

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

RSB SPINE, LLC, :
Plaintiff, :
v. : C.A. No. 18-1972-RGA
LIFE SPINE, INC., :
Defendant. :

RSB SPINE, LLC, :
Plaintiff, :
v. : C.A. No. 18-1973-RGA
MEDACTA USA, INC., :
Defendant. :

RSB SPINE, LLC, :
Plaintiff, :
v. : C.A. No. 18-1974-RGA
PRECISION SPINE, INC., :
Defendant. :

1 RSB SPINE, LLC, :
2 Plaintiff, :
3 v. : C.A. No. 18-1976-RGA
4 XTANT MEDICAL HOLDINGS, :
5 INC., :
6 Defendant. :

7 -----

8 RSB SPINE, LLC, :
9 Plaintiff, :
10 v. : C.A. No. 19-1515-RGA
11 DEPUY SYNTHES SALES, :
12 INC., and DEPUY SYNTHES :
13 PRODUCTS, INC., :
14 Defendants. :

15 -----

16 Videotaped Expert Deposition of
17 TROY D. DREWRY
18 Washington, D.C.
19 Thursday, March 5, 2020
20 9:06 a.m.

21 Job No. 48537

22 Reported by: Donna A. Peterson, Notary Public

1 The Videotaped Expert Deposition of TROY

2 D. DREWRY, taken at the law offices of:

3

4 COOLEY, LLP

5 14th Floor

6 11951 Freedom Drive

7 Reston, Virginia 20190-5640

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14 Pursuant to Notice, before Donna A.

15 Peterson, Notary Public in and for the District of

16 Columbia.

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1 C O N T E N T S

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8 E X H I B I T S

9 (All exhibits attached to the transcript.)

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13	Exhibit 2	Picture of an Atlantis plate	23
14	Exhibit 3	U.S. Patent No. 9,713,537	40
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1 P R O C E E D I N G S

2 THE VIDEOGRAPHER: We're on the record.

3 This is Video Number One in the video-recorded
4 deposition of Troy Drewry, taken by Defendants in the
5 matter of RSB Spine, LLC, Plaintiffs, verse Life
6 Spine, Inc., Defendants, consolidated cases Number
7 18-1972 and '73, '74, '76, as well as 19-1515-RGA,
8 pending before the United States District Court For
9 The District of Delaware.

10 This deposition is being held at the law
11 office of Cooley, located Reston Town Center, 11951
12 Freedom Drive, Reston, Virginia, on March 5th, 2020.
13 The time is 9:08 a.m.

14 My name is Nancy Holmstock, video
15 operator, representing the firm of Henderson Legal
16 Services. The court reporter today is Donna
17 Peterson, in association with Henderson Legal
18 Services.

19 For the record, will counsel now please
20 introduce themselves and whom you represent.

21 MR. PIETRANTONIO: Frank Pietrantonio,
22 from Cooley, on behalf of RSB Spine and the witness.

Henderson Legal Services, Inc.

202-220-4158

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Petitioners 1022-9

Medacta USA, Precision Spine, Life Spine v. RSB Spine, LLC

IPR2020-00264

1 MR. KNIGHT: Dustin Knight, on behalf of
2 RSB Spine and the witness, for Cooley.

3 MR. GRIFFITH: Calvin Griffith, with Jones
4 Day, on behalf of the DePuy Defendants.

5 MR. BREETZ: Robert Breetz, with Jones
6 Day, for DePuy.

7 MR. SHERWIN: Scott Sherwin, from Morgan
8 Lewis, and I represent Medacta.

9 MR. KRITSAS: I'm James Kritsas, from
10 Morgan Lewis, and I also represent Medacta. And on
11 the line, we also have Jason White, from Morgan
12 Lewis, on behalf of Medacta.

13 MS. DeFRANCO: Denise DeFranco, from
14 Johnson & Johnson.

15 THE VIDEOGRAPHER: Will the court reporter
16 please administer the oath.

17 Thereupon,

18 TROY D. DREWRY,
19 was called as a witness by counsel for Defendants
20 DePuy Synthes Sales, Inc. and DePuy Synthes Products,
21 Inc., and having been duly sworn by the Notary
22 Public, was examined and testified as follows:

1 MR. GRIFFITH: Should we have the folks on
2 the line introduce themselves?

3 THE VIDEOGRAPHER: Yes, please.

4 MS. BERGER: This is Stephanie Berger, at
5 Devlin Law Firm, for Defendant Precision Spine.

6 MR. PETERS: Matt Peters, of Foley and
7 Lardner, for Defendant Life Spine.

8 EXAMINATION BY COUNSEL FOR DEFENDANTS

9 DePUY SYNTHES SALES, INC., and

10 DePUY SYNTHES PRODUCTS, INC.

11 BY MR. GRIFFITH:

12 Q. Good morning.

13 A. **Good morning.**

14 Q. Please state your full name, for the
15 record.

16 A. **Troy D. Drewry.**

17 Q. What is your home address?

18 A. **4229 Waymar Drive, Memphis, Tennessee**
19 **38117.**

20 Q. And what is your work address?

21 A. **I'm a consultant, I work out of my house.**

22 **And then I'm also a professor at practice at the**

1 **University of Mississippi in Oxford, Mississippi.**

2 Q. Have you had your deposition taken in
3 other cases previously?

4 A. **Yes, sir.**

5 Q. About how many times?

6 A. **Seven or eight, I believe.**

7 Q. And when was the last time you had your
8 deposition taken?

9 A. **Several months ago.**

10 Q. Okay. Is it "Dr." Drewry --

11 A. **No.**

12 Q. -- "Mr." Drewry?

13 A. **"Mr." Drewry.**

14 Q. Okay. Mr. Drewry, if you don't understand
15 a question I ask, please let me know, I'll do what I
16 can to try to clear it up. Okay?

17 A. **Yes, sir.**

18 Q. And if you answer a question, I'm going to
19 assume that you understood it. Is that fair?

20 A. **That's fair.**

21 Q. And you understand the testimony you're
22 providing today is under oath?

1 **A. Yes.**

2 Q. Is there any reason that you can't or
3 would be unable to give truthful and honest testimony
4 today?

5 **A. No.**

6 **(Drewry deposition Exhibit Number 1 was**
7 **marked for identification and attached to the**
8 **transcript.)**

9 MR. GRIFFITH: I'm going to hand you a
10 copy of what's been marked as Drewry Exhibit 1.

11 MR. PIETRANTONIO: Thank you.

12 BY MR. GRIFFITH:

13 Q. And I will represent to you this is a copy
14 of the Expert Declaration Of Troy D. Drewry On Claim
15 Construction. Do you recognize that?

16 **A. Yes.**

17 Q. And can you turn to page 16. Is that your
18 signature?

19 **A. Yes, sir, it is.**

20 Q. Did you review this declaration to prepare
21 for your deposition today?

22 **A. Yes, sir, I did.**

1 Q. And do you understand that the short name
2 for the two patents in suit of RSB in this case are
3 the '234 patent and the '537 patent?

4 A. Yes, sir.

5 Q. And did you review those two patents to
6 prepare for your deposition today?

7 A. Yes, sir, I did.

8 Q. What exactly were you asked to do when RSB
9 retained you to assist with claim construction?

10 A. I will again relying on my declaration for
11 consistency. I was retained by them to provide
12 opinions related to particular terms in the
13 construction of the claims for the '234 and the '537
14 patent.

15 Q. Did you write your expert declaration
16 yourself?

17 A. I did not write it completely myself.

18 Q. Who wrote the first draft?

19 A. I believe it was done in conjunction with
20 each other. I looked at the -- the terms that they
21 asked me to provide an opinion upon and, through an
22 interview process back and forth, we provided the

1 **information that it needed.**

2 Q. When did you begin the work leading to
3 your expert declaration?

4 A. **I don't recall the date that I was**
5 **retained. So received in March -- I believe it was**
6 **the end of 2019, some time in.**

7 Q. Approximately how many hours did you spend
8 doing the work that culminated in your expert
9 declaration?

10 A. **I don't recall right off. Maybe 30, 40**
11 **hours.**

12 Q. Okay.

13 A. **Somewhere around there.**

14 Q. In paragraph four of your declaration, you
15 state that the documents you reviewed and relied on
16 in reaching your opinions and conclusions in the
17 declaration are cited in the declaration. Do you see
18 that?

19 A. **Can you point me out where you're --**

20 Q. Paragraph four, under the heading
21 Materials Considered.

22 A. **Oh.**

1 Q. So it's on page three.

2 A. Oh. I went to page four, I'm sorry.

3 Yes.

4 Q. Is that a true statement?

5 A. Yes.

6 Q. And to the best of your knowledge, did you
7 cite in this declaration all of the documents that
8 you reviewed and relied on for reaching your
9 conclusions on claim construction in this litigation?

10 A. Yes.

11 Q. And in preparing for this deposition, did
12 you notice or realize that there's any -- there's
13 some documents or any particular document that you
14 relied on but neglected to cite in this declaration?

15 A. No, sir.

16 Q. As far as you know, what you cite in this
17 declaration is a complete universe of what you
18 considered and relied on to reach your conclusions on
19 claim construction in this case, correct?

20 A. Yes, sir.

21 Q. In paragraph 12, which is on page five --
22 do you see that?

1 **A. Yes.**

2 **Q.** You state that you understand that a
3 construction of a claim term that excludes an
4 embodiment described in the specification is rarely a
5 proper construction unless the embodiment was not
6 claimed. Do you see that?

7 **A. Yes.**

8 **Q.** To your knowledge, do any of RSB's
9 constructions that you considered exclude embodiments
10 disclosed in the specification of the '234 or '537
11 patents?

12 MR. PIETRANTONIO: Objection, outside the
13 scope.

14 THE WITNESS: Again, I was -- I was asked
15 to opine on just a few terms in the claim
16 construction and that's what I've provided in my
17 declaration.

18 BY MR. GRIFFITH:

19 **Q.** Do you know whether any of those
20 constructions exclude embodiments in -- that are
21 disclosed in the specification of either the '234 or
22 '537 patents?

1 **A. I do not.**

2 Q. What is your understanding as to when it
3 is appropriate to exclude embodiments that are
4 disclosed in the specification from the scope of the
5 claims?

6 **A. Can you repeat your question, please?**

7 Q. Yeah.

8 What is your understanding as to when it
9 is appropriate to exclude from the scope of the
10 claims embodiments that are disclosed in the
11 specification?

12 MR. PIETRANTONIO: I'm going to object to
13 the extent it calls for a legal conclusion.

14 THE WITNESS: Again, I didn't, I didn't
15 address the exclusion of embodiments in this
16 declaration, it was just the -- my opinions on the
17 claim terms that I was asked to opine upon.

18 BY MR. GRIFFITH:

19 Q. Did this statement that we're looking at
20 in paragraph 12, to your recollection, have any
21 relevance to your opinions and, if so, what is it?

22 **A. I don't believe they beared [sic] any**

1 **influence on my claim construction or my opinions.**

2 Q. Let me direct your attention to paragraph
3 19. Do you see that?

4 A. **Yes.**

5 Q. This is a paragraph under the heading
6 Technology Background, correct?

7 A. **Correct.**

8 Q. And there, you talk about plate systems
9 using a unicortical purchase of the bone, do you see
10 that?

11 A. **Yes.**

12 Q. And you state that, "This design resulted
13 in rigid fixation and stress shielding of the bone
14 graft material, which caused numerous patient
15 complications, including nonunion of the bony
16 fusion."

17 Do you see that?

18 A. **Yes.**

19 Q. What do you mean by "stress shielding"
20 there?

21 A. **Again, I think this was taken from the**
22 **patent as it was outlining shortcomings of current**

1 **technologies there. And that definition of stress**
2 **shielding was shielding the bone graft material from**
3 **stresses.**

4 Q. Is it true that in this context of plate
5 systems on -- on the spine, stress shielding can
6 limit the load transferred to bone graft?

7 A. **In this particular context, yes.**

8 Q. And that, that can cause nonunion of the
9 bony fusion, correct?

10 A. **Yes.**

11 Q. So is union of the bony fusion sometimes
12 called arthrodesis?

13 A. **I'm sorry, can you repeat that?**

14 Q. Yeah.

15 Is union of two vertebrae through bone
16 grafts sometimes called arthrodesis?

17 A. **I believe that's a term that can be used**
18 **for the application.**

19 Q. And you want, in doing, frequently doing
20 spine surgery using plate systems, for example, on
21 the anterior cervical spine, you want arthrodesis to
22 occur, correct?

1 **A. You want fusion.**

2 Q. Okay. That's fine. "Fusion" is fine with
3 me.

4 **A. All right.**

5 Q. And for these plate systems, it can
6 sometimes result in nonfusion. The thing limiting
7 the load transfer is the plate, coupled with the bone
8 screws, correct?

9 **A. Can you repeat that?**

10 Q. Yeah.

11 So stress shielding involves limiting the
12 load transferred to the bone graft, correct?

13 **A. Correct.**

14 Q. So the bone graft is placed in-between two
15 vertebrae, right?

16 **A. Uh-huh.**

17 Q. And then -- you're going to have to give
18 yes or no answers.

19 **A. Oh, sorry.**

20 Q. Oh, that's okay, I do it all the time
21 myself. So if I do the same thing, remind me.

22 So, again, in a spine surgery, a surgeon

1 will -- you have a degenerated disc, correct?

2 A. Yes.

3 Q. So the surgeon will clear out the -- the
4 bad part of the disc, remove that, correct?

5 A. Yes.

6 Q. And put in bone graft, right?

7 A. Yes, he can.

8 Q. So then, for example, they can put a plate
9 over it, if it's a single, a single-level surgery,
10 over two vertebrae, right?

11 A. Yes.

12 Q. And secure the plate to the vertebrae?

13 A. Yes.

14 Q. And -- and if that's a rigid fixation,
15 that plate can limit the transfer of load to the bone
16 graft that's been placed between the vertebrae,
17 right?

18 A. It could.

19 Q. And that's called stress shielding?

20 A. It -- yes, the plate could shield the
21 stresses.

22 Q. And in the -- in the, the two patents in

1 suit, the '234 patent and the '537 patent, the
2 inventor is trying to avoid having stress shielding
3 occur, correct?

