flat plates. The talc
19 that's in there, they look like little flat plates,
20 like little tiles everywhere.

21 Now, there is talc that exists as fibers. 14:17

22 It's fibrous talc. So when you're looking at a
23 fiber, you've got to make sure it's not fibrous
24 talc. You want to see if it is asbestos. Now, the
25 funny thing is, the interesting thing is, some

1 asbestos types can form talc from talc. They can
2 be transitional, what they call transitional. On
3 one end they can be asbestos, on the other end they
4 can be talc. So what the analyst has to do is they
5 have to take this technique with the spots that you
6 see and they have to actually tilt the little fiber
7 structure. And when you start tilting it a little
8 bit, if this pattern changes from spots to what
9 looks like little hexagonal, it looks like a little
10 six spots in a --

11 Q Is that an example of the hexagon you're talking 14:17
12 about?

13 A Yes, yes. That's indicative of talc right there. 14:17
14 So when we're looking at that structure, we would
15 say that that was a talc structure. It'll have the
16 same chemistry as anthophyllite. So we have to
17 look at it and check that.

18 Q Okay. So this particular structure we're looking 14:18
19 at, when the analysts rotated the structure around,
20 you have two different diffraction patterns; is
21 that right?

22 A Yes, but the spots remain the same and the 14:18
23 measurements between the spots will remain the
24 same. So for true anthophyllite, there's a
25 distance, and they will stay the same. But if I

1 rotate them and I start to see this six-point
2 pattern, then I've got either talc on one end and
3 asbestos on the other end, maybe anthophyllite on
4 the other end, or I've just got a talc fiber. So
5 that's something that has to be always checked with
6 anthophyllite, and we do that.

7 Q And so does this slide sort of lay out the 14:18
8 three-step method that you applied -- that you
9 applied to identify anthophyllite asbestos in
10 Johnson's baby powder?

11 MR. BICKS: Your Honor, can I just object and 14:18
12 ask that we be precise about "we," because there's
13 a lot of testimony about "we" did something. I
14 would request that the witness make it clear who's
15 actually doing things.

16 THE COURT: I'll sustain that objection. 14:19

17 BY MR. FINCH: 14:19

18 Q Okay. Explain what this three-step -- what this 14:19
19 slide shows, Dr. Rigler.

20 A It shows that -- for this particular structure, it 14:19
21 showed the morphology was consistent with asbestos.
22 That is the shape and the form, the aspect ratio.
23 It showed that the chemistry was consistent with an
24 asbestos-type anthophyllite. And then when the
25 diffraction was done, it also showed that it was

1 consistent with anthophyllite. And in science, we
2 like to measure things multiple different ways to
3 get the answer. If we can measure it in multiple
4 ways, we can get a very good answer like that.

5 Q Doctor, I probably should have asked you this at 14:19
6 the outset. But would you agree that any opinion
7 you're giving to this jury is to a reasonable
8 degree of scientific certainty?

9 A Yes. 14:20

10 Q Has that been the case for all of your answers up 14:20
11 to this point?

12 A Yes. 14:20

13 Q And will that be the case for the rest of the day? 14:20

14 A Yes. 14:20

15 Q And including, if you come back next week, would 14:20
16 that be the case then?

17 A Yes. 14:20

18 Q So does the EPA have specific recording rules for 14:20
19 what you have to count as regulated asbestos?

20 A Yes. 14:20

21 Q Could you explain that to the jury. 14:20

22 A Well, again, it's nothing new. We talked about it 14:20
23 a little bit earlier. It's more of the same thing,
24 which is in this case the aspect ratio needs to be
25 at least five to one for the AHERA/EPA. And OSHA

1 as three to one. So that's their rule. So you
2 would count even more than they may be smaller. So
3 that's their rule.

4 The length needs to be at least a half a 14:20
5 micron in length. And then you have to record all
6 of these things on a count sheet. You've already
7 seen the laboratory, it has a count sheet, and you
8 have to record those things.

9 They also, and we talked about this a little 14:21
10 bit earlier on, have to be recorded as fibers,
11 bundles, what they call clusters, little matrices.
12 These are groups of asbestos fibers together.

13 Now, if you saw a group of them together like 14:21
14 this, let's say all my fingers were fibers and they
15 were looking like this, you would call that a
16 cluster. But technically, by their rules, you have
17 to call that one structure. So there may be ten
18 there, but we have to call that one. So that would
19 be an underestimate of how many are really there.
20 But by their rules, that's the way we have to call
21 them.

22 Q Do the regulations also have a definition of what 14:21
23 is not asbestos?

24 A Yes, it does. 14:21

25 Q What is that? 14:21

1 A If you can't get a good chemistry or the chemistry 14:21
2 does not match up for the asbestos, then it's not
3 going to be -- it's not even going to be on the
4 count sheet.

5 If you do a diffraction pattern of it and it's 14:21
6 something that's completely different or you have
7 spots that are difficult to read, then it may not
8 also be -- if a morphology is, you know, less than
9 three to one, definitely not.

10 Q We talked about EPA/AHERA, ISO 22262, and the ASTM. 14:22
11 Have you also had the opportunity to look at
12 Johnson & Johnson's specifications for using
13 transmission electron microscopes to analyze talc
14 for the determination of asbestos?

15 A Yes. 14:22

16 MR. FINCH: And Your Honor, at this time we 14:22
17 would offer Plaintiffs' Exhibit 38. I believe it's
18 a stipulated exhibit.

19 MR. BICKS: No objection. 14:22

20 THE COURT: The Court shows Exhibit 38 14:22
21 admitted without objection.

22 Q Dr. Rigler -- oops, wrong way. 14:23

23 MR. FINCH: Can I go to the ELMO, Jon. 14:23

24 Q This is Johnson & Johnson Consumer Companies 14:23
25 Worldwide Specification TM7024. We happened to

1 mark it as Plaintiffs' 38. Are you familiar with
2 this document?

3 A Yes, sir. 14:23

4 Q Method 7024, is that what Johnson & Johnson called 14:23
5 its electron microscope method for analyzing talc
6 for asbestos?

7 A Yes. 14:23

8 Q Were there versions of this that go back sometime 14:23
9 to the mid 1970s?

10 A I believe there are, yes. There are three 14:23
11 versions, I believe.

12 Q This one says 1995 on it? 14:23

13 A Yes. 14:23

14 Q Am I correct that Johnson & Johnson never used the 14:24
15 Blount heavy liquid separation method to test its
16 talc for asbestos, generally speaking?

17 MR. BICKS: Objection on the foundation 14:24
18 grounds, Your Honor.

19 Q Have you reviewed Johnson & Johnson's testing 14:24
20 protocols --

21 THE COURT: So I'll sustain -- 14:24

22 A -- for testing talc? 14:24

23 THE COURT: I'll sustain that. But you're 14:24
24 asking --

25 Q Have you reviewed Johnson & Johnson's testing 14:24

1 protocols for testing talc for the presence of
2 asbestos?

3 A Yes. 14:24

4 Q And this is one of those documents, and you've seen 14:24
5 earlier versions of this?

6 A Yes. 14:24

7 Q In anywhere in this document, does it require or 14:24
8 talk about using the Blount or any kind of heavy
9 liquid density separation method?

10 A No. 14:24

11 Q Does the Johnson & Johnson -- 14:24

12 MR. FINCH: Can I go back to the PowerPoint, 14:24
13 Jon.

14 Q Does the Johnson & Johnson TM7024 method have a 14:24
15 definition of what is an asbestos fiber?

16 A Yes, it did. 14:24

17 Q What is it? 14:24

18 A An elongated particle with parallel sides and an 14:25
19 aspect ratio of three to one.

20 Q And the definition employed may vary with the needs 14:25
21 of the client?

22 A Yes. 14:25

23 MR. FINCH: May I have Exhibit P-196. 14:25

24 Q We'll come back to Exhibit 38 later, but I want to 14:25
25 ask you about another Johnson & Johnson document.

1 MR. FINCH: We would offer Plaintiffs' 196, 14:25
2 Your Honor. I believe this is another stipulated
3 exhibit.

4 MR. BICKS: What is it? 14:25

5 MR. FINCH: It's -- I just gave the witness my 14:25
6 copy. Do you have any objection to it?

7 MR. BICKS: Can you just let me know what it 14:25
8 is?

9 MR. FINCH: Yeah. I thought we gave you 14:25
10 copies before break. Sorry.

11 MR. BICKS: No, that's all right. No 14:25
12 objection.

13 THE COURT: The Court shows Plaintiffs' 14:26
14 Exhibit 196 admitted without objection.

15 MR. FINCH: And can I have the ELMO, Jon. 14:26

16 BY MR. FINCH: 14:26

17 Q This is a document dated January 10, 1994, and it's 14:26
18 a summary of raw material and finished product
19 testing for baby powder, talc; is that right,
20 Dr. Rigler?

21 A Yes, sir. 14:26

22 MR. FINCH: And Jon, can I go back to the 14:26
23 PowerPoint.

24 Q In Exhibit 196, is there a definition of asbestos 14:26
25 in this document?

1 A Yes. 14:26

2 Q What is Johnson & Johnson's definition of asbestos 14:26
3 in this 1994 document?

4 A "Asbestos is defined to be the fibrous serpentine, 14:26
5 chrysotile and the fibrous forms of amphibole group
6 as represented by amosite, anthophyllite,
7 crocidolite, tremolite and actinolite."