4 **A. Yes.**

5 Q. That's one of the purposes of the
6 invention, correct?

7 **A. One of them, yes.**

8 Q. And so, again, going back to these plate
9 systems you're talking about in 19, the plate is
10 bearing weight and not enough weight is being
11 transferred to the bone graft in that situation,
12 right?

13 **A. In this particular concept -- context,**
14 **yes.**

15 MR. GRIFFITH: All right. And just to
16 kind of get a little visual aid here, I'm going to
17 mark as Exhibit 2 a picture of an Atlantis plate.

18 (Drewry deposition Exhibit Number 2 was
19 marked for identification and attached to the
20 transcript.)

21 BY MR. GRIFFITH:

22 Q. And I'm handing you Exhibit 2, which is

1 a picture of an Atlantis plate that I will represent
2 to you I downloaded from the internet.

3 So the Atlantis plate is a -- in an
4 anterior surface plate, isn't it?

5 **A. Yes.**

6 Q. It was something that Medtronic introduced
7 and sold while you were at Medtronic, right?

8 **A. Yes.**

9 Q. And was -- is it a plate system that you
10 were familiar with?

11 **A. I'm familiar with the Atlantis plate, yes.**

12 Q. Were you the designer of the Atlantis
13 plate?

14 **A. I was not.**

15 Q. Okay. But you understand how it was used
16 and how it operates, right?

17 **A. Yes, sir.**

18 Q. And is this the type of plate system, this
19 Atlantis plate system, that could result in stress
20 shielding?

21 **A. In -- yes.**

22 Q. Now, the Atlantis plate allowed for rigid

1 fixation, correct?

2 **A. I believe it provided for multiple types**
3 **of fixation. I think rigid was one, I think they may**
4 **have had some other degrees of fixation, as well.**

5 Q. And does it -- let me ask you if this
6 rings a bell, that you could, you could use screws
7 that were permitted to toggle some, and so that that
8 would be semi-constrained or a not-so-rigid fixation,
9 right?

10 **A. I'm not sure of all the configurations but**
11 **I knew there were that.**

12 Q. Okay. There was a rigid fixation,
13 correct?

14 **A. Yes.**

15 Q. And so screws would rigidly lock to the
16 plate in that circumstance, correct?

17 **A. Yes.**

18 Q. And when the -- in that circumstance when
19 the Atlantis plate was implanted on vertebrae, it was
20 load-bearing, right?

21 **A. Can you repeat that? I'm sorry.**

22 Q. In that circumstance where you rigidly fix

1 it, affix it, the Atlantis plate, to the vertebrae,
2 it's load-bearing?

3 **A. It beared [sic] load, yes.**

4 Q. It bore weight, correct?

5 **A. Yes.**

6 Q. And so in a bearing weight, it would bear
7 the weight of the vertebrae superior to the vertebrae
8 inferior, inferior to that one, correct?

9 **A. Just the weight of the vertebrae?**

10 Q. Yeah, or at least some of the weight.

11 **A. It -- it beared [sic] weight, so --**

12 Q. Okay. And when the Atlantis plate was
13 implanted on vertebrae, it held the vertebrae in
14 place, right?

15 **A. I'm sorry, repeat that.**

16 Q. When the Atlantis plate was implanted on
17 vertebrae, it held, it held the vertebrae in place?

18 **A. That was its intention.**

19 Q. That was the purpose, right?

20 **A. The purpose, yes.**

21 Q. And this type of plate, the Atlantis
22 plate, is sometimes used with cages, correct?

1 **A. Yes.**

2 Q. And in those circumstances, does the plate
3 still bear some weight?

4 **A. It could.**

5 Q. And then the cage would also bear weight,
6 right?

7 **A. It could.**

8 Q. And when the Atlantis plate is used, was
9 used with a cage, can you describe how that procedure
10 worked? How would the cage be used and what's a
11 sequence of steps? I'm not asking for, you know,
12 starting with Step A in the operating room, but just
13 at a general level, how would it be used by a surgeon
14 with a cage?

15 MR. PIETRANTONIO: Objection, outside the
16 scope.

17 THE WITNESS: Again, I guess in -- in that
18 procedure, the surgeon would identify the diseased
19 disc, he would remove the material, as you discussed.
20 He would put bone graft, a spacer, a cage or some
21 device that he was choosing to use to promote fusion
22 in the disc space. And in the case of an Atlantis

1 plate, he placed a plate on the spine.

2 BY MR. GRIFFITH:

3 Q. So he would put bone graft inside the
4 cage, correct?

5 A. That -- that's one op -- he could do that.
6 He could just put a bone graft spacer. So he could
7 use a cage, he could not use a cage, he could use
8 bone graft, he could not use bone graft. I mean,
9 there were multiple iterations.

10 Q. Understood.

11 So when -- when using a cage, he would put
12 bone graft into the cage, correct? That would be
13 outside the spine that he would do that?

14 MR. PIETRANTONIO: Objection, outside the
15 scope.

16 THE WITNESS: I mean, depending on the --
17 depending on the cage, he could load the graft
18 material prior to insertion of the cage and put it in
19 together or, if the cage provided it, he could inject
20 bone graft material or some other synthetic substance
21 into the cage after it was in place, as well.

22 BY MR. GRIFFITH:

1 Q. Okay. And then the plate would go on
2 after that?

3 A. Yes.

4 Q. All right.

5 All right. Let me direct your attention
6 to page seven, eight, nine and ten of your expert
7 declaration, that's Drewry Exhibit 1.

8 A. Okay.

9 Q. And in this section, you discuss the term
10 "base plate," correct?

11 A. Yes, sir.

12 Q. And in paragraph 30, you conclude that a
13 spacer is distinct from a base plate as claimed in
14 the '234 and '537 patents, correct?

15 A. I'm -- I'm sorry, what paragraph?

16 Q. Paragraph 30.

17 A. Okay.

18 Q. In paragraph 30, you conclude that a
19 spacer is distinct from a base plate, as claimed in
20 the '234 and '537 patents, correct?

21 A. Correct.

22 Q. Now, in paragraph 26, you define the term

1 "spacer," right?

2 **A. Yes, sir.**

3 Q. And you say "a 'spacer' refers to an
4 interbody device that forms a chamber, where the
5 chamber is packed with bone graft material prior to
6 insertion at the bone graft site."

7 You see that?

8 **A. Yes, sir.**

9 Q. Is it true that a characteristic of a
10 spacer is that it is packed with bone graft prior to
11 insertion of the spacer into the bone graft site?

12 **A. No. That was -- in reviewing my
13 declaration for this, in preparation for this, I
14 noticed that as I mentioned in the earlier example
15 with the Atlantis plate that while typically cages
16 are preloaded before insertion, there are
17 opportunities where cages could be inserted and then
18 post-packed with bone graft.**

19 Q. So your definition of a spacer here is
20 mistaken, is that your testimony?

21 MR. PIETRANTONIO: Mischaracterizes his
22 testimony.

1 THE WITNESS: I would, I would just like
2 to add the -- the modifier that it's "typically." I
3 mean, I thought about it some more with spacers and
4 some others that are available and that there is the
5 opportunity for these spacers to be loaded after
6 they're in place.

7 BY MR. GRIFFITH:

8 Q. Is it fair to say that the -- your
9 definition there is an overstatement?

10 MR. PIETRANTONIO: Again, mischaracterizes
11 his testimony.

12 THE WITNESS: I don't believe it's an
13 overstatement, no.

14 BY MR. GRIFFITH:

15 Q. Now, you mentioned in one of your answers,
16 I had asked about spacer and you answered using the
17 word "cage."

18 For our purposes in this case, are those
19 two words synonymous?

20 A. No.

21 Q. What's -- what's the difference between
22 the definition of a spacer and the definition of a

1 cage?

2 A. Again, I think for the definition of the
3 spacer that I gave, it forms a chamber where the
4 chamber is packed. Again, typically it could be done
5 before or after insertion into the bone graft site.
6 But, again, a spacer just -- doesn't necessarily need
7 to be a cage. I mean, there's examples where
8 allograft tissue can perform the function of a
9 spacer, but that would not be what I would typically
10 define as a cage.

11 Q. Besides allograft spacers, are there other
12 examples of things that are spacers but, in your
13 opinion, not cages?

14 A. Yes. We -- we made some synthetic bone
15 material spacers, so there's additional materials out
16 there that I would consider a spacer and not a cage.

17 Q. Okay. So it sounds to me like you
18 consider the term "spacer" to extend to allograft --
19 spacers made of allograft or synthetic materials that
20 are bone derived --

21 MR. PIETRANTONIO: Objection.

22 MR. GRIFFITH: -- but not so with cages.

1 Is that -- is that correct? And if you need me to
2 rephrase the question there --

3 THE WITNESS: Yeah, repeat that.

4 BY MR. GRIFFITH:

5 Q. So it sounds to me like you regard a cage
6 as something not made from allograft or bone
7 material, but, rather, from metal or plastic and
8 materials of that ilk. Is that correct?

9 MR. PIETRANTONIO: Objection,
10 mischaracterizes his testimony.

11 THE WITNESS: Again, I'm not sure that I
12 understand. Ask it one more time, I'm sorry.

13 MR. GRIFFITH: Can you read back?

14 (Thereupon, the Reporter read as follows:

15 Question: "So it sounds to me like
16 you regard a cage as something not made
17 from allograft or bone material, but,
18 rather, from metal or plastic and
19 materials of that ilk. Is that correct?")

20 MR. PIETRANTONIO: Same objection.

21 THE WITNESS: No, I don't, I don't think
22 it's material-based.

1 BY MR. GRIFFITH:

2 Q. What's the definition of a cage in the
3 context of spinal implants?

4 A. I -- I really didn't look at a definition
5 for a cage, I was focused on "spacer."

6 Q. So you don't know right now?

7 A. Not in the context that you're asking,
8 what definition I would give. I just really haven't
9 thought about it.

10 Q. Let me direct your attention to the page
11 seven of your declaration.

12 A. Okay.

13 Q. And do you see that in the Plaintiff's
14 definition, the word "spacer" is used?

15 A. Yes.

16 Q. And in the Defendant's position, the word
17 "cage" is used?

18 A. Yes.

19 Q. And then in paragraph 25, you say, you
20 identify three key respects in which the Plaintiff's
21 position differs from the Defendants' position. Do
22 you see that?

1 **A. Yes, sir.**

2 Q. You did not identify the difference
3 between "cage" and "spacer" as a -- as an issue, is
4 that right?

5 **A. Again, I was -- that was my understanding**
6 **of where the differences were, but I was just asked**
7 **to opine on whether the base plate was distinct from**
8 **the spacer. So those are the two -- the single area**
9 **that I focused my attention.**

10 Q. And you have not opined on anything about
11 a cage, is that right?

12 **A. That's correct.**

13 Q. Okay.

14 **A. I just looked at the definition of**
15 **"spacer."**

16 Q. And then in preparing for your deposition,
17 you noticed that in your definition of spacer, you
18 should have used the word "typically," do I have that
19 right?

20 **A. Yes, sir.**

21 Q. When did you notice that?

22 **A. I think it was yesterday, when I was**

1 **reading through it again, just in thinking in**
2 **generally about the process.**

3 Q. Okay. Can a spacer be comprised of
4 multiple pieces?

5 A. **Yes.**

6 Q. So you can have, for example, a two-piece
7 spacer, is that right?

8 A. **Yes, you could.**

9 Q. It doesn't -- a spacer does not have to be
10 a single unitary piece, is that fair?

11 A. **That's fair, yes.**

12 Q. To be a spacer, to constitute a spacer in
13 your definition, does the chamber have to be
14 completely surrounded?

15 A. **No, it doesn't.**

16 Q. Does a spacer have to be closed on the
17 posterior side?

18 A. **No.**

19 Q. And I -- I'm going to retroactively try to
20 bring some clarity to that question. I used the word
21 "posterior." So by that, I meant "posterior" in the
22 anatomical sense. Is that how you understood it?

1 **A. That's one way can you understand it.**

2 Q. Okay.

3 **A. I think it depends on the reference and**
4 **how you define posterior.**

5 Q. Yeah, okay. So let me try to, as I said,
6 burrow in there and make sure that it's clear.

7 So the front part of a person's body is
8 anatomically referred to as the anterior side, right?

9 **A. In -- in that context, yes.**

10 Q. And so that's -- I'm referring to it in
11 that way, okay?

12 **A. Yes.**

13 Q. And then the back is the posterior side,
14 in the way I'm referring to it.

15 **A. Yes.**

16 Q. And so when a spacer is used in an
17 anterior procedure, the surface that is facing
18 outward and that would be visible after the spacer is
19 put in I'm going to call the -- the anterior surface,
20 all right?

21 **A. Yes.**

22 Q. And the one that would be furthest

1 posterior -- I'm going to call it the posterior
2 surface.

3 **A. Yes.**

4 Q. All right. So in -- in that context with
5 those definitions, is it true that a spacer can be
6 opened or -- on the posterior side?

7 **A. Yes, there are spacers that are open**
8 **posterior.**

9 Q. Do spacers restrict shifting of the bone
10 graft?

11 **A. They can.**

12 Q. Is that one of their purposes?

13 **A. Can you repeat it? Is that --**

14 Q. Is -- sure.

15 Is one of the purposes of a spacer to
16 restrict shifting of the bone graft?

17 **A. Not always.**

18 Q. Okay. But sometimes it is, right?

19 **A. I mean, there -- there -- sometimes there,**
20 **there could be.**

21 Q. Is it unusual for the function of a spacer
22 to be restriction of the shifting of the bone graft?

1 **A. I mean, sometimes the spacer is the bone**
2 **graft.**

3 **Q. I gotcha. All right.**

4 So when the spacer isn't the bone graft --
5 so let me ask this in the context of a spacer made
6 out of PEEK, P-E-E-K, all caps.

7 You're familiar with those types of
8 spacers, right?

9 **A. Yes.**

10 **Q. Is the function of a PEEK spacer**
11 **frequently to restrict shifting of the bone graft?**

12 **A. Again, in -- in some applications, yes.**

13 **Q. Is the function of a PEEK spacer to retain**
14 **bone graft?**

15 **A. Again, in some context, yes.**

16 **Q. Is the function of a spacer to bear**
17 **weight?**

18 **A. Yes.**

19 **Q. Are there any other functions for PEEK**
20 **spacers that you're aware of?**

21 **A. I'm trying to think of what we have.**
22 **I think maybe also to maintain disc**

1 **height, to provide space. It's a spacer.**

2 MR. GRIFFITH: Okay. All right. Let me
3 go to the '527 [sic] patent. I apologize, '537.

4 (Drewry deposition Exhibit Number 3 was
5 marked for identification and attached to the
6 transcript.)

7 BY MR. GRIFFITH:

8 Q. Mr. Drewry, I'm handing you a copy of
9 what's been marked as Drewry Exhibit 3.

10 A. **Thank you.**

11 Q. And that's a copy of U.S. Patent Number
12 9,713,537, correct?

13 A. **Yes, sir.**

14 Q. And do you recognize that as the '537
15 patent that we've been referring to today?

16 A. **Yes, I do.**

17 Q. You've read this, right?

18 A. **Yes. Again, focusing on the -- on the**
19 **terms that I was asked to opine upon.**

20 Q. You believe you understand this patent, is
21 that right?

22 A. **Yes.**

1 Q. Let's go to Figure 32.

2 Do you have that?

3 A. Yes, sir.

4 Q. Does Figure 30 -- 32 have -- let me
5 rephrase that.

6 Does the design shown in Figure 32 have a
7 base plate?

8 A. No, sir.

9 Q. Is it a base plate?

10 A. No, sir.

11 Q. Why not?

12 A. Because it's not distinct from the spacer.

13 Q. So for claims in the '234 and '537 patents
14 that require a base plate, you would say that the
15 design shown in Figure 32 is not covered by those
16 claims, correct?

17 A. No, I didn't say they weren't covered, I
18 just said it -- it's not distinct from a spacer, so
19 it's not a base plate, by my definition.

20 Q. If someone, to your understanding, used
21 this design, didn't use anything else with it, the
22 design shown in Figure 32, for the claims requiring a

1 base plate, you would say that design is not within
2 the scope of the claims because it's not a base
3 plate, is that right?

4 MR. PIETRANTONIO: Objection, calls for a
5 legal conclusion.

6 THE WITNESS: Again, based on my
7 definition, in my opinion, this is a spacer because
8 it doesn't have a distinct base plate.

9 BY MR. GRIFFITH:

10 Q. Does RSB's definition of base plate
11 exclude this embodiment from the term "base plate"?

12 A. Again, I don't think it's -- it's distinct
13 from the spacer, so it doesn't match my definition in
14 my disclosure.

15 Q. So thank you. My question was a little
16 bit different.

17 The question is does RSB's construction of
18 "base plate," which you agree with, does that
19 definition exclude this embodiment?

20 A. Again, I didn't, I didn't look at that
21 embodiment, I just looked at the terms and opined on
22 their definitions.

1 Q. And you didn't consider this embodiment in
2 doing that?

3 A. **Not in the definition of my terms.**

4 Q. Did you consider in your definition of the
5 terms any of the embodiments shown in the '537
6 patent?

7 A. **As -- again, as the -- as the terms were**
8 **used, that's where I got my definitions for the --**
9 **the claims.**

10 Q. And you don't --

11 A. **I mean for the, for the terms.**

12 Q. You don't cite to any particular
13 embodiments in the section on base plate, do you,
14 correct? Paragraphs 22 to 30.

15 A. **Not specifically, no. Just in the general**
16 **context of the '234 and the '537 patents.**

17 Q. And there were no particular embodiments
18 that were important to your construction of "base
19 plate," is that correct?

20 A. **Again, I just, I focused on the terms**
21 **"bone plate" and used the context within the, within**
22 **the patents for the definition.**

1 Q. So there were no particular embodiments
2 that were important to your construction of "base
3 plate," is that correct?

4 MR. PIETRANTONIO: Objection,
5 mischaracterizes his testimony.

6 THE WITNESS: Again, I don't know that I
7 focused necessarily on individual embodiments.

8 BY MR. GRIFFITH:

9 Q. So is my statement correct that no
10 particular embodiments were important to your
11 construction of "base plate"?

12 MR. PIETRANTONIO: Objection,
13 mischaracterizes his testimony.

14 MR. GRIFFITH: That's coaching. You can
15 object to form.

16 THE WITNESS: Again, I don't know that
17 there was an individual embodiment. I think I looked
18 at them, at the patents, as a whole and looked at
19 bone plate in the context of the patents and that's
20 where I came up with my definitions.

21 BY MR. GRIFFITH:

22 Q. Does the -- let's go back to Figure 32.

1 Does that embodiment have a plate portion?

2 **A. No. Based -- again, based on my**
3 **definition, I think in order to have a plate, you**
4 **have to be distinct from a spacer, and I don't think**
5 **that image is distinct.**

6 Q. Let me follow up on this. So let's assume
7 that this spacer is used in an -- in an anterior
8 procedure. Let me rephrase that.

9 Do you understand that this device that's
10 shown in Figure 32 is called a base member in the
11 patent?

12 **A. I'm not sure that I knew what that -- that**
13 **particular part was referenced as.**

14 Q. Okay. Assume that this device that's
15 shown in Figure 32 is used in an anterior procedure,
16 okay?

17 **A. Okay.**

18 Q. And so do you see where the number 692 is?
19 Not what it's pointing to but where, where it is in
20 the drawing?

21 **A. Okay.**

22 Q. So I'm going to refer to that area as the

1 posterior wall. Okay?

2 **A. It looks like it's pointing into space.**

3 Q. I real -- I'm not referring to what it's
4 pointing to. Let me, let me back up and start over
5 again.

6 So for this device, do you see there's a
7 wall that has holes in it for insertion of bone
8 screws?

9 **A. Again, repeat the question.**

10 Q. In this device shown in Figure 32, do you
11 see that there's a wall that has holes in it for
12 insertion of bone screws?

13 **A. There's a side of the spacer that has**
14 **holds -- has holes in it, yes.**

15 Q. Okay. So and that, and then there's --
16 I'm going to call that the anterior wall, okay?

17 **A. Yes.**

18 Q. And then there's two lateral walls that
19 extend posteriorly from that, is that correct?

20 **A. Yes.**

21 Q. And then there's a posterior wall that is
22 opposite the anterior wall, correct?

1 **A. Yes.**

2 Q. Now, what I'm calling the anterior wall
3 has holes for the insertion of bone screws, is that
4 right?

5 **A. Yes.**

6 Q. And it has a slot in it, as well. Do you
7 see where 680 is pointing?

8 **A. Yes.**

9 Q. And -- and this wall would be anterior,
10 correct?

11 **A. Yes.**

12 Q. So it is different than the side walls,
13 correct?

14 **A. Yes.**

15 Q. And it is different from the posterior
16 wall, is that correct?

17 **A. Different in what way? How --**

18 Q. Well, for example, it has screw holes that
19 go through it, right?

20 **A. Yes.**

21 Q. And it's also positioned anteriorly,
22 rather than posteriorly, correct?

1 **A. Yes.**

2 Q. And you, as a person of ordinary skill in
3 the art, are able to notice those differences,
4 correct?

5 **A. Yes.**

6 Q. So the anterior wall is distinct from the
7 posterior wall, correct?

8 **A. I don't think they're distinct, I think**
9 **they're different.**

10 Q. What do you think the definition of
11 "distinct" is, sir?

12 **A. I think "distinct" is, again, as I refer**
13 **to as part of my definition for spacer, I think it's**
14 **separate from and distinct, not a part of.**

15 Q. So your definition of -- which one of
16 those is -- is most correct for you for the meaning
17 of "distinct"?

18 **A. I think they're both synonymous.**

19 Q. Okay. So "distinct" means not part of, is
20 that fair?

21 Is it -- let me just strike that.

22 Is it your testimony that "distinct" means

1 not part of?

2 **A. Again, I think that's a definition of**
3 **"distinct."**

4 Q. Is -- is that synonymous to you for
5 "distinct" in the definition that you agree with?

6 **A. Yes.**

7 Q. And "distinct," to you, you would not
8 define as different from, do I have that right?

9 **A. Sorry, repeat that again.**

10 Q. Are you telling me that "distinct" does
11 not mean different from?

12 **A. Again, I think it could.**

13 Q. And you agree that the anterior wall is
14 different from the side walls and the posterior wall,
15 correct?

16 **A. I think one -- one has screw holes and one**
17 **doesn't.**

18 Q. And so if "distinct" could mean different
19 from, then the anterior wall is distinct from the
20 side walls and the posterior wall, correct?

21 **A. No, I -- again, I -- they're still part of**
22 **it, they're not separated, so --**

1 Q. Are you telling me now that "distinct"
2 cannot mean different from?

3 A. **No. I think they can be different and**
4 **separate.**

5 Q. So if "distinct" means different from,
6 which you said it could mean, then the anterior wall
7 could be deemed distinct from the side walls and the
8 posterior wall, correct?

9 A. **No. Again, I think because they're all**
10 **connected in this thing that they're not distinct.**
11 **They're one -- part of one complete body or spacer.**

12 Q. So "distinct" means connected? I'm sorry.
13 "Distinct" means not connected, is that
14 correct?

15 A. **No, I -- again, for my definition of**
16 **"spacer" with relation to a plate is that they're**
17 **different from each other and they're distinct. In**
18 **this scenario, I think it's a single component and**
19 **they're not distinct from each other.**

20 Q. You've told me that a cage can have
21 multiple -- strike that.

22 You've told me that a spacer can have

1 multiple components, correct? It can be multiple
2 pieces?

3 A. Yes.

4 Q. And it's still a spacer, even though it's
5 made of multiple pieces, right?

6 A. Yes.

7 Q. Okay. And you've testified that the
8 anterior wall is different from the side walls and
9 the posterior wall, correct? And I'm talking about
10 Figure 32.

11 A. Yeah. As it relates to having screw holes
12 and not having screw holes, yes, they're different.

13 Q. There's differences between the anterior
14 wall and the other walls, correct?

15 A. Yes.

16 Q. But you're saying because the anterior
17 wall is connected to the other walls, it's not
18 distinct. Do I have that right?

19 A. Again, I think it's a monolithic piece, so
20 I think they're -- it's not distinct. There's
21 differences, but they're not distinct.

22 Q. Okay. Is the wall that is behind me

1 distinct from the wall that is behind your counsel,
2 in this room?

3 **A. I think it depends on the context.**

4 Q. They're connected, right? Ultimately it's
5 all connected?

6 **A. I mean, if it's a room.**

7 Q. One wall is distinct from another, right?

8 **A. I think there's differences. I mean,**
9 **one's this wall, one's that wall.**

10 Q. Let me go -- oh, strike that.

11 A couple more things on Figure 32. Do you
12 see the number 520?

13 **A. Yes, I do.**

14 Q. And that's pointing to the structure that
15 you were saying, I believe, is a spacer, right?

16 **A. Yes, sir.**

17 Q. And let me direct your attention to column
18 28 and particularly to line 23. Are you there?

19 **A. Yes.**

20 Q. It says, "As shown in Figure 32, the
21 configuration of the implant device 510 includes a
22 base member 520 having a plurality of protrusions or

1 interface members 530 extending from a surface of the
2 base member 520."

3 Okay. Do you see that?

4 **A. Yes, sir.**

5 Q. So do you understand, then, that the part
6 in Figure 32 that you've said is a spacer is called a
7 base member in the specification?

8 **A. Based on the line that you read, yes.**

9 Q. So do you agree that "base member" and
10 "base plate" do not have the same meaning?

11 **A. Yes.**

12 Q. Now, let me direct your attention to
13 column 29 and lines 8 to 13. It says, "The base
14 member 520 of the implant device 510 includes a
15 primary member 600 and a secondary member 610, which
16 extends from and is angled relative to the primary
17 member 600."

18 Do you see that?

19 **A. Yes.**

20 Q. So the secondary member 610 is the thing
21 depending downward that has the slot in it, correct?

22 **A. Correct.**

1 Q. And the primary member is the portion of
2 the base member above that, correct?

3 A. **I'm sorry, repeat that, that --**

4 Q. The primary member 600 is the portion of
5 the base member above that secondary member, correct?

6 A. **Yes.**

7 Q. So is primary member 600 a base plate?

8 A. **No.**

9 Q. So "primary member" and "base plate" do
10 not have the same meaning, correct?

11 A. **No.**

12 MR. GRIFFITH: Frank, we've been going for
13 an hour, do you want to take a break?

14 MR. PIETRANTONIO: Sure.

15 MR. GRIFFITH: I'm happy to keep going
16 but --

17 MR. PIETRANTONIO: That's fine.

18 THE VIDEOGRAPHER: The time is now 10:06,
19 going off the record.

20 (A break was taken.)

21 THE VIDEOGRAPHER: We're back on the
22 record, the time is 10:19.

1 BY MR. GRIFFITH:

2 Q. Mr. Drewry, do cages cause stress
3 shielding?

4 A. They can.

5 Q. All right. Let's go to Figure 35 of the
6 '537 patent, which is Exhibit 3, Drewry Exhibit 3.

7 Do you have that?

8 A. Yes, sir.

9 Q. Is it correct that the chamber member,
10 which is numeral 696, chamber member 696 does not, by
11 itself, form a peripherally enclosed space?

12 A. Let's see. 696 pointing, you said just
13 this member?

14 Q. Yes.

15 A. And your question?

16 Q. So it's the one that on the page is to the
17 right and above, okay. I'll represent to you that
18 the specification refers to that as chamber member
19 696.

20 A. Okay.

21 Q. Do you agree that that is -- does not form
22 a -- by itself, a peripherally enclosed space?

1 **A. Not by itself, no.**

2 Q. Is chamber member 696 a plate?

3 **A. No --**

4 Q. Did you say "no"?

5 **A. I'm just thinking.**

6 **I think in this figure, no.**

7 Q. Does it have a plate structure?

8 **A. No.**

9 Q. Is it a base plate?

10 **A. No.**

11 Q. All right. Let me direct your attention
12 to column 34.

13 **A. Okay.**

14 Q. Well, let's see.

15 All right. In column 34 at line 56, it
16 refers to the first and second legs 620, 630 of the
17 primary member 600 being able to form generally a
18 U-shape. Do you see that?