8 Typo in anthophyllite. 14:27

9 Q No one's perfect, right, not even Johnson & 14:27
10 Johnson.

11 MR. FINCH: The next exhibit is Exhibit 386, 14:27
12 which I believe is another stipulated exhibit. We
13 would offer that.

14 THE COURT: Thank you. 14:27

15 MR. BICKS: Can I just quickly see? 14:27

16 MR. FINCH: Yeah. 14:27

17 MR. BICKS: No problem. 14:27

18 THE COURT: The Court shows Plaintiffs' 14:27
19 Exhibit 386 admitted without objection.

20 Q Am I correct that Exhibit 386 lays out -- 14:27

21 MR. FINCH: Can I have the PowerPoint, Jon. 14:28

22 Q -- Johnson & Johnson's three-step method to 14:28
23 identify asbestos in talc?

24 A Yes. 14:28

25 Q This is a document entitled "Analysis of Powdered 14:28

1 Talc for Asbestiform Minerals by Transmission
2 Electron Microscopy dated 1989."

3 A Yes. 14:28

4 Q And under -- on the first page, "Principle of 14:28
5 Method, The combined techniques of transmission
6 electron microscope, selected area diffraction and
7 energy dispersive x-ray analysis (EDXRA) permit the
8 detection of asbestiform minerals based on
9 morphological characteristics, followed by
10 definitive mineralogical identification of each
11 fiber."

12 Is that the three-step process for identifying 14:28
13 asbestos?

14 A Yes. 14:28

15 Q Does this document also have a definition of an 14:28
16 asbestos fiber, at least according to Johnson &
17 Johnson for its own business purposes?

18 A Yes, it does. 14:29

19 Q In Section 13.1, which is on page -- the Bates page 14:29
20 is 7922, how does Johnson & Johnson define an
21 asbestos fiber?

22 A An elongated particle with parallel sides and an 14:29
23 aspect ratio greater than or equal to three to one.

24 Q How does that aspect ratio compare to the aspect 14:29
25 ratio that MAS used?

1 A It's less conservative. You would find that more 14:29
2 structures would fit into that ratio.

3 Q More structures would fit into the definition of 14:29
4 asbestos?

5 A Yes, exactly. And the one for AHERA that MAS uses 14:29
6 is more conservative.

7 Q With respect to the five-to-one aspect ratio, 14:29
8 length to width, in addition to your own paper and
9 the EPA regulations and the ISO procedures in the
10 Johnson & Johnson documents, is there other
11 peer-reviewed literature that discusses the
12 five-to-one aspect ratio?

13 A Yes. 14:30

14 Q Are you familiar with a microscopist named Jim 14:30
15 Millette?

16 A Yes, sir. 14:30

17 Q Dr. Millette is a published author. Did he 14:30
18 recommend using the five-to-one aspect ratio?

19 A Yes. 14:30

20 Q Now, for this sample of 69042-02, the 1978 14:30
21 Johnson's baby powder sample that you got from
22 Johnson & Johnson, did you do an analysis of how
23 many asbestos structures per gram were detected in
24 that bottle?

25 A Yes. That was done, yes. 14:30

1 MR. BICKS: Again, Your Honor, can we just be 14:31
2 clear about who did what? He said he did it.

3 Q Did you do a mathematical calculation that took the 14:31
4 data recorded by the analysts to determine how many
5 asbestos fibers or bundles were in a nine-ounce
6 bottle; did you do that last night?

7 A I have done a calculation like that, yes. 14:31

8 Q And the analysts at MAS recorded the asbestos 14:31
9 structures following the government rules; is that
10 right?

11 A Yes, sir. 14:31

12 Q So what are we looking at here? 14:31

13 A This is a calculation of the number of asbestos 14:31
14 structures that were found in this product per gram
15 of talc, 63,800 asbestos structures per gram.

16 Q And what does that mean in terms of asbestos fibers 14:31
17 or bundles in a nine-ounce bottle of Johnson's baby
18 powder?

19 A That means that if you take that number of 14:32
20 structures per gram and you look at 9 ounces here,
21 28.35 grams per ounce, that would be 1,000,880
22 structures per ounce, totaling 16,278,570 asbestos
23 structures in that particular bottle there based on
24 its weight.

25 Q Now, you mentioned earlier -- 14:32

1 MR. FINCH: Can I have another piece of blank 14:32
2 paper.

3 Can I have the ELMO, Jon. 14:32

4 Q Okay. So when you're talking about asbestos 14:33
5 structures, what is that, Dr. Rigler?

6 A That would be a cluster. 14:33

7 Q What would that be? 14:33

8 A Those would be -- they would be single fibers or 14:33
9 you could say they were a bundle if they were
10 closer together like that.

11 Q But if they're like this -- 14:33

12 A That would be a bundle. 14:33

13 Q And then this would be a fiber? 14:33

14 A Yes. 14:33

15 Q So when you are calculating the fibers or bundles 14:33
16 in a nine-ounce bottle, if some of the structures
17 identified are bundles, say they're bundles instead
18 of fibers, what would that mean in terms of total
19 number of asbestos fibers in that gram or in that
20 nine-ounce bottle?

21 A Well, as I explained before, if the analysts saw a 14:33
22 cluster, it would only be counted as one. But if
23 it truly has ten structures there, you've
24 undercounted it by ten just to start with. So the
25 number could be much higher. But those are the

1 rules that we have to go by.

2 MR. FINCH: Can I have the PowerPoint, Jon. 14:34

3 Q Now, is this another sample of Johnson's baby 14:34
4 powder from the mid to late 1970s that the MAS lab
5 tested that you reviewed?

6 A Yes. 14:34

7 Q What are we looking at here? 14:34

8 A This is an asbestos structure that was found in 14:34
9 that talc product. This is what's called a
10 ferro-anthophyllite. This is a high iron
11 anthophyllite asbestos type.

12 Q And what is this? 14:35

13 A Same thing, another one of the structures. This is 14:35
14 a good example of a bundle. You can see the very
15 ends of it appear to be groups of fibers packed
16 together. So that would be a bundle. The size is
17 16.4 microns by 2.6 microns.

18 Q And the 2.6 microns, that's from here to here? 14:35

19 A Yes, that's the width. 14:35

20 Q And there could be, it looks like there's many, 14:35
21 many fibers --

22 A Yes. 14:35

23 Q -- that make up that bundle? 14:35

24 A Yes. 14:35

25 Q So am I correct that the -- each fiber that goes 14:35

1 into that bundle would obviously be much, much
2 thinner than 2.6 microns?

3 A Yes, and the aspect ratio would be much, much 14:35
4 higher.

5 Q What are we looking at here, Doctor? 14:35

6 A Another structure from that sample, another 14:35
7 ferro-anthophyllite structure, another bundle.

8 Q Another asbestos bundle? 14:36

9 A Yes. 14:36

10 Q And this is 68233002-002. 14:36

11 A Yes. 14:36

12 Q What is this, Doctor? 14:36

13 A That's the one we just saw before, a little 14:36
14 earlier. The designation 002, 002 is the second
15 structure that was found in this -- in this
16 analysis right here.

17 Q Do you have some pictures of that same bundle taken 14:36
18 with a scanning electron microscope?

19 A Yes. 14:36

20 Q So what are we looking at here? 14:36

21 A So here we have the -- this is the exact same 14:36
22 fiber, only looking at it with a scanning electron
23 microscope. Remember we talked about the fact that
24 each one of us can see each other because the light
25 is reflecting off of us. Well, the principle of

1 the scanning electron microscope is somewhat same.
2 The electrons are bouncing off, and the microscope
3 sees them more in three dimensions. So you can see
4 the actual bundling here and the fibers clearly,
5 actually more than compared to the TEM picture.

6 Q And do we have progressively closer magnification 14:37
7 of this asbestos bundle using scanning electron
8 microscope?

9 A Yes. This is a higher magnification of the same 14:37
10 thing, of the one end of the structure, the right
11 side of it, yes. And then this is more looking
12 down the length of it. And as you can see, lots of
13 fibers in this bundle.

14 Q And if we get even closer, what do we see here and 14:37
15 why is it significant?

16 A Yeah. You can see more of the actual fibers 14:37
17 themselves that make up this bundle, what's called
18 asbestiform ferro-anthophyllite. It's a very --
19 it's a beautiful image as far as microscopist is
20 concerned. So, yeah, it's a very good picture of
21 that.

22 Q Beauty is in the eye of the beholder. 14:38

23 A Yes, yeah. 14:38

24 Q And then what are we looking at here, this curved 14:38
25 image?

1 A That's another one of the structures that is part 14:38
2 of this, and it does show you that you have
3 curvature, which again was one of the -- one of the
4 things that was suggested for a more -- a larger or
5 a bulk size piece of asbestos. They can be curved.
6 The fibers can be curved and flexible and all of
7 this. And sometimes you'll see them like this.
8 They're part of the bundle, as you can see, but
9 they'll be sort of lying at angles on top of the
10 bundle or in the area of the bundle.

11 Q What does it mean for a bundle to have splayed 14:38
12 ends?

13 A That, again, was the first picture that you saw, 14:38
14 sort of like my fingers, that's what you considered
15 splayed. They're just sort of spread out.

16 Q Is this -- which picture are you referring to? 14:39

17 A The very first one, yes. Up in -- yeah, on the 14:39
18 right-hand side.

19 Q Oh, this? 14:39

20 A In that area, yes. 14:39

21 Q That's an example of splayed ends? 14:39

22 A Yeah. And you can see it real well in the TEM too. 14:39

23 Q That would be -- 14:39

24 A Right, right. It shows you the splayed ends there. 14:39
25 And the reason, again, the structure looks very

1 dark, because the electrons essentially get stopped
2 in the structure, except for the ends where it's
3 thin enough to go through. So that's part of the
4 thing with TEM, is the specimen needs to be very
5 small and thin so you can see it. But with the
6 SEM, you can see everything. But, again, the SEM,
7 you can't do the crystallinity measurement, you
8 can't do that. So that's why the TEM is very
9 important.