19 **A. Yes, sir.**

20 Q. Do you understand that "primary member
21 600" refers to the part on the left and lower down in
22 this drawing --

1 **A. Yes, sir.**

2 **Q. -- in Figure 35?**

3 And you understand that primary member 600
4 can be assembled with chamber member 696?

5 **A. Yes.**

6 **Q. And when that happens, primary -- when**
7 **that happens, is it your view that the assembled part**
8 **is a two-piece spacer?**

9 **A. I don't think it's a two-piece spacer, I**
10 **think it's a base plate attached to a spacer.**

11 **Q. That's not the way the specification**
12 **described it, correct?**

13 **A. Well, again, when it's, when it's**
14 **separate, I think it's -- it's distinct, and this**
15 **would be the, again, base plate member and this would**
16 **be a U-shaped -- I forgot, which is a nonperipherally**
17 **surrounded part of a spacer.**

18 **Q. When it's assembled, structurally it's the**
19 **same as the design shown in Figure 32, correct, after**
20 **assembly?**

21 MR. PIETRANTONIO: Objection, vague.

22 THE WITNESS: I think they're still two

1 distinct parts but they're assembled together.

2 BY MR. GRIFFITH:

3 Q. And the assembled thing is a spacer,
4 correct?

5 A. I think it has a spacer component. I
6 think it has a base plate component.

7 Q. If somebody's, after assembly, referred to
8 the entire assembled device as a spacer, would you
9 say that person is incorrect in usage of the word
10 "spacer"?

11 A. Again, I think there's a spacer component
12 and a base-plate component.

13 Q. If somebody assembled this device together
14 as it's supposed to be assembled and referred to the
15 assembled device as a spacer, would you say that
16 person is using incorrect usage of the word "spacer"?

17 A. Yes, because I -- it's not distinct from
18 the base plate.

19 Q. So when assembled, it would be incorrect
20 to call that a two-piece spacer, is that your
21 testimony?

22 A. I don't know that I'd call that a

1 **two-piece spacer.**

2 Q. I understand it's your testimony that you
3 wouldn't. I'm asking you whether if somebody else
4 did, would that be incorrect usage of the word
5 "spacer," to call that a two-piece spacer?

6 A. **I'd say yes because it's not -- it's not**
7 **distinct from the base plate.**

8 Q. What's not distinct from the base plate?

9 A. **The 696 portion.**

10 Q. When assembled, 696 is not distinct from
11 the base plate, correct?

12 A. **Again, one piece is the spacer component**
13 **and the other piece is the base plate component.**

14 Q. But that's not the language that's used in
15 the specification, that's terminology that you've
16 elected to use for purposes of this case, correct?

17 A. **I mean, that's how I defined it in my**
18 **declaration and that's how I referred to it as.**

19 Q. You didn't talk about Figure 35 in your
20 declaration, did you?

21 A. **Not specifically, no.**

22 Q. And in fact, in your declaration, you said

1 "a 'spacer' refers to an interbody device that forms
2 a chamber, where the chamber is packed with bone
3 graft material prior to insertion at the bone graft
4 site," right?

5 **A. Typically.**

6 Q. "Typically" is what you've added to
7 that --

8 **A. Yeah, yeah.**

9 Q. -- definition today?

10 **A. Correct. yes.**

11 Q. And did you do that because of Figure 35?

12 **A. No.**

13 Q. Is that because you needed to make your
14 testimony consistent with 35, sir?

15 **A. No, sir.**

16 Q. Do you understand that the purpose of this
17 design is to enable packing of bone graft into the
18 intervertebral space before putting the primary
19 member on?

20 **A. Can you repeat that? I'm sorry.**

21 Q. What do you understand the purpose of this
22 two-piece design to be?

1 **A. I mean, there could be multiple purposes.**

2 Q. The specification describes it, though,
3 doesn't it?

4 **A. Again, I -- I was focused -- when I --**
5 **when I prepared my declaration, I was focused on the**
6 **terms that I was asked to opine on. I didn't focus**
7 **in this area.**

8 Q. The specification describes that the
9 surgeon, using this design, can put the chamber
10 member in and then put bone graft into the
11 intervertebral space and then, in a separate step,
12 put the primary member on, correct?

13 **A. Again, I didn't focus on that, but that**
14 **could be but it's not required.**

15 Q. So you don't know what the purpose of this
16 design is according to the specification?

17 **A. Again, I didn't focus in that area.**

18 Q. Do you know what the purpose of this
19 design is according to the specification?

20 **A. No.**

21 **(Drewry deposition Exhibit Number 4 was**
22 **marked for identification and attached to the**

1 transcript.)

2 BY MR. GRIFFITH:

3 Q. Mr. Drewry, let me hand you a copy of what
4 has been marked as Drewry Exhibit 4. And Exhibit 4
5 is a copy of U.S. Patent Number 6,984,234, do you see
6 that?

7 A. Yes, sir.

8 Q. And we've been referring to this as the
9 '234 patent today, correct?

10 A. Yes.

11 Q. You've read this patent?

12 A. I have.

13 Q. You believe you understand it, right?

14 A. To some degree, yes.

15 Q. I've been asking you questions about
16 Figures 32 and 35 in the '537 patent, right?

17 A. Yes, sir.

18 Q. And I'd asked you to confirm for me that
19 Figures 32 through 38 are not disclosed or described
20 in the '234 patent.

21 A. Again, I'm not sure if they're disclosed
22 or not. I -- I was really focused on the claim terms

1 **in my review of both of these initial patents.**

2 Q. The design shown in Figures 32 to 38 of
3 the '537 patent are not described in the '234
4 specification, to your knowledge, is that correct?

5 A. **To my knowledge, yes.**

6 Q. In the '234 patent, no spacers are
7 described as being part of the invention, correct?

8 A. **Could you repeat that, please.**

9 Q. In the '234 patent, spacers are not
10 described as being part of the invention, correct?

11 A. **Again, I don't think "spacer" was worded**
12 **in the '234 patent, but I think through some of the**
13 **figures, one could appreciate that they could be used**
14 **with a spacer.**

15 Q. But that's not described in the patent,
16 correct?

17 A. **Again, I think the goal of the bone plate**
18 **stabilization system was to get the spine to fuse,**
19 **and I think what was used with the bone plate system**
20 **customarily by surgeons in their procedure for fusion**
21 **could be used.**

22 Q. I'm asking about the designs of Figures 32

1 to 38. Those designs are not described in the '234
2 patent, correct?

3 **A. Correct.**

4 Q. You understand that Figures 32 to 38 in
5 the '537 are a new matter?

6 MR. PIETRANTONIO: Objection, calls for a
7 legal conclusion.

8 THE WITNESS: Yes, I didn't -- I didn't
9 consider that in --

10 BY MR. GRIFFITH:

11 Q. All right. Let me direct your attention
12 to Figures 1 to 7 --

13 **A. Okay.**

14 Q. -- of the '234 patent that's Exhibit 4.

15 **A. One through -- I'm sorry?**

16 Q. Seven.

17 **A. Okay.**

18 Q. And in those figures, there's a -- there's
19 bone graft that is placed between the vertebrae,
20 correct?

21 **A. There could be.**

22 Q. And it's shown, for example, in Figure 1,

1 right, in dotted line?

2 **A. It could be bone graft.**

3 Q. It's called bone graft, right? I can find
4 the cite for you, if you want.

5 **A. I don't think it's limited to bone graft**
6 **but I think --**

7 Q. I'm just asking about the figure, okay?

8 **A. Okay.**

9 Q. So the figure, item 12, I believe, is bone
10 graft. Let me -- let me take a moment.

11 Okay. So let me direct your attention to
12 column four.

13 **A. Okay.**

14 Q. Lines 16 through 19. So that's discussing
15 Figures 1 and 3, correct?

16 **A. Okay. Yes, sir.**

17 Q. And it says, "The base plate 20 has a
18 bottom surface that contacts the bone graft 12,"
19 right?

20 **A. Yes, sir.**

21 Q. So item 12 in Figure 3 is bone graft. Is
22 there any doubt about that to you?

1 **A. No, sir.**

2 Q. Okay. So in these figures, bone graft, in
3 the figures, is inserted between the vertebrae,
4 right?

5 **A. Yes, sir.**

6 Q. And no spacer or cage is shielding that
7 bone graft from stresses, correct?

8 **A. Again, could you repeat that, please.**

9 Q. In those figures, Figures 1 and 3 --

10 **A. Uh-huh.**

11 Q. -- no spacer or cage is shielding that
12 bone graft from stresses, correct?

13 **A. Again, that bone graft could be a spacer.**

14 Q. No metal or -- it is not described as
15 being a spacer, correct, it's called bone graft 12?

16 **A. Correct. But in my definition of**
17 **"spacer," we show, I showed instances where, like the**
18 **femoral spacer, the cortical ring or allograft**
19 **tissue, where the bone graft material is also a**
20 **spacer.**

21 Q. No cage is shielding that bone graft from
22 stresses in Figures 1 and 3, correct?

1 **A. Again, I didn't -- I didn't focus on the**
2 **area. I'm not --**

3 Q. As you look at those figures, you don't
4 see a cage shielding the bone graft from stresses, am
5 I correct?

6 **A. I mean, again, it could -- it's a dashed**
7 **line, kind of black boxed. It could be, I'm just --**

8 Q. It's called bone graft 12, right?

9 **A. Yeah.**

10 Q. It's not called a cage, right?

11 **A. That's what it's called in the**
12 **description.**

13 Q. And do you have any reason to believe that
14 in those figures a cage is shielding that bone graft
15 from stresses?

16 **A. Not based on the figure, no.**

17 **(Drewry deposition Exhibit Number 5 was**
18 **marked for identification and attached to the**
19 **transcript.)**

20 BY MR. GRIFFITH:

21 Q. Mr. Drewry, I'm going to hand you a copy
22 of what's been marked as Drewry Exhibit 5. And I

1 will represent to you that this is a photograph of
2 something that has been called the Hartshill
3 horseshoe. Is that a -- is the Hartshill horseshoe a
4 device that you're familiar with?

5 **A. I think I've come across it in the past, a**
6 **long time ago.**

7 **Q.** Do you believe this device to be a base
8 plate in accordance with the RSB's claim
9 construction?

10 **MR. PIETRANTONIO:** Objection, outside the
11 scope.

12 **THE WITNESS:** Yeah, I -- I -- I didn't
13 review this, I didn't look at it, I didn't prepare
14 for it during my claim construction, so I really
15 didn't consider it in light of the base plate
16 definition.

17 **BY MR. GRIFFITH:**

18 **Q.** What would you need to know to know
19 whether that's a base plate?

20 **A. I -- I don't know. I'd need some time to**
21 **think about it and look at the context and how it was**
22 **used and --**

1 Q. Assume it's put in-between two vertebrae
2 in the anterior side and the screws are put in
3 through the holes that you see there.

4 A. **Again, I don't -- I don't know that that's**
5 **enough information for me to opine one way or the**
6 **other.**

7 Q. What additional information would you
8 need?

9 A. **I mean, similar to my review today for**
10 **this claim construction, I'd like to see the patents**
11 **or related information.**

12 Q. Well, you've read the patents, right?

13 A. **Not for this.**

14 Q. But you've read the '234 and '537 patents.

15 A. **I have.**

16 Q. And you've construed "base plate," you
17 know what that means, right?

18 A. **In this particular context and for this**
19 **particular patent, yes.**

20 Q. And looking at this right now, you
21 can't -- and assuming that this is used putting it
22 anteriorly between two vertebrae, putting bone screws

1 into the vertebrae, you can't say one way or the
2 other whether it's a base plate under RSB's proposed
3 construction right now, is that correct?

4 **A. That's correct. I mean, I don't know ==**
5 **there's just too many unknowns for me to be able to**
6 **make that right now.**

7 Q. The unknowns being what exactly?

8 **A. I don't know what the surgical technique,**
9 **I don't know where it's placed.**

10 Q. How does that impact whether it's a base
11 plate or not, if it's placed in the anterior part of
12 the spine between two vertebrae?

13 **A. There's just a lot of unknowns on how this**
14 **is used and described that I'm not comfortable making**
15 **that comparison to the definition that I have in my**
16 **declaration.**

17 Q. Is it a plate structure?

18 **A. Again, I don't know. I don't have enough**
19 **information to determine.**

20 Q. Well, just to know whether it's a plate
21 structure, all you need to be able to do is look at
22 it, right?

1 **A. No. I mean, I'd like some more specifics**
2 **and specifications and how they describe their device**
3 **before I'd make that determination.**

4 Q. Let me switch topics a bit and go to --
5 direct your attention to paragraph 44 of your
6 declaration, which is Exhibit 1. And in that
7 paragraph, you talk about the term "bottom surface,"
8 which is used in some claims of the '234 and '537
9 patents, correct?

10 **A. Yes, sir.**

11 Q. And it's your opinion that "bottom
12 surface" refers to the geometry of the plate from the
13 surgeon's perspective, right?

14 **A. Yes, sir.**

15 Q. And you say that it's opposite the top
16 surface, right?

17 **A. Yes, sir.**

18 Q. Is it true that the bottom surface of the
19 base plate in the '234 patent can have any design
20 that permits it to sit against the bone graft?

21 So you're reading paragraph 44?

22 **A. Uh-huh.**

1 Q. Do you see that in that paragraph, you
2 cite to the '234 patent at column four, lines 16 to
3 28?

4 A. Yes.

5 Q. Let's go to column four, line 16 to 28.
6 So it's that paragraph that begins "Figs 1 and 3" --

7 A. Uh-huh.

8 Q. You see that?
9 This is what you cited, right?

10 A. Yes.

11 Q. And there, Dr. Bray stated that "the base
12 plate 20 has a bottom surface 26 that contacts the
13 bone graft," correct?

14 A. Yes.

15 Q. He goes on to say that "the -- the bottom
16 surface is therefore preferably generally flat, but
17 can have any other design that permits it to sit
18 against the bone graft is suitable for use in the
19 invention," right?

20 A. Yes.

21 Q. Do you have any reason to doubt the truth
22 of that statement?

1 **A. No, sir.**

2 Q. So the bottom surface of the base plate
3 can have any design that permits it to sit against
4 the bone graft, correct?

5 **A. I guess what I'm struggling with, it can**
6 **be used with or without bone graft and it doesn't**
7 **necessarily need to contact the bone graft, so I**
8 **don't know how the design --**

9 Q. If used with bone graft, it can have any
10 design that permits it -- the bottom surface can have
11 any design that permits it to sit against the bone
12 graft, correct?

13 **A. Based on that sentence and in that**
14 **context.**

15 Q. And that's --

16 **A. But I don't know that it's limited to**
17 **that.**

18 Q. That's the only portion from the '234
19 patent that you cited with respect to "bottom
20 surface," right?

21 **A. Yes, in the '234.**

22 Q. And you cited that portion for the

1 proposition that a person of skill in the art
2 certainly would not have defined "bottom surface" by
3 adjacency of bone graft material, right?

4 That was the proposition that you cited
5 that portion of the spec for. Do I have that right?

6 **A. I'm sorry, repeat that.**

7 Q. You cited that portion of the
8 specification, where it says that the bottom surface
9 can have any design that permits it to sit against
10 the bone graft, you cited that portion of the spec
11 for the proposition that the person of skill in the
12 art certainly would not have defined "bottom surface"
13 by "adjacency to bone graft material."

14 Is that correct?

15 **A. I'm still not quite understanding you.**

16 Q. Does this portion of the spec that you
17 cited talk about using the base plate without bone
18 graft?

19 **A. It has "bone graft" in that sentence.**

20 Q. Does it talk about using the base plate
21 without bone graft? Please answer the question.

22 **A. Not there.**

1 Q. And that's the only portion of the spec
2 you cited for the proposition in your paragraph 44 of
3 your declaration, correct?

4 A. Yes.

5 Q. Let's go to the '537 patent, just to round
6 this out, because you cite the '537 patent, as well,
7 so that's Exhibit 3.

8 A. Okay.

9 Q. So let's go to column eight. And you
10 cited lines 46 to 58. Do you see that?

11 A. Yes.

12 Q. And that's, again, a paragraph that begins
13 "Figs. 1 and 3"? Correct?

14 A. Correct.

15 Q. So that's the same text, verbatim, I
16 believe, that we were just looking at in the '234
17 patent, right?

18 A. I don't know if it's verbatim, but --

19 Q. Its meaning is exactly the same, correct?

20 A. Yes.

21 Q. Is it true that the bottom surface 26 --
22 strike that.

1 Is it true -- let me, let me back up and
2 I'll first start by directing your attention to
3 column four, lines 22 to 24.

4 **A. Of?**

5 Q. I'm sorry, the '234 patent --

6 **A. Okay.**

7 Q. -- which is Exhibit 4.

8 **A. I'm sorry, line numbers again?**

9 Q. 22 to 24.

10 **A. Okay.**

11 Q. It says there that, "In the depicted
12 embodiment, the bottom surface 26 of the base plate
13 20 is the bottom surface of the primary member 21."
14 Do you see that?

15 **A. Yes, sir.**

16 Q. So the bottom surface is not on the
17 secondary member, correct, it's on the primary
18 member?

19 **A. Yes.**

20 Q. And let's go back to Figure 3. The
21 secondary member in Figure 3 is not shown sitting
22 against the bone graft, correct?

1 **A. I'm sorry, repeat that.**

2 Q. The secondary member is not shown sitting
3 against the bone graft, correct?

4 **A. And what is the secondary member?**

5 Q. Just a second. I was afraid you were
6 going to ask me that.

7 22. So if you go to Figure 1, do you see
8 22?

9 **A. I do.**

10 Q. So it's that thing with the slot that
11 angles away, it angles anteriorly, correct?

12 **A. Yes. And that -- in your frame of**
13 **reference, yes.**

14 Q. It's angled relative to the primary
15 member, right?

16 **A. Yes.**

17 Q. And specifically it's angled away from it,
18 right?

19 **A. Yeah -- I mean, it's angled.**

20 Q. It's angled anteriorly or outwardly,
21 correct?

22 **A. Yes.**

1 Q. It is not -- so the bottom surface of the
2 base plate -- I'm sorry.

3 The bottom surface 20 of the base plate is
4 described as sitting against the bone graft, right?

5 A. **It could be sitting against the bone**
6 **graft.**

7 Q. Well, it's --

8 A. **I don't think it's required to be sitting**
9 **against the bone graft.**

10 Q. Well, you're getting into a level of
11 complexity that I'm not at right now.

12 It's described as sitting against the bone
13 graft, correct?

14 A. **In this sentence, yes.**

15 Q. Yeah. And that's the sentence that you
16 cited for your construction of "bottom surface,"
17 correct?

18 A. **Yes.**

19 Q. And for the -- for the secondary member,
20 does the secondary member have a surface that is
21 opposite the top surface of the base plate?

22 A. **Again, I think the secondary member has a**

1 front surface that is generally continuous with the
2 top surface and -- of the primary member and a back
3 surface that is generally continuous with the bottom
4 surface of the primary member.

5 Q. And is that back surface of the secondary
6 member opposite the top surface of the base plate?

7 A. In that continuation of the top surface,
8 it's opposite of the continuation, yes, I think it's
9 continuous of the top surface.

10 Q. Okay. Let me switch topics. I'm going to
11 ask you some questions about "first end" and "second
12 end." So that is on page 14 and going on to 15 of
13 your declaration.

14 A. Okay.

15 Q. You see that?

16 A. Yes, sir.

17 Q. You state that "first end" has an
18 ordinarily understood meaning in the art, correct?

19 A. Yes, sir.

20 Q. What is that meaning?

21 A. I think just from -- from geometry,
22 it's -- it's one end. In this, in this particular

1 **application, it's one end of the base plate.**

2 Q. In the art, does "first end" mean the end
3 of the structure nearer the first bone?

4 A. I think that's how it was described, yes,
5 "first end nearer the first bone and a second end
6 nearer the second bone."

7 Q. And that's consistent with the ordinary
8 meaning in the art, correct?

9 A. Again, as I -- as I reviewed the patent
10 and in light of the -- how it was described in the
11 patent.

12 Q. The answer is yes?

13 A. Yes.

14 Q. Do you understand that a term used in one
15 claim in a patent, when it appears in another claim,
16 is ordinarily construed consistently to mean the same
17 thing?

18 A. Again, I think -- I think I was -- I
19 reference that as a legal, in my legal section.

20 Q. Right, it's called in paragraph 13?

21 A. It's normally used consistently throughout
22 the patent.

1 Q. And is the meaning of "first end" -- so
2 "first end" is used in claim one of the '234 patent,
3 right?

4 A. I'm sorry, which, '234?

5 Q. Yeah. So that's Exhibit 5.

6 A. Okay. Claim one?

7 Q. I believe that is in the -- the inserting
8 step, do you see that?

9 A. Uh-huh.

10 Q. Column ten, lines 40 to 42?

11 A. Yes.

12 Q. Okay. So then it's also used, "first end"
13 is also used in claim 22. So that would be in the
14 second and third lines of claim 22. Do you see that?

15 A. The second and third? I think it's
16 further. The end of the 22, right?

17 Q. Well, in claim 22. So at column 10, line
18 40.

19 A. Okay.

20 Q. I'm sorry, at line 39, "a base plate
21 having bottom surface and first and second
22 ends"[...].

1 **A. Yes.**

2 **Q. Do you see that?**

3 **A. Yes.**

4 **Q. So does "first end" in claim 22 have the**
5 **same meaning that it has in claim one?**

6 **A. I think the context of them may be**
7 **different.**

8 **Q. Does "first end" in claim 22 have a**
9 **meaning different from "first end" in claim one?**
10 **And, if so, what is the difference in meaning?**

11 **A. Again, I think it could be, the first end**
12 **can be chosen based on which first bone you choose**
13 **and what second end could be chose on what second**
14 **bone you choose. I think based on the screw**
15 **placement and the trajectories and the way it's**
16 **worded in the claims, I think these contexts, there's**
17 **some difference.**

18 **Q. Are you saying there is a difference in**
19 **meaning or that there might be a difference in**
20 **meaning?**

21 **A. Again, I think it -- at the high level**
22 **with when you talk about a first end and a second end**

1 **and a first bone and a second bone, that's clear in**
2 **both the patents. I think the additional context**
3 **that's added in those claims are different.**

4 Q. I'm not asking about additional
5 requirements, I'm asking whether there's any
6 difference in meaning between "first end" in claim
7 one and the term "first end" in claim 22 and, if
8 there is, just tell us what the difference in meaning
9 is.

10 A. Again, back the my definition in my -- in
11 my declaration, I think it's, you know, the first end
12 is nearer the first bone and the second end is nearer
13 the second bone.

14 Q. Okay. In claim one and in claim 22,
15 right?

16 A. Again, only with regard to the first and
17 second ends and their relation to the first and
18 second bones.

19 Q. Your definition of first end in -- that
20 you gave us doesn't change depending on whether we're
21 using claim one or whether we're using claim 22,
22 correct?

1 **A. Again, as long as the context is that the**
2 **first end is next to the first bone and the second**
3 **end is near the second bone.**

4 Q. Okay. So as long as that's the case, the
5 definition, the meaning of "first end" in claim one
6 is the same as the meaning of "first end" in claim
7 22, correct?

8 **A. If the first bones and the second bones do**
9 **the same.**

10 Q. Okay. And then let's go to claim 39.

11 **A. Of '234?**

12 Q. I'm sorry, of the '234 patent.

13 **A. Okay.**

14 Q. Is the meaning of "first end" in claim 39
15 different from the meaning of "first end" in claims
16 one and 22?

17 **A. Again, this, in 39, it talks about a first**
18 **end portion and a second end portion. So I don't**
19 **think it's the same as first end first bone, second**
20 **end second bone. I think it depends on the portion.**

21 Q. Does "first end portion" have a different
22 meaning from "first end" in claim 22?

1 A. Again, I didn't -- I considered the first
2 end, I wasn't looking at the -- the portions. I just
3 looked at it high level, first end with relation to
4 the first bone and the second end with relation to
5 the second bone.

6 Q. Can you identify today as you sit here any
7 difference in meaning between first end portion in
8 claim 39 and first end portion in claim 22?

9 A. I just know they're different. I don't
10 know what the definition of "portion" is or how it's
11 used or -- I just didn't consider a portion of it. I
12 just looked at it as the end in the bone and that's
13 what I used for my definition.

14 Q. Let me go to the '537 patent, which is
15 Exhibit 3. And in claim one, that refers to first
16 end, correct, at lines 45 to 49?

17 A. I'm sorry, what?

18 Q. I may have gotten the wrong numbers for
19 you, I'm sorry.

20 Okay. I did, I gave you -- I apologize, I
21 gave you the wrong line numbers.

22 Column 37 --

1 **A. Okay.**

2 Q. -- at the bottom, line 66 refers to "a
3 base plate having a top surface, first and second
4 ends," do you see that?

5 **A. Yes, sir.**

6 Q. Does "first end" in claim one of the '537
7 patent have a different meaning from "first end" in
8 claim 22 of the '234 patent?

9 **A. 22 of the '234?**

10 **Again, in keeping with my -- my definition**
11 **in both of these, it's one -- the first end touching**
12 **the first bone or -- and then the second end in**
13 **contact with the second bone.**

14 Q. So I think you're saying assume, assuming
15 we're talking about the same first and second bones,
16 the meaning would be the same in claim one of '537 as
17 it would be in claim 22 of '234. Am I correct?

18 **A. Again, the first end nearer the first**
19 **bone, the second end nearer the second bone.**

20 Q. And is that a -- when we say "first end,"
21 are we talking about a three-dimensional region or
22 portion of the plate or are you talking about just a

1 surface?

2 **A. Again, I don't -- I didn't -- I didn't dig**
3 **into it that deep. I just thought there was an end**
4 **of a plate and it was nearer the first end of the**
5 **bone and a second end of the plate nearer the second**
6 **end of the bone.**

7 **Q. So you can't say one way or another**
8 **whether it's talking about a region, as opposed to a**
9 **surface?**

10 **A. No. I just looked at it as the end. The**
11 **end nearer the -- first end first bone, second end**
12 **second bone.**

13 **Q. Meaning just a surface?**

14 **A. No, just the end. The end of the plate.**

15 **Q. Could you point to -- let's go to a**
16 **figure.**

17 In Figure 1 of the '234 patent --

18 **A. Okay.**

19 **Q. -- where do you believe the first end is?**
20 **What all do you believe is the first end?**

21 **A. Depends what you're calling the first**
22 **bone.**

1 Q. So assume we're calling the first bone the
2 one, the bone on the left.

3 A. **Being number 14?**

4 Q. Yes, there is a lead line 14 going there.

5 A. **So if that, 14, is the first bone, I think**
6 **the top end of the base plate that's nearest first**
7 **bone 14 would be the first end.**

8 Q. And then for the second bone, which,
9 assume that that's number 16, the one on the right,
10 the bone on the right, what's the second end?

11 A. **Again, the second, the second end of the**
12 **base plate that's nearer the second bone.**

13 Q. Well, but let's go back. Let me go back
14 to first end.

15 A. **Okay.**

16 Q. You're saying that the first end is the, I
17 think you said, did you say at the top end? You said
18 the top end.

19 Is that, is that you're referring to the
20 surface and that is abutting the bone?

21 A. **I don't know that. I don't know that I**
22 **meant top.**

1 Q. Yeah, I understand.

2 A. Yeah.

3 Q. That's why I'm going back to it.

4 So is the first end the surface that is
5 abutting the bone, bone 14?

6 A. Again, I don't know that I considered it a
7 surface, I just thought it was the end of the plate.

8 Q. Well, that's why I'm asking. What all do
9 you include in the "first end"? Where does it, in
10 your opinion, begin and where does it end?

11 A. I don't know that I considered where it
12 started or where it ended.

13 Q. Can you say, as you sit here today, where
14 it starts and ends?

15 A. I don't -- I'd have to look at it further,
16 I just hadn't considered that.

17 Q. So as you sit here looking at this figure,
18 you don't know where the first end starts and where
19 it ends, is that correct?

20 A. No. I just, I just considered it in
21 relationship to the bones, to the first bone and the
22 second bone.

1 Q. And as you sit here today, can you tell us
2 where the second end -- so assuming that bone 16, the
3 one on the right, is the second bone, can you tell
4 us, as you sit here today, where the second end
5 begins and where it ends?