10 Q Now, with this particular sample, for everything 14:39
11 that was identified by morphology as asbestos, was
12 it also identified by chemistry and by the --

13 A Diffraction. 14:40

14 Q -- diffraction? 14:40

15 A Yes. 14:40

16 Q And this is an example from that same sample of the 14:40
17 chemical signature of anthophyllite asbestos?

18 A Yes. This is the first fiber that was found in 14:40
19 there, and it shows you the magnesium and silicone
20 piece that are there and also the iron peak that's
21 there. It's indicative of this type of asbestos.

22 Q And this is the -- 14:40

23 A Diffraction pattern. 14:40

24 Q -- diffraction pattern? 14:40

25 A Yes, sir. 14:40

1 Q And for this particular 1978 museum sample, did you 14:40
2 also calculate the average aspect ratio for the
3 asbestos bundles or fibers found in that bottle
4 of -- that sample of Johnson's baby powder?

5 A Yes. And it came out to 19.4. 14:40

6 Q Again, why is that significant? 14:41

7 A Again, above three to one, five to one, that's when 14:41
8 you -- these are considered asbestiform structures.
9 So that's important. They get down below, you
10 know, three to one, you get to two to one and
11 smaller than that, then they're just big chunks
12 that, you know, they're not qualified as the
13 asbestiform asbestos. They don't meet the
14 regulatory definition.

15 Q Is this another sample of Johnson's baby powder you 14:41
16 got from the company from 1984 time frame?

17 A Yes. 14:41

18 Q And what are we looking at here? 14:41

19 A This is another anthophyllite asbestos structure 14:41
20 that was found in that talc product. It's
21 measuring 9.89 by .46 microns. So it's a bundle.

22 Q Now, here we have a picture that looks -- from this 14:42
23 sample looks a little bit different. What is this?
24 What kind of tool was used to take it? What is
25 important about it? That's a bunch of questions.

1 A Sure. 14:42

2 Q But why don't you first tell us what kind of tool 14:42
3 was used to take it, and then we'll take it step by
4 step.

5 A If you remember earlier today we saw the light 14:42
6 microscope, the PLM, the polarizing light
7 microscope. This is from that kind of microscope
8 whereby the sample is prepared in a specific type
9 of fluid that has a refractive index that's used
10 for assessing asbestos structures. And when you
11 put that kind of sample in that fluid and then you
12 take polarizing filters and you cross them, you
13 will get a certain amount of light through them,
14 which will indicate a particular kind of asbestos
15 type.

16 And in this particular case, it's what we call 14:42
17 actinolite/tremolite. You see there's two words
18 put together. There are two different types of
19 asbestos, but in the ground, and in geology, they
20 grade one into the other. So you can see them
21 sometimes together in certain geological
22 formations, and they're all what's called a solid
23 solution series. So one may braid into the other
24 one. So they can be named actinolite/tremolite.

25 Q What does the polarizing light microscope allow you 14:43

1 sometimes to do in analyzing a material to
2 determine if there's asbestos in it?

3 A It can also help you determine if it's not there. 14:43
4 You can also see in this image, there are other
5 structures that are in here. Most likely they're
6 platy talc, because it is a talc sample. So they
7 will show up in a way that is unique for them too.

8 Q What are we looking at here? 14:43

9 A This is, again, in the same kind of microscope, 14:43
10 polarizing light microscope. They used another
11 kind of technique called dispersion staining with
12 this, and this is where they use a special kind of
13 lens that allows a certain wavelength of light
14 through.

15 And then when you look at that asbestos in 14:44
16 there, the one we looked at before, same one, kind
17 of looks gray in the first one, in this one, it
18 will look blue. And it depends on the angle that
19 you rotate the asbestos in there, and it will be
20 distinctive for the kind of asbestos that it is.
21 It may go from blue to yellow, and that's part of
22 the PLM analysis process for asbestos.

23 Q Now, with respect to this 1984 Johnson's baby 14:44
24 powder sample, was there also -- was there a count
25 sheet that recorded the information about the

1 dimensions of the asbestos fiber and whether it met
2 both -- all three steps?

3 A Yes, there was, of course, yes. 14:44

4 Q Is that true for every structure that was 14:44
5 identified in the samples?

6 A Yes, sir. 14:45

7 Q What was the average aspect ratio for this 14:45
8 particular sample of Johnson's baby powder from
9 1984?

10 A It shows it to be 11.5. When you take the 21.5, 14:45
11 the 5.4, and 7.5, you make -- take the average of
12 those, and you get 11.5.

13 Q Now, you mentioned before that when you do an 14:45
14 analysis of a fiber to determine if it's chemically
15 the same as asbestos, to compare it to a known
16 reference.

17 Do you recall that? 14:45

18 A Yes. 14:45

19 Q Remind us, what is the NIST and where did the known 14:45
20 references come from?

21 A NIST is the National Institute for Standards and 14:45
22 Testing in Washington, D.C. They are the ones who
23 oversee the programs for the asbestos analysis
24 laboratories, the NVLAP, National Voluntary
25 Laboratory Program. And what they do is they have

1 their own standard sample of asbestos, and here you
2 see a picture of it. This is what's called the
3 1867 standard. It's pure tremolite asbestos that's
4 in that vial right there.

5 And so the laboratories are required to keep a 14:46
6 sample of this, and then what they do is they go
7 make a TEM grid of this sample. They put it in the
8 electron microscope, and then they'll look at those
9 asbestos fibers and structures and be sure that the
10 lab is complying with this standard.

11 Q Does the reference standard have the chemistry, the 14:46
12 EDXA?

13 A Yes. 14:46

14 Q Is this an example of the reference standard for 14:46
15 tremolite?

16 A Yes. In this panel you see two micrographs that 14:46
17 each show a tremolite fiber, asbestos fiber from
18 that standard, from this standard. The top one
19 measures, what is it, 20.2., and the bottom one
20 measures 5.5. They have the correct aspect ratio.

21 And then on the right side, you can see the 14:47
22 chemistry. And in this case, for tremolite,
23 tremolite also has the magnesium and the silicone
24 peak, you can see that. But it also has a calcium
25 peak, which goes right around with the chemistry of

1 what tremolite is. It has a little bit of iron.
2 It can vary depending on the geological deposits.

3 So there is the EDS. On the left, you've got 14:47
4 the morphology of it, the shape and structure and
5 the correct aspect ratio, and then on the right,
6 you've got chemistry.

7 Q In addition to the chemistry signature for the 14:47
8 reference standards, is there also an SAED, it
9 would be a crystalline structure standard?

10 A Yes. So here again, the same two images, same two 14:47
11 structures, and what the microscopist has done is
12 set it up to do the diffraction. And you see in
13 this case the diffraction pattern, which are the
14 pattern lines and spots. And again, if you went
15 and measured the inter-row spacing, you would get
16 the dimensions for the amphibole tremolite. If you
17 rotated this like we had talked about before for
18 anthophyllite, that pattern will not change. It
19 may adjust a little bit, but it would still look
20 like the same kind of pattern.

21 Q And did the analysts in your laboratory when you 14:48
22 were at MAS compare each chemical signature and
23 each crystalline structure to a known reference
24 when they were doing the analysis in real time with
25 the talc?

1 A There -- yes and no for that answer. They can rely 14:48
2 on the chemistry and the diffraction, of course,
3 and the morphology to verify that. The standards
4 are checked periodically, and when the analysts
5 are -- when the auditors come, they have to
6 demonstrate their proficiency in being able to
7 obtain these patterns and do the chemistry. So
8 they're tested on that by the auditors.

9 Q Are you familiar -- you've talked about morphology. 14:49
10 When you described for the jury bundles and fibers,
11 was that just your definition, or is that out there
12 in the published literature and in the regulations?

13 A That's in the published literature and the 14:49
14 regulations. That's not our -- we have to follow
15 those definitions. That's part of what we have to
16 do, or the laboratory has to do.

17 Q Are you familiar with a publication by the Bureau 14:49
18 of Mines from 1977, lead author Campbell, entitled
19 "Selected Silicate Minerals and Their Asbestiform
20 Varieties: Mineralogical Definitions for
21 Identification and Characterization"?

22 A Yes. 14:49

23 Q Do you regard that as generally reliable and 14:49
24 authoritative on the question of whether something
25 is asbestos or not asbestos?

1 A Yes, sir. 14:50

2 Q And does this publication have pictures that allow 14:50
3 you to describe or show you asbestiform versus
4 things that aren't asbestiform?

5 A Yes, it does. And you can see from the different 14:50
6 types of structures that are here, they are
7 described as asbestiform. And the structures that
8 you see here, remember we had talked about
9 different gradations in a geological deposit, you
10 can have combinations of these and mixtures of
11 these. So defined pure deposits is kind of a
12 misnomer to some degree because they're all
13 somewhat blended together.

14 Q And in the same publication, do they have a map of 14:50
15 the regions in the United States reported by the
16 Environmental Protection Agency to contain
17 asbestiform minerals in the bedrocks?

18 A Yes. 14:51

19 Q Is that that map? 14:51

20 A Yes. That shows regions in the United States where 14:51
21 asbestiform minerals occur, across the hatching
22 patterns.