6 A. In keeping with my last line, I think that
7 if we're calling 16 the second bone, I think it's the
8 end of the -- the base plate that's nearer the second
9 bone.

10 Q. Okay. Does it include the primary -- I'm
11 sorry. So do you see the screw going into the second
12 bone 16?

13 A. Yes.

14 Q. You understand that that is going through
15 the secondary member? You remember we talked about
16 the secondary member?

17 A. Yes.

18 Q. So that's -- 22 is the secondary member,
19 right?

20 A. I believe that's what it was called, yes.

21 Q. So is all of the secondary member part of
22 the second end?

1 **A. I think it could be.**

2 Q. Is it?

3 **A. If it's the second end of the plate.**

4 Q. Is it? Not "could be." I understand that
5 theoretically it might be.

6 In your opinion, is it part of the second
7 end?

8 **A. I think it's continuous with the base**
9 **plate and it's the second end closest to the second**
10 **bone, so --**

11 Q. So is the answer to my question "yes"?

12 Let me re-ask it.

13 Is all of the secondary member 22 part of
14 the second end, assuming bone 16 is the second bone?

15 **A. I'm not sure that I considered how much of**
16 **the secondary member is included in the second end.**

17 Q. I'm just asking if you can tell us where
18 the second end ends.

19 MR. PIETRANTONIO: Asked and answered.

20 THE WITNESS: Yeah, I think it's just,
21 it's continuous with the base plate. So I'm not sure
22 that I can say.

1 MR. GRIFFITH: Okay. We've been going for
2 another hour. Do you want to take a break? I'm
3 sorry --

4 MR. PIETRANTONIO: Yes, absolutely.

5 THE VIDEOGRAPHER: The time is now 11:18,
6 off the record.

7 (A break was taken.)

8 THE VIDEOGRAPHER: We're back on the
9 record, the time is 11:29.

10 BY MR. GRIFFITH:

11 Q. Mr. Drewry, in how many cases have you
12 testified as an expert witness?

13 A. **And what's your definition of testifying?**

14 Q. Provided declarations in an IPR or given
15 depositions or testified at trial.

16 A. **In --**

17 Q. So --

18 A. **In just patent cases?**

19 Q. Let's start with patent cases, okay?

20 A. **Okay. I really don't know right off. I**
21 **didn't provide my log in this.**

22 Q. I don't think we got it, that's why I'm

1 asking you. I don't think we got a list in the CV.

2 A. I'm trying to think of the number right
3 off. It's been more than five.

4 Q. Okay.

5 A. And then again, some of those had multiple
6 IPR's and multiple declarations and multiple reports.
7 So I don't know exact numbers right off the top of my
8 head.

9 Q. Okay. So there's been more than five
10 patent cases in which you've testified as an expert,
11 either by declaration, deposition or trial testimony?

12 A. I believe that's close, correct.

13 Q. Okay. And in any of those cases, was
14 there actual trial testimony, meaning testimony, live
15 testimony at a trial?

16 A. No, sir.

17 Q. Okay. You and I had a case opposite each
18 other before, correct?

19 A. Well, with the companies. I -- I was --
20 luckily I wasn't -- I was telling, I was behind the
21 scenes designing implants, so --

22 Q. All right. Fair point.

1 So you were an expert in a case for an IPR
2 for Med-Idea against DePuy, correct?

3 **A. I was, yes.**

4 Q. And you were also retained as an expert in
5 the district court litigation, correct?

6 **A. So IPR in the district? Yes.**

7 Q. Right?

8 **A. Yes.**

9 Q. And you were of the view in that case that
10 DePuy infringed the MedIdea patent, correct?

11 **A. I mean, that was the complaint, yes.**

12 Q. And the court disagreed with your view and
13 found as a matter of summary judgment DePuy did not
14 infringe, correct?

15 **A. I don't know that it was based on just my
16 view.**

17 Q. Well, there certainly may have been more
18 to it than just your view, right?

19 **A. Yeah.**

20 Q. But you thought there was infringement,
21 the court found that there was no infringement,
22 correct?

1 **A. I believe so.**

2 **Q. Then can you identify for me by case name**
3 **or party name some of these other cases in which**
4 **you've testified as an expert in a patent case?**

5 **A. I wish I had it in front of me, I'm not --**
6 **I'm not good at memory. So that one you listed. I'm**
7 **working on some pedicle screw, a pedicle screw case**
8 **now. I'm working with K2M on some instruments. I'm**
9 **trying to think of what else I have going on on the**
10 **litigation side.**

11 **Q. Is that litigation against the Biedermann**
12 **company?**

13 **A. The first one is Biedermann and the second**
14 **one is K2M and Orthopediatrics.**

15 **Q. Okay.**

16 **A. I'm trying to remember.**

17 **Those are the big ones now. I'm sorry, I**
18 **just don't have the list in front of me, I'm just**
19 **drawing a blank.**

20 **Q. All right. And I think you said you've**
21 **given deposition testimony around seven times?**

22 **A. Yes, sir.**

1 Q. And how many of those instances were
2 expert, your role as an expert, as opposed to a fact
3 witness?

4 A. Well, I didn't include the fact witness --

5 Q. Okay.

6 A. -- depositions.

7 Q. Okay. So all of the seven were as a -- as
8 an expert witness?

9 A. Yes, sir.

10 Q. And that was either in an IPR or in
11 district court litigation, is that right?

12 A. Yes, sir.

13 Q. Were all of those cases patent cases?

14 A. No, sir.

15 Q. Okay. How many were not patent cases?

16 A. Well, I didn't give you -- well, you said
17 start with the patent cases, so those are the five I
18 gave you --

19 Q. That's fine.

20 A. -- are patent cases.

21 So some of the other cases, you asked how
22 many?

1 Q. Yeah.

2 A. Again, I've probably done over a dozen
3 product liability cases.

4 Q. Okay.

5 A. And one fact witness, Medtronic case.

6 Q. Was that a patent case?

7 A. It was more of a contractual case. It
8 wasn't, it wasn't a patent case.

9 Q. And --

10 A. And I did testify at trial. That one went
11 to trial and I did testify.

12 Q. I noticed in your résumé that you were
13 involved in development of the multiaxial screw in
14 the CD Horizon System --

15 A. Yes, sir.

16 Q. -- is that correct?

17 And that a design that was found to
18 infringe DePuy patents, correct?

19 A. I believe so.

20 Q. It was a design that -- strike that.
21 Okay.

22 You took the position that it didn't

1 infringe, correct?

2 **A. Again, I was -- that was early in my**
3 **career, I was just, I was an entry-level engineer**
4 **just designing implants.**

5 Q. But that product was found, your
6 understanding is that product was found to infringe?

7 **A. Again, I don't recall the specifics.**

8 Q. Okay. Then you were involved in the
9 development of a vertex polyaxial pedicle screw --
10 I'm sorry, let me back up.

11 You were involved in the development of a
12 vertex polyaxial pedicle screw, correct?

13 **A. Vertex Max.**

14 Q. And that was in these -- that was for a
15 rod system in the cervical area, right?

16 **A. Yes, sir, it was.**

17 Q. And that was a system that was found to
18 infringe DePuy patents, correct?

19 **A. Again, I don't -- I don't recall. I mean,**
20 **that was 20 years ago.**

21 Q. Have any other of your product designs
22 been found to infringe other companies' patents?

1 **A. Not that I'm aware of.**

2 Q. When were you retained in this litigation?

3 **A. Again, I believe it was in the Fall of**
4 **2019.**

5 Q. And was claim construction the first task
6 that you were involved in?

7 **A. Yes.**

8 Q. Are you working on the IPR matter?

9 **A. I haven't been asked to do any more than**
10 **what I've provided in this declaration at this time.**

11 Q. And your hourly rate is \$450, is that
12 right?

13 **A. Yes, sir.**

14 Q. And that's the rate you've been paid or
15 are being paid for your work in this case, right?

16 **A. Yes, sir.**

17 Q. To prepare for your deposition, did you
18 meet with counsel?

19 **A. Yes, sir, I did.**

20 Q. For how long?

21 **A. A few hours yesterday.**

22 Q. Did you have telephone discussions before

1 that to prepare for deposition?

2 **A. Not so much for deposition, just in**
3 **preparation in -- we had discussions previously**
4 **but --**

5 Q. When you say a few hours, was it half a
6 day that you spent with counsel preparing for
7 deposition?

8 **A. Maybe half a day.**

9 Q. Okay. Did you, to prepare for your
10 deposition, did you have any discussions with
11 individuals who are not lawyers?

12 **A. No.**

13 Q. And I believe you previously testified
14 that in preparing for your deposition, you reviewed
15 your expert declaration in the '234 and '537 patents,
16 correct?

17 **A. Yes, sir.**

18 Q. Did you review the prosecution history for
19 the patents in suit?

20 **A. A while back, I did.**

21 Q. Did you review RSB's claim construction
22 brief in this case?

1 **A. Again, I believe I saw that early, early**
2 **on.**

3 Q. All right. Have you seen -- have you
4 reviewed in connection with your claim construction
5 work in this case the Lechman '207 patent?

6 **A. No, sir, I have not.**

7 Q. Have you ever heard of that patent?

8 **A. No.**

9 Q. In doing your work in this case or
10 preparing for this deposition, did you review any of
11 the IPR petitions that have been filed --

12 **A. No.**

13 Q. -- with respect to the two patents in
14 suit?

15 **A. No, sir.**

16 Q. Is there anything else that you reviewed
17 in connection with preparing for your deposition?

18 **A. There was two articles that we included in**
19 **the deposition in another patent. So I think we had**
20 **three additional references that were part of the**
21 **references that I reviewed.**

22 Q. They were references that were cited in

1 your expert report?

2 **A. Yes, sir.**

3 **Q. So there was an FRA --**

4 **A. Yeah. I think it was a Thalgott reference,**
5 **a Bagga, a patent reference, and then another one**
6 **from -- yeah, one was FRA and then I think Dr.**
7 **Thalgott's was the coral article.**

8 **Q. Okay.**

9 **A. So --**

10 **Q. Anything else that you reviewed in**
11 **preparing for your deposition --**

12 **A. No, sir.**

13 **Q. -- that comes to mind?**

14 **A. No.**

15 **Q. In doing your analysis on claim**
16 **construction, did RSB lawyers provide you with RSB's**
17 **proposed constructions for those terms?**

18 **A. No. I believe they gave me the words that**
19 **they were looking for and I -- I went and I searched**
20 **in the patents where they came up and that's where I**
21 **started looking.**

22 **Q. So in your declaration --**

1 **A. Initially. Initially, that's how I**
2 **started.**

3 Q. Right. At some point, you got RSB's
4 proposed constructions, right?

5 **A. In the -- in the -- what do you call them,**
6 **in the claim charts, I guess or the --**

7 Q. Yeah.

8 **A. Yeah. I did get those.**

9 Q. And so you, hence, in your declaration,
10 you have charts that set forth the Plaintiff's
11 position and Defendants' position, right?

12 **A. That I was asked to opine, yes.**

13 Q. Correct. You didn't opine on all terms,
14 correct --

15 **A. Correct.**

16 Q. -- that are at issue.

17 Now, but you did not, are you telling me
18 that you did not receive Plaintiff's proposed claim
19 constructions before doing your initial analysis on
20 claim construction?

21 **A. That is correct.**

22 Q. And did you form an initial opinion about

1 what the claim terms at issue, the ones that you were
2 looking at, meant before receiving RSB's proposed
3 constructions?

4 **A. Can you repeat that again? I'm trying**
5 **to --**

6 Q. Sure.

7 **A. I'm trying to -- the timing.**

8 Q. Did you form an initial opinion about what
9 the claim terms that you were asked to look at meant
10 before receiving RSB's proposed constructions?

11 **A. You know, I don't recall. I don't know if**
12 **I -- I remember we discussed terms and I just don't**
13 **remember at what point I saw those.**

14 Q. At some point, for all of the claim terms
15 you were asked to look at, you adopted RSB's proposed
16 constructions, is that correct?

17 **A. I'm trying to think if I adopted them. As**
18 **I came in and I reviewed the -- the patents and**
19 **everything, there were some definitions that were**
20 **there in the specification that we chose, I chose**
21 **through my review. So, again, I'm not sure of the**
22 **timing.**

1 Q. Did you -- do you recall suggesting any
2 changes to RSB's proposed constructions?

3 A. I'm really not sure.

4 Q. Are the claim terms that you were asked to
5 consider and opine on, are they only the claim terms
6 that are addressed in your declaration?

7 Do you understand my question?

8 A. Yeah. Yes, I believe -- these are the
9 only ones that I looked at and considered.

10 Q. So was there a claim term that you opined
11 on and they said, Eh, let's not put that in the
12 declaration?

13 A. I don't believe so.

14 Q. Exclusive of your curriculum vitae which
15 is attached to your declaration, did the lawyers for
16 RSB give you all of the materials that you cited in
17 your report?

18 A. I think they went out and retrieved the
19 documents, but I think when we were talking about
20 them and we were looking for exemplars for those, I
21 identified some areas where we could look.

22 Q. So you may have identified some areas

1 where to look and then the lawyers came back with --

2 **A. Yeah. I mean --**

3 **Q. -- some references?**

4 **A. -- Cooley pdf'd or downloaded the document**
5 **or did whatever.**

6 **Q. Now, we talked about the definition of**
7 **"spacer" in your declaration and how you wanted to**
8 **add the word "typically" to that definition. Do you**
9 **recall that?**

10 **A. Uh-huh.**

11 **Q. Are there any other changes that you felt**
12 **that when you were preparing for this case that you**
13 **needed to make to your declaration?**

14 **A. No. I -- that was just the one that**
15 **jumped out at me yesterday as I was re-reading it.**
16 **So I'm good with that only -- only that correction or**
17 **change, addition.**

18 **Q. Mr. Drewry, in paragraph 14 of your**
19 **declaration -- that's on page five, you mention in**
20 **the last line of that extrinsic evidence, do you see**
21 **that?**

22 **A. Uh-huh.**

1 Q. What do you understand that to be?

2 A. I don't know, I guess evidence that's
3 outside of -- outside of the references that I --
4 were given, I guess. I don't know. I never really
5 considered it.