23 Q Does an asbestiform mineral generally mean 14:51
24 asbestos?

25 A Yes. 14:51

1 Q Is the state of Vermont on that map? 14:51

2 A Yes. 14:51

3 Q Dr. Blount, the Rutgers scientist that the jury's 14:51
4 heard a little bit about in opening -- they've seen
5 a couple of documents -- did she publish in her
6 1991 paper a discussion of the morphology of
7 asbestos structures?

8 A Yes. 14:51

9 Q And what did Dr. Blount say about the morphology 14:51
10 discussed with these structures?

11 A In her paper, she states that if it's in a bundle, 14:51
12 that it appears to be in a bundle form, it's
13 definitely asbestiform.

14 Q Is the exact quote, "With true asbestiform 14:52
15 amphiboles, one generally sees some particles
16 showing bundles of fibrils which removes any doubt
17 about the nature of the amphibole"?

18 A Yes. 14:52

19 Q Does ISO 22262-1, one of the ISOs that you rely on, 14:52
20 have a description or a discussion of the things --
21 what to look for to determine if fibers are, in
22 fact, asbestiform?

23 A Yes. 14:52

24 Q What does ISO 22262-1 say about that? 14:52

25 A Well, as you can see in the outline here, there are 14:52

1 five characteristics, parallel fibers occurring in
2 bundles; fiber bundles displayed -- displaying
3 splayed ends, which we've already talked about;
4 fibers also in the form of thin needles; matted
5 masses of individual fibers, we talked about those.
6 You know, cross your hands. You know what those
7 are. And also fibers that show curvature, and we
8 saw an example of that too.

9 Q This is an asbestos fiber bundle found in Johnson's 14:53
10 baby powder?

11 A Yes. 14:53

12 Q This is the image we looked at before showing the 14:53
13 splayed ends?

14 A Yes. 14:53

15 Q And the curvature? 14:53

16 A Yes. 14:53

17 MR. FINCH: May I approach briefly, Your 14:53
18 Honor.

19 THE COURT: Yes. 14:53

20 (A bench conference was held outside the 14:53
21 hearing of the jury.)

22 MR. FINCH: I don't think I'm going to finish 14:53
23 with him today, but I would like to take stretch
24 break or something. The jury's getting a little
25 bit --

1 THE COURT: Yes, I was just thinking about 14:53
2 doing that.

3 MR. FINCH: Would it be okay to do that now? 14:53

4 THE COURT: Yes. 14:53

5 (Resumption of live trial proceedings.) 14:53

6 THE COURT: We're going to go off the record 14:53
7 for a couple minutes to give the jury a chance to
8 stand up, have all of this -- just take a break for
9 a moment. As I said yesterday, we were going to
10 end a little bit early today, and this'll give us a
11 chance to keep going without losing too much time.

12 (A brief recess was taken.) 14:57

13 THE COURT: Mr. Finch, you may begin. 14:59

14 MR. FINCH: May it please the Court. 14:59

15 BY MR. FINCH: 14:59

16 Q Last lap for today. 14:59

17 Dr. Rigler, let's talk about the total amount 14:59
18 of testing that your laboratory did of Johnson's
19 baby powder. And does this chart lay out the sort
20 of -- the two rounds of Johnson & Johnson testing
21 and also some testing you did of a cosmetic talc
22 product called Cashmere Bouquet?

23 MR. BICKS: Your Honor, again, the question 14:59
24 was that you did. And if we could just be clear
25 about what he did versus what others did.

1 THE COURT: I'll sustain the objection. 15:00

2 Q Could you explain for us the testing that was done 15:00
3 at MAS while you were the chief scientist there in
4 2017 through 2019 of Johnson's baby powder or
5 Cashmere Bouquet?

6 A Yes. This is representative of the samples that 15:00
7 were tested of Johnson's baby powder samples and
8 also Colgate-Palmolive Cashmere Bouquet samples.

9 Q Okay. So walk us through this chart here, 15:00
10 Dr. Rigler.

11 A Well, what we see here are three groups of testing 15:00
12 that the laboratory did. The label Round 1 is
13 testing that was done in 2017 through 2018. The
14 ore, the source of the ore talc material was from
15 Italy, Vermont, and also from China. So the
16 containers that were tested at the laboratory, the
17 source of the talc was from those locations, and
18 there were 36 of them.

19 The prep method that was used was the heavy 15:01
20 liquid density prep method, as you see there, and
21 also the TEM method was used.

22 Then in Round 2 -- 15:01

23 Q And the source of the containers tested, it says, 15:01
24 "Client samples, eBay/collector samples." What
25 does that mean?

1 A Yes. These were samples that were brought into the 15:01
2 lab, and the source materials came from collectors,
3 if you will. They're all kinds of collectors in
4 the world, all kinds of things, as you well know.
5 In fact, in the Kent cigarette case, I was amazed
6 to find at the beginning there were all kinds of
7 people that collect unopened cigarette packs.
8 They're out there.

9 So, of course, that was our objective, where 15:01
10 to get unopened cigarette packs for the testing we
11 did, and we were able to do that. So those are
12 some of the collector sources.

13 Q What's Round 2? 15:02

14 A Round 2 is another group of samples. These 15:02
15 included the archived or what are called historical
16 samples from Johnson & Johnson. Again, they were
17 sourced from Italian mines, Vermont mines, and also
18 from mines in China. 57 of those were done. They
19 were prepped in the same fashion, and PLM
20 microscopy was also done in addition to the TEM
21 that you see here.

22 And in the last group that you see labeled 15:02
23 Colgate-Palmolive, these were talc products named
24 Cashmere Bouquet. You may remember some of those
25 products if you have folks in your family that used

1 from -- possibly from Italy too for a short period
2 of time. But yeah, generally this is correct.

3 Q Now, for the first round -- 15:04

4 MR. FINCH: Can I go back to the PowerPoint, 15:04
5 Jon.

6 Q The first round of the Johnson & Johnson containers 15:04
7 tested, these obviously didn't come directly from
8 Johnson & Johnson; right?

9 A Correct. 15:04

10 Q And -- well, we're missing a slide. 15:04

11 MR. FINCH: Can I have the ELMO, Jon. 15:04

12 Q So of the 36 containers, does this explain where 15:05
13 that first batch came from?

14 A Yes. 15:05

15 Q Now, what did -- while you were at MAS, did you 15:05
16 have chain of control -- chain of custody
17 procedures for any kind of sample you were asked to
18 test from the time it got to the lab until it was
19 tested by the analysts?

20 A Yes, we do. 15:05

21 Q While you were at MAS, did MAS do asbestos product 15:05
22 testing, not only for lawyers for people who are
23 plaintiffs in asbestos litigation, but did you also
24 do testing for companies that made
25 asbestos-containing products?

1 A Yes. The laboratory did testing for companies that 15:05
2 made the products. It also did testing for
3 homeowners that wanted to know if there was
4 asbestos in the floor tile that they were about to
5 tear out or an insulation product. So there were
6 all kinds of clients that had products that they
7 wanted to have tested to see if they had asbestos.

8 Q And did the chain of custody procedures vary 15:06
9 depending on who the lab got the products from or
10 got the samples from?

11 A No. 15:06

12 MR. FINCH: Can I have the PowerPoint again, 15:06
13 Jon.

14 MR. BICKS: Can I have a copy when you -- of 15:06
15 that document you just used, if you have one?

16 MR. FINCH: This one? Sure. 15:06

17 MR. BICKS: Yeah. Thank you. 15:06

18 Q Was one -- could you just explain just generally, 15:06
19 briefly, what did you and the other people at MAS
20 do to verify the authenticity of the first batch of
21 Johnson's baby powder you were testing?

22 A The samples were compared to historical 15:06
23 documentation, photographs, that kind of thing, to
24 see if they matched up, were they the same kind of
25 product containers, did they have the same kind of

1 markings, did the weights appear to be correct,
2 that kind of thing. So, you know, some of these
3 went back to the '40s and '50s.

4 Q What else did you do to determine whether or not 15:07
5 the containers had been tampered with or changed in
6 some way before they were tested?

7 A We did some specialized testing for looking at 15:07
8 containers. For instance, you see in this image
9 where there is a seal that's a plastic seal around.
10 It's a little difficult to see, but where the
11 number 2755RB is, there's a plastic seal that's
12 there that has to be broken prior to opening that
13 container.

14 So the -- what we did was we broke -- we 15:08
15 photographed it before, and then we broke the seal
16 later on to see how it would be disturbed, what it
17 would look like. And then you could inspect any
18 kind of container like this later on to see if
19 there had been any kind of tampering with it. So
20 that was some of the testing that we did.

21 But these were designed to be tamper proof. 15:08
22 So if you had a container that was, you know,
23 sealed like this, you know that it never had been
24 opened.

25 Q What is a particle size distribution for a talc 15:08

1 product and how did you use that to analyze the
2 contents of what it is you were testing?

3 A The products themselves have -- they have a 15:08
4 character -- a particular range of size, if you
5 will. The manufacturer makes them according to a
6 certain kind of specification, but they're called
7 like a mesh size number it. And what it is is
8 those flat plate talc particles that we talked
9 about before, they want to get that product as
10 consistent as they possibly can.

11 So they have a range of particle size from 15:09
12 75 microns down -- it can be smaller, but what
13 they're trying to shoot for, a particle size that
14 sort of stays out of the respiratory range. So
15 what we did was we did a bunch of particle analysis
16 on a number of the products and matched them up,
17 and they matched up with what would have been that
18 kind of particle range, that size range. They were
19 consistent for their product.

20 Q What is this graphic showing us here? What is this 15:09
21 showing?

22 A That's actually showing a graph of -- on the top 15:09
23 left, you actually see in the scanning electron
24 microscope, you see talc particles. They are from
25 the Johnson & Johnson product. And you can see

1 that they look -- they look flat and they're platy.
2 They are flat. But they're irregular in size. And
3 what the analyst did was analyze these using a
4 specific algorithm to fit the shape and then
5 measure exactly what the shape parameter is. And
6 then once they figure out what the shape parameter
7 size was, they went ahead and graphed each one of
8 these types and categories onto the graph that you
9 see here.

10 So you've got the size range all the way down 15:10
11 to, I guess it's -- it looks like about 1 micron.
12 So the 1 micron is the blue bar at the very bottom.

13 Q Did you compare this to a control sample of 15:10
14 Johnson's baby powder to see if it was consistent?

15 A Yes. 15:10

16 MR. BICKS: And again, Your Honor, when he 15:10
17 says did you do it?

18 Q Did the analysts at your laboratory that you were 15:10
19 the chief scientist of --

20 A Yes. 15:10

21 Q -- compare this to a control sample? 15:10

22 A Yes, they did. 15:10

23 Q Round 2, did you and Dr. Longo do a series of 15:10
24 reports related to the 56 containers you got
25 directly from Johnson & Johnson of Johnson's baby

1 powder?

2 A Yes. 15:11

3 Q Have you summarized for us the results of testing 15:11
4 of Johnson & Johnson cosmetic talc products?

5 A Yes. 15:11

6 Q This is the Round 1 results. What percentage of 15:11
7 the containers, either bottles or tins, had
8 detectable levels of asbestos?

9 A Of the 36, 20 of them did, which is about 15:11
10 55 percent.

11 Q What were the types of asbestos that were found? 15:11

12 A There were specifically three major types. Well, 15:11
13 the tremolite, actinolite and anthophyllite. Now,
14 you see another term in there, it says richterite.
15 That's another form, if you will, of -- remember I
16 talked about the solvent solution series. This
17 form has some sodium with it. So it fit -- it fits
18 in the same category, in the same group.

19 Then there, of course, is the fiber size 15:12
20 range. The numbers that we found per gram range
21 from 7,000 up to 15 million fibers per gram in the
22 product. So there's an average fiber count there
23 for that -- for that range, which is 1,087,000.
24 But then if you take out the highest number,
25 because that can also, you know, maybe bias it high

1 and you just look at that average, then it's about
2 360,199. And the average aspect ratio was 12 to 1.
3 So everything fit, as it should, for that type of
4 asbestos.

5 Q What about the Round 2 results, not including the 15:12
6 Asian samples?

7 A Here again, in the 50 -- that's with that -- there 15:12
8 were 57 in that group, and seven of them were from
9 a Korean mine. Of those 50, 36 of them were
10 positive for asbestos, which is 72 percent.

11 Q The 50, not including the seven that came from 15:13
12 Korea, was the 50 that came from either Italy or
13 Vermont or China?

14 A Correct. 15:13

15 Q And what were the types of asbestos identified in 15:13
16 the Round 2, the containers you got directly from
17 Johnson & Johnson?

18 A As you can see, tremolite and anthophyllite were 15:13
19 the major asbestos types, anywhere from 7,240 per
20 gram up to 268,000. Average fiber count there,
21 37,000 per gram, and the aspect ratio was about 13
22 to 3. And you all are experts in aspect ratios.

23 Q Now, there's also something, recent source talc 15:13
24 with detectable asbestos from railroad car samples.
25 The jury hasn't heard about that yet. What were

1 the railroad car samples and what was done to them
2 and what was the results?

3 A These, again, are historical samples that were 15:14
4 actually taken from railroad car loads of talc that
5 were going to be processed to go into the Johnson's
6 baby powder products. And MAS laboratory tested 15
7 of these. So there again, historical samples,
8 their product that Johnson & Johnson was going to
9 use to make their product.

10 Q What were the types of asbestos found in the 15:14
11 railroad car samples of talc?

12 A Here again, tremolite and anthophyllite, 4,600 to 15:14
13 59,000 fibers per gram, averaged 19,462, and then
14 average aspect ratio of 17.7 to 1.

15 Q And combining across both rounds of testing, what 15:14
16 percentage of the containers had detectable
17 asbestos?

18 A 65 percent of them did. If you look at all the 15:15
19 containers, and then if you look at the railroad
20 car or the source containers, about 53 percent of
21 them had -- were positive for asbestos.

22 Q And again, this has the fibers per gram range from 15:15
23 low to high and the average aspect ratio?

24 A Yes, 4,600 to 15,000,100 fibers per gram, 15:15
25 tremolite, richterite, actinolite, anthophyllite,

1 and average aspect ratio, if you put them all
2 together, 12.7 to 1.

3 Q Can you give the jury an example of something that 15:15
4 would weigh a gram? How much is a gram of
5 something?

6 A You could think maybe of a sugar cube. Well, maybe 15:15
7 something a bit smaller than that. Yeah, something
8 like that.

9 Q So not a lot of material if I have anywhere from 15:16
10 4,000 to 15 million asbestos fibers per gram?

11 A Yeah, it wouldn't be much. 15:16

12 Q Did you also do an analysis of the Johnson & 15:16
13 Johnson testing where you, instead of dividing it
14 by Batch 1 and Batch 2, you divided it by the years
15 for the years it was Italian sourced talc, Vermont
16 sourced talc, and Chinese talc?

17 A Yes. We divide them up into the 1960s, the '70s, 15:16
18 the '80s, the '90s, and the 2000s.

19 MR. BICKS: Again, Your Honor, it's the "you" 15:16
20 and then the "we." And I don't think solving it
21 is, you while you were the chief science officer,
22 because we know what his role was at the last
23 hearing.

24 Q Dr. Rigler -- 15:16

25 THE COURT: I'll sustain the objection. 15:16

1 Q -- in the report that you co-authored with 15:16
2 Dr. Longo, did you do an analysis of what
3 percentage of the talc tested positive for
4 asbestos, you personally by you?

5 A Yes. 15:17

6 Q Did you do -- did you review every single 15:17
7 photomicrograph taken by the analysts, every count
8 sheet done by the analysts for all the reports
9 you've talked about here?

10 A That was part of my job, yes. 15:17

11 Q Did you do quality control for all of the reports 15:17
12 you've talked about here?

13 A Yes. 15:17

14 Q Did you from time to time sit down beside the 15:17
15 analysts while they were looking at a talc particle
16 or asbestos fiber found in a talc particle to
17 discuss with them what they were seeing?

18 A Many times, yes. 15:17

19 Q Did you -- during the time that this testing was 15:17
20 going on, how much -- what percentage of the time
21 were you in the laboratory?

22 A I was in the laboratory 99 percent of the time. 15:17

23 Q During the time that this testing was going on at 15:17
24 MAS, did you personally have discussions with both
25 the analysts and Dr. Longo about the analysis that

1 was being done and what the results were?

2 A Yes. 15:18

3 Q And did you author the reports, along with 15:18
4 Dr. Longo, of everything you've testified about
5 here today?

6 A I co-authored them, yes. 15:18

7 Q In the same way that you co-authored the scientific 15:18
8 paper that was published in the peer-reviewed
9 literature in 1995?

10 A Yes, sir. 15:18

11 Q Now, breaking it down by years or sources, what 15:18
12 percentage of the Italian sourced talc in Johnson's
13 baby powder was positive for asbestos?

14 A Well, up to 1967, the Italian type is 65 percent 15:18
15 positive.

16 Q What about for the Vermont sourced talc in the 1967 15:18
17 to 2003 time frame?

18 A 82 percent were positive. 15:18

19 Q And what about the Chinese talc? 15:18

20 A 39 percent. 15:18

21 Q Would it surprise you if any particular bottle 15:18
22 tested was a nondetect or no asbestos detected?

23 A That wouldn't surprise me. 15:19

24 Q Does the fact that a test registers no asbestos 15:19
25 detected or a nondetect mean that you could be a

1 hundred percent certain there's not asbestos there?

2 A You can't be a hundred percent certain because of 15:19
3 your detection limits.

4 Q So even if there was no asbestos detected by MAS, 15:19
5 that still doesn't mean there wasn't asbestos there
6 but at a level that's still there but below the
7 detection limit?

8 A Yes, that's possible, yes. 15:19

9 Q And the Cashmere Bouquet product, is it your 15:19
10 understanding that the source of Cashmere Bouquet
11 talc in the early '60s was the same mine that
12 Johnson & Johnson used?

13 MR. BICKS: Your Honor, I don't think, given 15:19
14 where we are, the relevance of Cashmere Bouquet,
15 I'm trying to understand, and I'm wondering if the
16 jury's going to be confused with that information.

17 MR. FINCH: Okay. I'll pass the Cashmere 15:19
18 Bouquet.

19 Q Let's turn now to -- 15:19

20 THE COURT: So you've withdrawn the question? 15:20

21 MR. FINCH: I've withdrawn the question. 15:20

22 BY MR. FINCH: 15:20

23 Q Historical testing of Johnson's baby powder. There 15:20
24 was a lot of discussion by Mr. Bicks in opening
25 statement about lots and lots and lots of testing

1 done of Johnson's baby powder, never, ever, ever
2 any asbestos ever found in baby powder, and that
3 there was -- the talc has always, always, always
4 been asbestos free. I want you to assume that was
5 stated in opening.