6 Q. Okay. You understand that your testimony
7 is extrinsic evidence?

8 A. Yes.

9 Q. You say that there, right?

10 A. Yeah.

11 Q. Do you understand that extrinsic evidence
12 like your testimony cannot be used to contrap -- to
13 contradict the specification claims or prosecution
14 history of the patents in suit?

15 MR. PIETRANTONIO: Objection to the extent
16 it calls for a legal conclusion.

17 THE WITNESS: Yeah, I'm not -- I'm not
18 really sure.

19 MR. GRIFFITH: You don't know?

20 THE WITNESS: Yeah.

21 BY MR. GRIFFITH:

22 Q. Do you understand that if an opinion in

1 your declaration or in your testimony contradicts the
2 intrinsic evidence, it is entitled to no weight?

3 MR. PIETRANTONIO: Objection, calls for a
4 legal conclusion.

5 THE WITNESS: Again, I'm not, I'm not
6 sure.

7 BY MR. GRIFFITH:

8 Q. Let me ask you a couple questions about
9 the level of skill in the art that's on page three,
10 going on to page four.

11 A. Okay.

12 Q. Do you see that?

13 A. Yes, sir.

14 Q. Does a person of ordinary skill in the art
15 with respect to the '234 and '537 patents have to
16 have experience with spinal implants?

17 A. No.

18 Q. So in doing your analysis, you believe
19 that a person of ordinary skill in the art could have
20 no experience with spinal implants. They might have
21 it, but they're not required to have it, is that
22 fair?

1 **A. That's fair.**

2 Q. Has the invention claimed in the patents
3 in suit ever been used other than as a spinal
4 implant?

5 MR. PIETRANTONIO: Objection, outside the
6 scope.

7 THE WITNESS: Can you repeat the question?

8 BY MR. GRIFFITH:

9 Q. Has the invention claimed in the patents
10 in suit ever been used other than as a spinal
11 implant?

12 MR. PIETRANTONIO: Object.

13 THE WITNESS: Oh, I have no, I have no
14 idea.

15 BY MR. GRIFFITH:

16 Q. Do you have any idea whatsoever what an
17 engineer for knee replacements, how they would use
18 the invention of the '234 and '537 patents?

19 MR. PIETRANTONIO: Objection, outside the
20 scope.

21 THE WITNESS: Yeah, I -- I haven't
22 considered that.

1 BY MR. GRIFFITH:

2 Q. Do you have any idea how an orthopedic
3 designer, an implant designer, outside of spinal
4 implant area would use the invention of the '234 and
5 '537 patents?

6 MR. PIETRANTONIO: Objection, outside the
7 scope.

8 THE WITNESS: Again, I haven't considered
9 that.

10 BY MR. GRIFFITH:

11 Q. You mention that a person of skill could
12 have two or more years of experience. Do you see
13 that?

14 A. Uh-huh.

15 Q. Could a person of ordinary skill have five
16 years of experience in designing spinal implants?

17 A. Yes, they could.

18 Q. And -- and that would not be unheard of or
19 extraordinary for a person designing spinal implants
20 of ordinary skill to have had five years' of
21 experience in doing so, is that fair?

22 A. Well, again, I state two or more years' of

1 **experience, so --**

2 Q. And consistent with that, the person of
3 ordinary skill could have five years' of experience,
4 correct?

5 **A. He could.**

6 Q. So it could be --

7 **A. She could.**

8 Q. He or she, thank you.

9 So a person of ordinary skill could have a
10 bachelor's degree in mechanical engineering or
11 biomedical engineering and five years' of experience
12 in mechanical engineering, biomedical engineering
13 and/or spinal implant devices, is that fair?

14 **A. Yes.**

15 Q. Do you know Dr. Bray?

16 **A. Over the years, yes. I -- I mean with**
17 **Medtronic, I mean a long time ago.**

18 Q. You've met him?

19 **A. A long time ago, I have.**

20 Q. Did he try to license this invention to
21 Medtronic?

22 **A. I don't know.**

1 Q. Did you discuss this technology with him?

2 A. No.

3 Q. Have you spoken to Dr. Bray about this
4 litigation?

5 A. I have not.

6 Q. Have you spoken to Dr. Bray about the '234
7 or '537 patents?

8 A. No.

9 Q. You've seen some patents to -- let me
10 rephrase that.

11 Have you seen some patents to a
12 Dr. Frazier that relate to the prosecution history of
13 the patents in suit?

14 A. Yes, I think I did in the prosecution
15 history.

16 Q. Do you know Dr. Fraser?

17 A. I've met him, yes.

18 Q. Have you discussed this litigation with
19 him?

20 A. [Shakes head.]

21 Q. Have you discussed these patents with him?

22 A. No.

1 Q. Do you know Dr. Michelson?

2 A. Yes.

3 Q. Of course. At Medtronic.

4 So have -- and he has some prior art in
5 this area, correct?

6 A. Yes.

7 Q. Have you discussed this litigation with
8 Dr. Michelson?

9 A. No.

10 Q. Have you discussed the -- any Bray patent
11 with Dr. Michelson?

12 A. Not -- I may -- I talked to Michelson
13 probably 12, 15 years ago, and I don't know if those
14 came up at that time. But not in relation to this
15 litigation.

16 Q. Okay. Do you have any recollection --

17 A. No.

18 Q. -- of having discussed the --

19 A. No, no.

20 Q. -- Bray patents with him?

21 A. I don't think so.

22 Q. Is your CV that's attached to your

1 declaration complete?

2 **A. It is.**

3 Q. It identifies all of your degrees,
4 correct?

5 **A. Yes, sir.**

6 Q. When did you first hear of the '234
7 patent?

8 **A. Probably -- you know, I was working in**
9 **that space around that time. So just keeping up with**
10 **the industry and keeping up with things, I'm sure I**
11 **may have come across it back then when I was still**
12 **working.**

13 Q. That's fair. So let me rephrase, phrase
14 it.

15 You -- are you able to recall specifically
16 seeing the '234 patent or the published patent
17 application that may correspond to it back when you
18 were at Medtronic doing design work in this area?

19 **A. Again, I don't recall if I did or not.**

20 Q. But it's entirely possible you did because
21 you kept up on things, is that right?

22 **A. Yes, sir.**

1 Q. And have you heard of a device on the
2 market -- strike that.

3 Have you heard of a device promoted by RSB
4 or Dr. Bray called the interplate device?

5 A. **I think I've heard the name before.**

6 Q. What do you recall about it?

7 A. **Not -- I think I just saw it in passing.**
8 **I don't know that I gave it much thought.**

9 MR. GRIFFITH: Okay. I'm ready to --

10 MR. PIETRANTONIO: Do you want to go off
11 the record for two minutes --

12 MR. GRIFFITH: Sure. That's just fine.

13 MR. PIETRANTONIO: -- to just do the
14 transition.

15 THE VIDEOGRAPHER: The time is now 11:55,
16 off the record.

17 (Off the record.)

18 THE VIDEOGRAPHER: We're back on the
19 record, the time is now 11:56.

20 MR. SHERWIN: Do you have a question?

21 THE WITNESS: I was going to get some
22 water.

1 MR. SHERWIN: Yeah, we'll get some water,
2 that's fine.

3 (Mr. Griffith hands the witness a glass of
4 water.)

5 THE WITNESS: Thank you, sir.

6 MR. GRIFFITH: Yeah, sure.

7 EXAMINATION BY COUNSEL FOR DEFENDANT MEDACTA

8 BY MR. SHERWIN:

9 Q. Mr. Drewry, I'd like to start by asking
10 you some questions about some anatomy of a vertebrae.

11 You agree that the cortical shell is the
12 dense, bony outer surface of a vertebrae, correct?

13 A. **Repeat, repeat it again. I just, I want**
14 **to make sure.**

15 Q. You agree that the cortical shell is the
16 dense, bony outer surface of a vertebrae, correct?

17 A. **I don't know that it's completely the**
18 **outer surface. I think there's cortical components.**
19 **I don't know that it's necessarily the shell in -- in**
20 **the surface. I don't know, I --**

21 Q. Are you not sure if the cortical bone
22 covers the entire vertebrae, is that the issue?

1 **A. Correct.**

2 Q. So you know that the cortical shell covers
3 at least portions of the surface of the vertebrae, is
4 that correct?

5 **A. And by "shell," what do you -- what do you**
6 **mean by "shell"?**

7 Q. How would you describe the cortical shell
8 of a vertebrae?

9 **A. I mean, I think there's some thickness of**
10 **bone, some of it cortical in different areas that is**
11 **part of the vertebral body.**

12 Q. And you agree that that cortical bone is
13 distinct from the cancellous bone on the interior of
14 the vertebrae, right?

15 **A. Not -- yeah, I don't think it's only**
16 **interior -- I mean, interior to the vertebral body,**
17 **but yes, they're different. Cortical bone and**
18 **cancellous are different.**

19 Q. And you agree that cortical bone has a
20 plain and ordinary meaning in the medical profession,
21 right?

22 **A. Yes.**

1 Q. And would you also agree that cancellous
2 bone has a plain and ordinary meaning in the medical
3 profession, correct?

4 A. Yes.

5 Q. Your opinion is that the cortical rim is
6 the region of cortical bone that surrounds the end
7 plate, as viewed from either the superior or interior
8 perspective, correct?

9 A. Again, I think there's a -- for lack of a
10 better term, I think it's kind of a horizontal
11 component and a vertical component of that rim or
12 that apophyseal ring. I mean, I think there's a
13 thickness component.

14 Q. So your opinion is that the cortical rim
15 has a region that is both on the end plate but then
16 also on the anterior and posterior surfaces of the
17 vertebral body, correct?

18 A. Again, I think it's a three-dimensional
19 surface -- I mean, a three-dimensional entity, so --

20 Q. It's your opinion that the cortical rim
21 has the same meaning as the outer rim of the cortex,
22 is that correct?

1 **A. I'm sorry, can you repeat that?**

2 Q. You agree that the cortical rim has the
3 same meaning as the outer rim of the cortex, correct?

4 **A. No, I don't think it has the same meaning.**

5 Q. So you think there's some difference in
6 those meanings?

7 **A. Yeah, I think there can be a cortical rim
8 that's not part of that.**

9 Q. What's the distinction between a cortical
10 rim and an outer rim as you have used those terms in
11 your declaration?

12 **A. Where are you referencing, in my
13 declaration?**

14 Q. For example, you can look at paragraph 36.

15 **A. 36 --**

16 Q. This is Exhibit Number 1.

17 Now my question is what are you defining
18 as the hard cortical bone that forms an outer rim?

19 **A. Again, I think it's the cortical bone that
20 has a -- again, a -- it's hard to describe it. It
21 has a thickness and a depth and it's apparent on this
22 surface and the top or anterior surfaces, as well.**

1 Q. And your opinion is the cortical rim does
2 not have that same three-dimensional structure, is
3 that correct?

4 A. **No, I think it does.**

5 Q. So then my question is how is the hard
6 cortical bone that forms an outer rim, as you've used
7 that term in your definition, different from the
8 cortical rim of the bone or is it your opinion those
9 are the same meaning?

10 A. **I don't think they're mutually exclusive,**
11 **I think there's components of each.**

12 Q. And which term are you saying is broader
13 there?

14 MR. PIETRANTONIO: Objection, vague.

15 THE WITNESS: Yeah, I'm getting -- I'm
16 sorry, I'm getting a little confused on the two.

17 BY MR. SHERWIN:

18 Q. So my question is can you identify any
19 differences between the term "cortical rim" and "hard
20 cortical bone that forms an outer rim"?

21 A. **Again, the terms "outer," you know, I**
22 **don't know that it necessarily has to be outer. I**

1 **don't know, I really do not understand. I -- as**
2 **they -- I don't know how to differentiate the two.**

3 Q. So as you sit here, you can't think of any
4 differences between those two terms, is that correct?

5 A. Well, again, I think they're -- I don't
6 think they're mutually exclusive of each other, so I
7 don't know that I would -- I would -- I don't know in
8 defining them if I would exclude one from the other.

9 Q. But as you sit here, you can't tell me
10 what any differences are between where the cortical
11 rim exists on a vertebrae as compared to where the
12 outer rim exists on a vertebrae, is that correct?

13 A. Again, I think it varies by, you know, by
14 patient, by weight, by -- there's just a lot of
15 factors that would affect those, those two
16 components.

17 Q. And how would any of those variables
18 affect which region of the bone is the cortical rim?

19 A. Which one of those factors would affect
20 it?

21 Q. Yes. What effect where that is located on
22 a vertebrae?

1 **A. I think if a patient has osteoporosis, if**
2 **it has, you know, maybe trauma or some other**
3 **condition, it may affect the size, shape, location of**
4 **that bone.**

5 Q. And would any of those factors affect
6 where the outer rim is located on a vertebral body?

7 **A. It could.**

8 Q. And what ways could it?

9 **A. Again, depending on the condition, you**
10 **know, if it was a trauma or if it was some other bone**
11 **disease or something, it could affect, you know,**
12 **where those components are and how I would define**
13 **them.**

14 Q. In the same paragraph, you also refer to
15 the apophysesal ring. Do you see that?

16 **A. I'm sorry, which paragraph are we on,**
17 **again?**

18 Q. Still on paragraph 36.

19 **A. 36.**

20 Q. It's at the very top of page 11.

21 **A. Yes.**

22 Q. Does the apophyseal ring have the same

1 meaning as the outer rim?

2 **A. Again, I think there's a vertical**
3 **component, that's what I'm trying to get at.**
4 **There's an apophyseal ring that's a ring in this**
5 **view, but I also think that it has a depth component**
6 **to it and I think that it's -- it's not a**
7 **two-dimensional entity, if you will, it's -- it's a**
8 **three-dimensional, a three-dimensional entity that**
9 **goes around the vertebral bodies.**

10 **Q. And that's also true of the outer rim,**
11 **correct?**

12 **A. Again, I think the outer rim is part of**
13 **that discussion.**

14 **Q. And that's also true of the cortical rim,**
15 **correct, in the sense that it has both a**
16 **three-dimensional aspect where we can see a portion**
17 **of that surface in the view you have in paragraph 36,**
18 **but, also, it has a depth or a thickness, as you**
19 **referred to it, correct?**

20 **A. It could, yes.**

21 **MR. PIETRANTONIO: I believe we're on**
22 **Exhibit 6, is that correct?**

1 MR. GRIFFITH: Yes.

2 (Drewry deposition Exhibit Number 6 was
3 marked for identification and attached to the
4 transcript.)