6 MR. BICKS: Your Honor, I'd just object. It's 15:20
7 argumentative and improper use of an opening.

8 MR. FINCH: All right. 15:20

9 MR. BICKS: Can he just ask a question? 15:20

10 THE COURT: I'll sustain that. 15:20

11 BY MR. FINCH: 15:20

12 Q Have you reviewed Johnson & Johnson's historical 15:20
13 testing of its baby powder and its talc, including
14 testing done by its outside laboratories, such as
15 McCrone?

16 A Yes. 15:21

17 Q And do you have an opinion as to why there are so 15:21
18 many nondetects or no asbestos detected in the
19 Johnson & Johnson and McCrone's tests?

20 A They -- there are a number of reasons. It's kind 15:21
21 of obvious.

22 Q Well, then could you lay them out for us? 15:21

23 A Well, they didn't -- they didn't do any heavy 15:21
24 liquid separation work.

25 Q Why is that important? 15:21

1 A Again, to detect these low levels and to separate 15:21
2 the talc so that you can count the asbestos. It's
3 very important. So that's one reason.

4 Q What's another reason why there were so many 15:21
5 nonasbestos detected or nondetects?

6 A Their detection limits were high. And that may not 15:21
7 seem like it means something, but understand that
8 in their TM7024, Johnson & Johnson's own protocol
9 for testing, if you didn't find at least 5 asbestos
10 fibers in your analysis, then it didn't exist. So
11 what that means is that you see the asbestos fibers
12 that have been counted by the laboratory, and when
13 you do the calculation to how many per gram, that
14 kind of thing, five is very significant.

15 Because of the way that they did this, you 15:22
16 would essentially -- if you just had four fibers,
17 just four, and you said, well, you know, how many
18 is that really? That can come to tens of
19 thousands, if not millions, of fibers in the
20 product that they would say didn't exist. They
21 didn't exist. Unless we found five, they didn't
22 actually exist. And that's actually part of their
23 testing protocol. So that's one reason why they
24 didn't find it, and that's what we call very high
25 detection limits.

1 So MAS's detection limits, because of the 15:23
2 heavy liquid separation is in the range, you've
3 seen some of the numbers here, 7,000 structures.
4 If you find just a few of them, 7,000. And so they
5 would have to find, in some cases, tens of millions
6 of them before they'd say yes, there's something in
7 our product.

8 Q There's -- right at the beginning of your direct, 15:23
9 it was a couple hours ago now, you talked about
10 x-ray diffraction. I guess it's been longer than a
11 couple of hours.

12 A Yes. 15:23

13 Q But how, if at all, did the use of x-ray 15:23
14 diffraction play into all these nondetects?

15 A The -- you have to understand that for talc 15:23
16 products, because talc is also being used in
17 pharmaceutical applications and cosmetics, that
18 kind of thing, that there was a specification for
19 testing them. And there was a group called the
20 Cosmetic -- CFTA, I believe the cosmetic fragrance
21 association, and what they did was they used a
22 specific testing method which is from the U.S.
23 Pharmacopeia, which is the outfit that sets
24 standards for drug testing. U.S.P., you've seen
25 that if you take a bottle of aspirin or whatever,

1 it has U.S.P. on there.

2 What that means is it tests according to their 15:24
3 specification. It tests according to the drug
4 manufacturer's specification, U.S.P. So there's a
5 talc specification for that. And one of the
6 testing parameters was called XRD, x-ray
7 diffraction. Remember that square machine in the
8 one image that we showed earlier on. So x-ray
9 diffraction.

10 The problem with x-ray diffraction is it's 15:24
11 very limited. You can maybe see down to a tenth of
12 a percent of asbestos, which is not very much. So
13 if it's less than a tenth of a percent, that's a
14 lot by TEM, and the x-ray diffraction technique
15 would miss that. But that's part of their
16 specification. X-ray diffraction is a part of
17 their specification. So that's why they could miss
18 it.

19 Q Okay. Let's go through a few documents from 15:25
20 Johnson & Johnson's files or the CTFA that
21 illustrate this.

22 MR. FINCH: Can I have Exhibit 619? 15:25

23 May I approach, Your Honor. 15:25

24 THE COURT: Yes. And has this been stipulated 15:25
25 to?

1 MR. FINCH: I believe it's been -- 15:25

2 MR. BICKS: No. We haven't. 15:25

3 MR. FINCH: This is a document on Johnson & 15:26

4 Johnson letterhead dated February 28, 1975.

5 MR. BICKS: Right. But he's not a witness 15:26

6 with foundation to use this unless --

7 MR. FINCH: I can lay a foundation. 15:26

8 BY MR. FINCH: 15:26

9 Q Doctor -- 15:26

10 MR. FINCH: First of all, do you have any 15:26

11 objection to the admissibility of the document?

12 MR. BICKS: I just don't think he's got a 15:26

13 foundation to talk about the document, so it
14 couldn't be admitted here.

15 MR. FINCH: May I lay a foundation, Your 15:26

16 Honor?

17 THE COURT: Yes. 15:26

18 BY MR. FINCH: 15:26

19 Q Dr. Rigler, have you seen Plaintiffs' Exhibit 619 15:26

20 before?

21 A I'd have to see it. 15:26

22 Q Yeah. 15:26

23 A Yes. 15:26

24 Q It's a document on Johnson & Johnson letterhead 15:26

25 dated February 28, 1975?

1 A Yes. 15:26

2 Q It's a discussion of the review of CTFA methodology 15:26
3 for the detection of asbestos in talc as well as
4 comments on the TPF methodology?

5 A Yes, sir. 15:26

6 Q Is it a document that you have relied on in at 15:26
7 least in part for some of your opinions with
8 respect to this case?

9 A Well, in reference to x-ray diffraction as a 15:27
10 technique.

11 Q Also, is it a document that on the last page -- 15:27
12 without showing it to the jury, could you go to the
13 last page. Does it discuss a concentration
14 technique in paragraph 4?

15 A Yes, it does. 15:27

16 Q And you're familiar with that part of the document? 15:27

17 A Yes, sir. 15:27

18 Q Does that inform your opinions, at least in part, 15:27
19 in this case?

20 A Yes, sir. 15:27

21 MR. FINCH: Your Honor, I would offer at this 15:27
22 point Exhibit 619. I don't believe there's any
23 dispute as to its authenticity or that it's a
24 Johnson & Johnson document. And I believe this
25 witness has established the foundation to testify

1 about it.

2 THE COURT: Any objection? 15:27

3 MR. BICKS: No objection. 15:27

4 THE COURT: All right. The Court shows 15:27

5 Exhibit 619 admitted without objection.

6 MR. FINCH: Okay. Can I have the ELMO, Jon. 15:27

7 Q All right. So this is Plaintiffs' 619. And am I 15:27
8 right, this is sort of the time frame when the CTFA
9 is coming up with the x-ray diffraction as a
10 methodology to test talc?

11 A Yes. 15:28

12 Q This is from Robert Rolle at Johnson & Johnson, on 15:28
13 Johnson & Johnson letterhead, to Ian Sloan at
14 Johnson & Johnson in Great Britain; right?

15 A Yes. 15:28

16 Q And the letter was written by somebody in New 15:28
17 Brunswick, New Jersey? You see that? On the ELMO?

18 A Yes, sir. 15:28

19 Q Oh, sorry, yes. 15:28

20 MR. BICKS: Did you ever -- 15:28

21 MR. FINCH: I thought you had a copy? 15:28

22 MR. BICKS: No, I do. But the foundation with 15:28
23 him to narrate through the documents, there's no
24 foundation for that.

25 MR. FINCH: Your Honor, I thought I laid a 15:29

1 foundation, and you had overruled the objection.

2 THE COURT: Well, he didn't -- the Court 15:29
3 admitted it without objection.

4 MR. BICKS: Right. 15:29

5 THE COURT: And you're objecting that there's 15:29
6 no foundation for the witness to discuss the
7 document?

8 MR. BICKS: To start saying who wrote the 15:29
9 document, where are they from. He won't know any
10 of that.

11 THE COURT: The witness -- I'll overrule that. 15:29
12 The witness testified he had viewed the document
13 and was familiar with it.

14 BY MR. FINCH: 15:29

15 Q All right. Turning now to paragraph 4 on the last 15:29
16 page of the document. First of all, you said that
17 you relied on this in part because there was a
18 description of the CTFA, what eventually became the
19 CTFA J4-1 technique?

20 A Yes. 15:29

21 Q And that's the x-ray diffraction? 15:29

22 A Yes, sir. 15:29

23 Q And that only allows, at least at the time, a 15:29
24 detection down to .2 percent or something?

25 A Yeah, .11 percent. 15:29

1 Q And then the last page of the document, "We are 15:29
2 presently practicing evaluating the Pooley
3 flotation method so we are not in a position to
4 recommend it at this time. Besides, we feel that a
5 detectability limit with our two present methods of
6 0.5 percent to 1 percent is reasonable and provides
7 us a safety margin of 48,300 (see report August 15,
8 1974). Our major problem with the Pooley procedure
9 is that since one can continually recycle tailings
10 (concentrate) given enough time, it is possible to
11 arrive at levels of detectability of asbestos in
12 talc in the parts per million range - at what stage
13 of recycling do you stop? We really want to
14 exclude concentration techniques in any proposed
15 analytical procedure and are really looking at the
16 method very quietly so that we will be informed and
17 up-to-date with this area of technology. We want
18 to avoid promotion of this approach."

19 Did I read that right? 15:31

20 A Yes. 15:31

21 Q Is that a description of a potential heavy liquid 15:31
22 separation method, in your opinion as a
23 professional material scientist?

24 A Yes. It's a concentration method, yes. 15:31

25 Q Based on the TEM testing specifications, which is 15:31

1 in Plaintiffs' Exhibit 38, was there any -- ever
2 any requirement for Johnson & Johnson or its --
3 anyone who was following 7024 to do a heavy liquid
4 concentration preparation first?

5 A No, they didn't do that. 15:31

6 MR. FINCH: May I have Plaintiffs' 15:31
7 Exhibit 185.

8 May I approach? 15:32

9 THE COURT: Yes. 15:32

10 BY MR. FINCH: 15:32

11 Q Dr. Rigler, are you familiar with Plaintiffs' 15:32
12 Exhibit 185?

13 A Yes. 15:32

14 Q This is the final CTFA method J4-1? 15:32

15 A Yes. 15:32

16 Q Asbestiform amphibole materials in cosmetic talc? 15:32

17 A Yes. 15:32

18 Q Is that the x-ray diffraction method you were 15:32
19 referring to a few minutes ago?

20 A Early on, yes. 15:32

21 Q This is a document that came from the files of 15:32
22 Johnson & Johnson?

23 A Yes. 15:32

24 MR. FINCH: Your Honor, we'd offer Plaintiffs' 15:32
25 Exhibit 185.

1 MR. BICKS: No objection. 15:32

2 THE COURT: The Court shows Plaintiffs' 15:32

3 Exhibit 185 admitted without objection.

4 BY MR. FINCH: 15:32

5 Q This is the method that the talc industry, the 15:33

6 cosmetic talc industry chose to follow to look for

7 asbestos in talc; is that correct?

8 A To my knowledge, it is, yes. 15:33

9 Q This chart, or I guess an engineer would call that 15:33

10 a flowchart maybe.

11 A Yes. 15:33

12 Q Or maybe they wouldn't, but what is this chart on 15:33

13 the bottom? What is it showing us?

14 A It shows that the process for analyzing talc, 15:33

15 starting with x-ray diffraction, if none is

16 detected by x-ray diffraction, stop. We won't go

17 any further. Just stop. If you do find something,

18 then you move on to optical microscopy and

19 dispersion staining.

20 Q And at this stage of x-ray diffraction, if there is 15:33

21 amphibole present below .5 percent, do you just --

22 what happens?

23 A Stop. You don't do anything. 15:34

24 Q So if -- and you don't even test to see whether 15:34

25 it's asbestos amphibole or not asbestos amphibole?

1 A You just stop. 15:34

2 Q So if you have a lot of talc -- and by "lot," I 15:34
3 don't mean a big amount, but say a railroad car
4 full of talc, and there was actually asbestos there
5 at a level of .01 percent concentration, and you
6 tested it a million times, using x-ray diffraction,
7 would you ever detect the asbestos that was there?

8 A No. 15:34

9 Q Now, you mentioned the high cutoff values in terms 15:34
10 of how many asbestos structures have to be present
11 before you would call something as testing positive
12 for asbestos. Do you remember telling the jury
13 about that?

14 A For the Johnson & Johnson. 15:35

15 Q And this is Exhibit 38 already. 15:35

16 MR. BICKS: And Your Honor, just so -- when we 15:35
17 keep talking about the Johnson & Johnson method,
18 are we including TEM as well or are we just talking
19 about CTFA 41? Because this is kind of misleading.

20 MR. FINCH: This is -- I'm talking about -- 15:35

21 A 7024. 15:35

22 MR. FINCH: -- 7024 is Johnson & Johnson -- 15:35

23 Q What is the title of this document, Dr. Rigler? 15:35

24 A "Analysis of Powder Talc for Asbestiform Minerals 15:35
25 by Transmission Electron Microscopy."

1 Q So are we talking about electron microscopes? 15:35

2 A Yes. 15:35

3 Q And this is Johnson & Johnson's -- 15:35

4 THE COURT: Is there an objection? 15:35

5 MR. BICKS: No, Your Honor. 15:35

6 THE COURT: All right. Thank you. 15:35

7 Q This is Johnson & Johnson's method, whenever it 15:35
8 used, or McCrone used, an electron microscope, this
9 is the method they followed from whenever this
10 began in the '70s, all the way up to whatever the
11 most recent document we have?

12 A Yeah, this is the method with, if you didn't count 15:36
13 at least five structures, that it wasn't there.

14 Q So there's a few things about this document. The 15:36
15 jury's already seen, and they'll have this one
16 back. The jury's already seen Johnson & Johnson's
17 definition of a fiber; elongated particle with
18 parallel sides and an aspect ratio bigger -- longer
19 than three to one; right?

20 A Yes. 15:36

21 Q Now, in Section 6.0, "Limit of Quantifiable 15:36
22 Detection."

23 A Yes. 15:36

24 Q "The detection of five or more asbestiform minerals 15:37
25 of one variety in an analysis constitutes a

1 quantifiable level of detection. When no
2 asbestiform minerals are detected, a representative
3 fiber size is used to calculate the detection
4 limit."

5 What -- as a scientist, what is your
6 understanding of a limit of quantifiable detection
7 when you have a five fibers of one variety limit?

15:37

8 A Well, you've limited yourself to, say, if we don't 15:37
9 find five fibers of one variety, that, you know,
10 it's not a quantifiable level.

11	Q	Have you done a calculation as to the total	15:37
12		asbestos fiber concentration per gram of Johnson's	
13		baby powder that would be below the limit of	
14		quantifiable detection per this standard?	

15 A Yes. 15:37

16 MR. BICKS: Can I just have the foundation as 15:37
17 to when that was done?

18	Q	When did you do these calculations?	15:38
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19	A These calculations were done, I believe, while I	15:38
20	was still at MAS.	

21	Q	So --	15:38
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22 | A It's been quite a while. | 15:38

23	Q	-- at least prior to May of last year?	15:38
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24 | A Yeah, somewhere in that amount of time. | 15:38

25 MR. BICKS: Can I just have a representation 15:38

1 that those were disclosed in his expert report?
2 Because I didn't see them in the case.

3 MR. FINCH: They were in the -- I believe they 15:38
4 were disclosed, Your Honor. I don't know if it was
5 in the expert report, but in all of the backup
6 materials that were disclosed, these calculations
7 were disclosed.

8 A Yeah, there's a calculation in there. It's 15:38
9 calculated for four fibers of one type of asbestos,
10 four fibers of two types of asbestos, four fibers
11 of three types of asbestos, and the calculations
12 are done like that.

13 Q Can you replicate those calculations now? If you 15:38
14 had four fibers of tremolite, would that count
15 as -- in a gram of -- four fibers in a gram, would
16 that count as a detectable level of asbestos under
17 this method?

18 A No. 15:39

19 Q And what is -- if there were four fibers in the 15:39
20 grid, what would that mean in terms of tremolite
21 fibers per gram of talc?

22 A Well, I don't remember the exact numbers, but it 15:39
23 would be -- it would be tens of thousands of
24 fibers, maybe hundreds of thousands. Possibly
25 millions. So again, I don't remember right off the

1 top of my head, but a calculation was done.

2 This particular method that they use does it 15:39
3 on a weight percentage, and I don't want to
4 complicate it or confuse you guys, but there --
5 this calculation is done in a different way. What
6 the health authorities believe, the calculations
7 should be done on single fiber, on fibers, on
8 bundles, on single ones.

9 This is done by taking a single fiber, 15:40
10 figuring out what the mass of that is, and then
11 basing your counts on that. And that's -- that can
12 be very misleading as to the number of fibers or
13 structures that are actually in it. But this is
14 the way that Johnson & Johnson has chosen to do it,
15 to do it by a weight percentage.

16 So once again, it's a representation, though 15:40
17 you can do it this way, but it doesn't give you the
18 impact or the idea of how many actual fibers or
19 structures are in the product. It'll just give you
20 a weight percentage. So those are some of the
21 major differences there.

22 MR. FINCH: Your Honor, I note the time. 15:40
23 We're getting close to the end, but we're certainly
24 not going to be done in time for our stopping time.
25 So I'm getting ready to move to a different area.

1 And we will be wrapping up in the next hour or so,
2 but we made a commitment to one of our jurors, and
3 I would request respectfully that we cease for the
4 day.

5 THE COURT: Yes. Thank you. Then we'll 15:41
6 conclude for the day. And as always, we'll
7 conclude with our admonition.

8 We are now going to take a break for the day 15:41
9 and for the weekend. Please be back at 9 a.m.
10 Monday morning.

11 Before we recess, I have told you not to talk 15:41
12 about the case and to keep an open mind concerning
13 it. You are not to discuss the evidence or the
14 case with anyone else, and you are not to permit
15 anyone else to discuss the case with you or to talk
16 about it in your presence on any subject or matter
17 connected with the trial.

18 It is your duty to keep an open mind about the 15:41
19 case until it is submitted to you for final
20 deliberation. If anyone tries to discuss the case,
21 get their name and report it to the Court.

22 Furthermore, during a recess, you are not to talk
23 to any of the attorneys, staff, or witnesses about
24 anything, not even to pass the time of day.

25 In addition, jurors are not allowed to read 15:42

1 anything concerning any of the parties or products
2 in the case. This includes simply reading the
3 paper, listening to the radio, or internet articles
4 that seem to pop up everywhere. Also, you may not
5 Google anything or anyone concerning the parties or
6 products involved in this case. You may be and
7 must appear to be impartial at all times during the
8 trial.

9 Lastly, there is no -- the Indiana Code of 15:42
10 Judicial Conduct prohibits broadcasting,
11 televising, recording, or taking photographs in the
12 courtroom or adjacent areas.

13 So with these admonitions, you are released 15:42
14 for the weekend, and we look forward to seeing you
15 Monday morning at 9 a.m.

16 (Whereupon, the jury exited the courtroom.) 15:42

17 THE COURT: While we're still on the record, 15:43
18 just a few housekeeping matters, and then if there
19 are any matters that the parties would like to
20 discuss with the Court, of course we can do so.

21 This morning the Court permitted a recross, 15:43
22 and the Court's not going to do that anymore. So
23 just going forward, so everybody is clear about
24 that, if one party exceeds the scope of cross on
25 redirect, then you just have to object in a timely

1 fashion.

2 And just so that I'm clear, the parties intend 15:43
3 to submit briefing on whether the balance of the
4 item that was partially admitted into court today
5 can be admitted in full. So I'll receive that
6 sometime over the weekend?

7 MR. BICKS: Yes. 15:44

8 THE COURT: Now, lastly, as to page and line 15:44
9 designations, will I be receiving those, and if so,
10 when?

11 MS. FARINAS: Your Honor, what is your -- just 15:44
12 to back up to the last one, I wrote down when we
13 were talking about that earlier that you gave
14 defendants till noon on Sunday to file their
15 briefing and us till noon on Monday to file the
16 response on the FDA -- the recall issue, the
17 document.

18 THE COURT: Yes. Because Monday is all 15:44
19 Dr. Hopkins, is that correct?

20 MS. FARINAS: I just wanted to be clear that 15:44
21 our response was not also due, like, Sunday night
22 at midnight or something like that.

23 And then with respect to the page and lines on 15:44
24 Melody's deposition, I was talking earlier with
25 Todd Barnes from our office who has been doing it,

1 and I think perhaps the best option is to have --
2 maybe we can come to an agreement on a highlighted
3 deposition that has the different portions that are
4 at issue, that then for each side to submit written
5 objections to the page and lines that are offered
6 by another party with their objection written out
7 and a column for you to rule on those objections.
8 I think that's going to be the best way to actually
9 get some clarification and some rulings. That
10 would be our suggestion, Your Honor.

11 THE COURT: And you intend to play her video 15:45
12 on Wednesday?

13 MS. FARINAS: Yes, Your Honor. 15:45

14 THE COURT: Personally I would like to have 15:45
15 those over the weekend so I can do it on Sunday,
16 because Monday and Tuesday I would expect to be in
17 court.

18 MS. FARINAS: And we can make that happen. 15:45

19 THE COURT: So if you could submit them Sunday 15:45
20 at noon.

21 MS. FARINAS: Sunday at noon as well for 15:45
22 those?

23 THE COURT: Sunday by noon. 15:45

24 MR. FINCH: And with respect to Hopkins, I am 15:45
25 advised that there's only a handful of potential

1 objections. I'm going to be in communication with
2 counsel for Johnson & Johnson over the weekend,
3 either Saturday or Sunday, see if we can work that
4 out. If we can't, I don't anticipate we'd need
5 more than, what, 10, 15 minutes of argument time.

6 MS. MALIK: Yes, Your Honor. 15:46

7 THE COURT: Yeah, I took a look at them, and 15:46
8 there aren't very many.

9 MS. FARINAS: And the only other deposition, I 15:46
10 think, that's coming up as well is a deposition of
11 Alice Blount that we would like to enter into
12 evidence as well. I think there could be
13 potentially a few more arguments with respect to
14 that. We can try to reach out and discuss that as
15 well this weekend and get the positions.

16 THE COURT: I don't have her on my list. When 15:46
17 did you want to play that deposition?

18 MS. FARINAS: It would be after Hopkins at 15:46
19 some point.

20 MR. FINCH: It would be after Hopkins is over, 15:46
21 after Rigler is over.

22 THE COURT: So after -- 15:46

23 MR. GREENE: Later on in the week. 15:46

24 MS. MALIK: It's not very long. 15:46

25 MR. FINCH: No, it's not. 15:46

1 MS. FARINAS: It's very small. 15:46

2 MR. GREENE: Some of those objections, Your 15:46
3 Honor, to what the plaintiffs want to play are
4 essentially the same objection throughout. So once
5 the Court makes a conclusion, we'll know most of
6 what's in or out.

7 THE COURT: So do that Monday? 15:47

8 MS. FARINAS: We can find a hole on Monday. 15:47

9 THE COURT: If you want to play it on Tuesday, 15:47
10 we can do that Monday sometime.

11 MS. FARINAS: We can talk over the weekend and 15:47
12 find a hole on Monday to talk about anything that
13 we need to.

14 THE COURT: Anything else? 15:47

15 MR. BICKS: I would just notify the Court and 15:47
16 opposing counsel that with Kerr departing and each
17 party reserving the right to call any expert
18 retained by another defendant, that we're inclined
19 to likely call Dr. Roggli and probably likely not
20 call Dr. Chireac. So that's --

21 MR. FINCH: Your Honor, I took Roggli's -- 15:47
22 Dr. Roggli's deposition and he specifically said he
23 was only working for Kerr in this case, he was not
24 working for Johnson & Johnson. I don't think it is
25 fair or proper for them to now call him as their

1 expert. If they were to have designated him as
2 their expert, I would have done a somewhat
3 different deposition of Dr. Roggli.

4 I don't think -- I mean, yes, you can have a 15:48
5 right to -- reserve the right to call another
6 side's expert, but that's if the expert is properly
7 disclosed. And he was not -- in his opinions, he
8 did not say -- when I asked him, he said he was
9 giving opinions about Kerr dental tape for this
10 case and he wasn't working for Johnson & Johnson or
11 Cashmere Bouquet for that matter.

12 So I think we would be prejudiced for them to 15:48
13 call him as an expert witness in their case when he
14 was designated by Kerr and he told me under oath in
15 his deposition he was only working for Kerr and
16 wasn't going to be working for Johnson & Johnson.
17 I think that is prejudicial because I would have
18 done a somewhat different cross-examination of him
19 at the deposition.

20 MR. BICKS: We're using him on the exact topic 15:48
21 that you did depose him on, his finding of an
22 asbestos body. And we expressly reserved the
23 right --

24 THE COURT: I'm sorry, his what? 15:49

25 MR. BICKS: The finding of the asbestos body. 15:49

1 It's a very short examination, and it is what you
2 deposed him on. The part about the Kerr exposures,
3 that's a whole nother issue. We're obviously not
4 getting into that. And in our filing with the
5 Court that everybody has, we stated that we
6 expressly reserved the right to call any expert
7 witness designated by any other party to this
8 action, including any defendant subsequently
9 dismissed from the action. And there's no
10 surprise. It's the same topic that you examined
11 him on.

12 MR. FINCH: Can I confer with my co-counsel 15:49
13 and think over the weekend what our position is
14 going to be on this, Your Honor?

15 THE COURT: Yes. And can the Court have -- 15:49

16 MR. FINCH: You said somebody is going to be 15:49
17 showing up next week. Is he --

18 MR. BICKS: I'm just trying to give the Court 15:49
19 a heads-up because, honestly, with all the
20 deposition stuff, I can anticipate we're going to
21 have a problem. So I'm focusing on Friday, a week
22 from today, to make sure that we've got everything
23 in order for the Court. So I'm focusing a week out
24 so the Court knows what's going on it.

25 And Your Honor -- 15:50

1 MS. MALIK: The same day he was going to come. 15:50

2 MR. BICKS: The same day he had been 15:50
3 previously scheduled to come is on that day.

4 MR. FINCH: Okay. I will consult with my boss 15:50
5 and my brains over here --

6 THE COURT: Very good. 15:50

7 MR. FINCH: -- and give you a -- 15:50

8 THE COURT: Is there a TID as to the portion 15:50
9 of his deposition, so the Court would like to look
10 at it so in case there is any argument as to
11 prejudice?

12 MR. BICKS: Sure. 15:50

13 MS. FARINAS: I don't think it's filed on the 15:50
14 system, Your Honor. Perhaps J & J could upload it
15 to the deposition docket for you.

16 MS. MALIK: Sure. 15:50

17 THE COURT: Or if it's short -- sure. Just do 15:50
18 this. And then if you make an objection, I'll know
19 where to go. Thank you.

20 Okay. So anything else? 15:50

21 MS. FARINAS: No, I think that threw us for a 15:50
22 loop before the end of the day.

23 THE COURT: Well, thanks very much. We can go 15:50
24 off the record.

25 (The proceedings concluded at 3:50 p.m.) 15:51

1 STATE OF INDIANA

2 COUNTY OF HENDRICKS

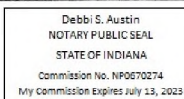
3
4 I, Debbi S. Austin, a Notary Public in and for
5 said county and state, do hereby certify that on the
6 18th day of October, 2019, I took down in stenograph
7 notes the foregoing proceedings in the aforementioned
8 matter;

9 That said proceedings were taken down in
10 stenograph notes and afterwards reduced to typewriting
11 under my direction; and that the typewritten
12 transcript is a true record of the proceedings;

13 I do further certify that I am a disinterested
14 person in this cause of action; that I am not a
15 relative of the attorneys for any of the parties.

16 IN WITNESS WHEREOF, I have hereunto set my
17 hand and affixed my notarial seal this 18th day of
18 October, 2019.

19
20 



21
22
23 My Commission Expires:
24 July 13, 2023
25

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