5 BY MR. SHERWIN:

6 Q. You agree that this is an image of a
7 lumbar vertebrae, correct?

8 A. Yes.

9 Q. You said you were having a little bit of
10 trouble identifying where some of these terms were,
11 so I'd like you to identify where those terms are for
12 me. Let's start with the cortical rim.

13 Do you have a pen? Here, I'll hand you
14 one.

15 A. I don't.

16 Q. Passing one right now.

17 A. Okay.

18 Q. Could you please identify on these two
19 views of the vertebral body where the cortical rim
20 is. You can feel free to circle it or shade it where
21 you think those regions are, please.

22 A. Now, again, with my assumptions that I

1 told you later [sic] -- you know, the thicknesses of
2 this rim, the location, it can be affected by age, it
3 could be affected by a lot of different things. So I
4 don't -- it's hard for me to tell on a
5 two-dimensional image like this where cortical bone
6 starts, where cortical bone stops and that sort of
7 thing. So I don't know that giving these images
8 without -- it'd be better to have an X-ray to where I
9 could see the weighting of the particular bone in
10 relation to cancellous and cortical bone. So I'm not
11 comfortable giving you exact borders of this bone
12 based on these images.

13 Q. Well, can you give us approximate borders
14 by drawing where those are? And then I understand
15 your caveat is that you're only trying to encompass
16 cortical bone.

17 A. Again, you know, just so I'm clear, you
18 know, this can be affected by age, weight, bone
19 density, sex, race, ethnicity. So that's where all
20 the other kind of assumptions that you would have to
21 consider when doing this sort of thing.

22 Q. Understood.

1 With those caveats in place, can you
2 identify on these two images where the cortical rim
3 is?

4 **A. Again, in a three-dimensional state, I**
5 **don't know where they would start and stop. But I**
6 **would say generally, you know, in -- in these areas.**
7 **And, again, not knowing where they start and stop,**
8 **they're -- they're in some range in those windows.**

9 Q. Sure.

10 On the -- on the bottom figure, which is a
11 superior view of a vertebral body, it looks like you
12 drew two circles. I just want to make sure I
13 understand what that means. You're --

14 **A. Well, you know, whatever that outside.**
15 **I'm comfortable saying it's got to be within the --**
16 **obviously it can't be in the space, so --**

17 Q. Yeah, I think that's the point that I want
18 to clarify and I think we're on the same page here.

19 You're only identifying the cortical rim
20 as a particular ring around the exterior of the
21 vertebral body and you're excluding some portion of
22 the interior of that vertebral body, correct?

1 **A. Again, I don't know where those start and**
2 **stop, so it's hard for me to -- to draw and**
3 **distinguish.**

4 Q. But you do agree that the cortical rim
5 does not cover the entire end plate of this vertebral
6 body that we're looking at, correct?

7 **A. It could.**

8 Q. So your opinion is the cortical rim could
9 cover the entire end plate?

10 **A. I mean, again, based on -- there may be**
11 **people out there that have osteophytic conditions or**
12 **diseases that cause their end plates to ossify and --**
13 **and that would be cortical bone. I can't sit here**
14 **and say that it is or it isn't.**

15 Q. Would you agree that typically the
16 cortical rim does not include the interior portion of
17 that end plate, although it is possible in some
18 situations?

19 **A. I'm sorry, repeat that.**

20 Q. You would agree that typically the
21 cortical rim does not include the interior portions
22 of the end plate, as we're looking at it from the

1 superior direction, although it could happen in
2 certain circumstances, correct?

3 **A. In some circumstances, yes.**

4 Q. I think that's because some of the factors
5 that you wrote on this particular image right now,
6 that those factors could determine how thick or how
7 thin that cortical rim is, correct?

8 **A. Yes.**

9 Q. And one of the other terms that we talked
10 about, then, was the outer rim as you have used that
11 term in paragraph 36 of your declaration. You can go
12 ahead and open that up.

13 **A. 36, you said?**

14 Q. Yes. 36, please.

15 **A. Okay.**

16 Q. It spans pages ten and 11.

17 And so the question that I was having --
18 asking you before is whether there's any distinction
19 in where the cortical rim is located on a vertebral
20 body, as compared to where the outer rim is located
21 on the vertebral body.

22 My question for you is can you identify on

1 Exhibit Number 5, using a red -- yeah, thank you.

2 [Mr. Griffith hands a red pen to the
3 witness.]

4 MR. GRIFFITH: This one will be better.

5 MR. SHERWIN: It doesn't matter. It is
6 just a different color, so we can tell the
7 difference.

8 BY MR. SHERWIN:

9 Q. So can you identify how the cortical rim
10 is distinct from the outer rim?

11 MR. PIETRANTONIO: And just to be clear
12 for the record, it's Exhibit 6, right, not on Exhibit
13 5?

14 MR. SHERWIN: I'm sorry, yes, on Exhibit
15 6, please.

16 BY MR. SHERWIN:

17 Q. Or if you think that they're the same
18 thing. I just want to understand if there's a
19 distinction or if there's not. If there's a
20 distinction, I would like to see what that
21 distinction is in your opinion as you look at
22 Figure -- I'm sorry, Exhibit 6.

1 A. Yeah. Again, I -- I'm just struggling
2 with where they start and where they stop based on
3 the bones, so I'm trying to figure out if
4 those are -- could be the same or are the same.

5 And, again, not knowing the thick -- you
6 know, with all the caveats that I've put down on
7 here, I don't know, I think, you know, I think
8 there's a -- again, not knowing where this stops and
9 starts on these things, I think there's a component
10 of that there. You know, I don't know where this
11 start or stops.

12 Q. And so what are you depicting in the red
13 ink, which is the outer rim? What are you trying to
14 depict there to show that it's different than what
15 the cortical rim is?

16 A. Again, I don't know that they're
17 different. I think there's -- you know, if you take
18 the cortical rim, there's a depth to it. And I don't
19 know, I just think there's a three-dimensional
20 component to that that -- that I'm trying to describe
21 it. So I -- it's a ring with a depth, I guess is
22 what I'm trying to -- and it's three-dimensional and

1 **it, you know, it covers 360 degrees of the vertebral**
2 **body.**

3 Q. And that's true for both the cortical rim
4 and the outer rim, right?

5 A. **It could.**

6 Q. And your opinion in Exhibit 6, it does,
7 correct?

8 A. **Again, I don't know because I don't**
9 **know -- again, not having any information on the**
10 **cancellous bone, I'm -- I'm reluctant to say that**
11 **it's -- where it starts and where it stops.**

12 Q. It seems to me that you've identified the
13 same regions of the bone for both the cortical rim
14 and the outer rim. So in this particular depiction
15 in Exhibit 6, you would agree they're the same,
16 correct?

17 A. **No, I'm not saying they're the same. I**
18 **think one's a -- there's a -- again, there's a**
19 **vertical component of this bone based on some**
20 **thickness of cortical bone that determines where that**
21 **is, and there's also a horizontal component, again,**
22 **based on the factors that I addressed earlier.**

1 Q. So when you're referring to the horizontal
2 and vertical components, you're referring to the top
3 image in Exhibit 6, the profile view of the vertebral
4 body, correct?

5 A. Well, I think that's -- yeah, that's where
6 I was drawing that.

7 Q. Right. And when you were drawing those
8 lines in red, you're referring to the outer rim
9 having that vertical and horizontal component,
10 correct?

11 A. Not necessarily the outer rim. I think
12 that's part of the cortical rim, as well.

13 Q. So those lines depict both the outer rim
14 and the cortical rim?

15 A. Again, I think there's a combination of
16 the two and it's three-dimensional. I think there's
17 a depth and -- I don't know. I don't know that I
18 have anything else to add.

19 Q. You also mention in your declaration the
20 apophyseal ring. Is the apophyseal ring the same as
21 the cortical rim or the outer rim as you've depicted
22 in Exhibit 6, or is there some difference in the way

1 it's depicted in this vertebral body?

2 **A. Again, I think the apophyseal ring is**
3 **similar to the cortical rim on those surfaces, but,**
4 **again, not having the ability to differentiate where**
5 **they start and stop.**

6 **Q. Is there anything that you can depict on**
7 **Exhibit 6 in blue for the apophyseal ring that's**
8 **different than what you've depicted for either the**
9 **cortical rim or the outer rim?**

10 **A. Not really.**

11 **Q. You said the apophyseal ring, that is**
12 **co-extensive with the cortical rim --**

13 **A. Again, could --**

14 **Q. -- in Exhibit 6?**

15 **A. It could be. Just depending on the**
16 **patient, depending on the morphology of the end**
17 **plates, of the bone quality. Again, there's some**
18 **instance where there's no ring, there's no rim.**
19 **There's -- I mean, there's cortical bone the whole**
20 **surface. So, again, I just don't know with the**
21 **information you've given me where that starts or**
22 **where it stops.**

1 Q. So in order to make a determination about
2 where the cortical rim, the outer rim and the
3 apophyseal ring are, you said you would need to look
4 at a CT, is that correct?

5 A. Well, there's multiple imaging techniques
6 you could use: You could use CT, you could use
7 X-ray. There's other imaging modalities that could
8 be used to identify that.

9 Q. But until you look at one of those imaging
10 modalities that you've listed, you wouldn't be able
11 to make a determination about where these are,
12 correct?

13 A. I wouldn't be comfortable in this
14 particular image identifying what you're asking for,
15 no.

16 Q. You agree that this is -- or I can
17 represent to you that what this is is an image of a
18 lumbar portion of the vertebrae. You would agree
19 that another one of the differences in determining
20 where the cortical rim, the outer rim and the
21 apophyseal ring are would be different if you were in
22 a different part of the spine, correct?

1 **A. It could be.**

2 Q. So, for example, if you're looking at, you
3 know, a cervical bone, defining where those regions
4 of the vertebrae are would be different than if you
5 were looking at one of the lumbar bones of the same
6 person, correct?

7 **A. I mean, there could be differences based**
8 **on the anatomic regions.**

9 Q. Again, that's something you would have to
10 look at one of those imaging modalities to make a
11 determination about where these various regions of
12 the bone occur, correct?

13 **A. I would be more comfortable with that**
14 **information to make that.**

15 Q. Are you saying that someone else would be
16 able to just look at an image of a bone and make that
17 determination, just that person isn't you?

18 **A. No. I'm just saying for me to answer the**
19 **question that you're asking, I'd like more**
20 **information.**

21 Q. You agree that a vertebral body also has
22 an end plate, correct?

1 **A. Yes, it does.**

2 Q. And those end plates typically have a
3 layer of cartilage and a layer of bony tissue,
4 correct?

5 **A. They can.**

6 Q. Typically, though, cartilage layer abuts
7 against the disc and the cartilage layer connects --
8 I'm sorry, and the bony layer connects to the
9 cartilage layer and the rest of the vertebral body,
10 correct?

11 **A. Again, they can.**

12 Q. And you agree that's typical, though,
13 correct?

14 **A. I -- I'd say typical.**

15 Q. Is it your opinion that the end plate is
16 the entire surface of the vertebral body as shown in
17 the superior image in Exhibit 6?

18 **A. So, again -- I'm sorry, explain that**
19 **again? Or in the lower image --**

20 Q. Yeah.

21 **A. -- Figure 6?**

22 Q. I'll just say it again to make sure we're

1 on the same page.

2 So on Exhibit 6, the image on the
3 bottom --

4 **A. Yes.**

5 Q. Do you agree that the end plate is the
6 entire surface of the vertebral body, as depicted on
7 here?

8 **A. Yes, I do.**

9 Q. So you would agree, then, that the end
10 plate includes the cortical rim, correct?

11 **A. Yes.**

12 Q. And it also includes the outer rim,
13 correct?

14 **A. Again, with the -- with the caveats that I**
15 **gave earlier in the -- in the, you know, depending on**
16 **where that is and the thickness and that sort of**
17 **thing. But just looking at it from this view, I**
18 **think it includes that surface.**

19 Q. And you also agree, then, that it includes
20 the apophyseal ring, as well, correct?

21 **A. Yes.**

22 Q. I'll say that again just because I think I

1 misstated.

2 You also agree that the end plate includes
3 the apophyseal ring, correct?

4 **A. That surface includes the apophyseal ring,**
5 **yes.**

6 Q. When you say "that surface," you're
7 referring to the end plate, right?

8 **A. Everything in Figure C that I circled on**
9 **that surface.**

10 Q. You understand that the '234 and '537
11 patents use side surface of the bone, correct?

12 **A. Yes, sir.**

13 Q. Is it your opinion that the end plate is
14 the side surface of the bone as that term is used in
15 the '234 and '537 patents?

16 **A. I'm sorry, repeat the question.**

17 Q. You agree that the end plate of a
18 vertebral body is the side surface of the bone, as
19 that term is used in the '234 and '537 patents,
20 correct?

21 **A. I just want to be clear on my -- my**
22 **definition so that I use the right words.**

1 Q. Sure.

2 A. So, again, I think it's, you know, we
3 designed it as the surface generally facing each
4 other as -- from the perspective of the surgeon
5 looking down onto the spine, doing an anterior
6 procedure. So that surface, you said the end plate,
7 I think it -- it's -- it's the whole surface that
8 faces the adjacent bone, the other side surface. So
9 it can include the cortical rim, the apophyseal rim
10 [sic], the end plate, all of those. I don't think
11 they're mutually exclusive of each other.

12 Q. So you would say all of those, the
13 cortical rim, the outer rim, the apophyseal ring and
14 end plate, those are all encompassed in your
15 understanding of the scope of the meaning of the term
16 "side surface," correct?

17 A. Again, they could be. If they're there
18 and, you know, based on the -- what I said below,
19 I -- I look at it as that surface in Figure C.

20 Q. When you say "that surface," that's the
21 surface you've used --

22 A. Circled.

1 Q. -- with black ink to --

2 A. Well, no. Black and red.

3 Q. The black and red, correct?

4 A. [No response.]

5 Q. Is that correct?

6 A. Yes.

7 Q. Do you agree that a vertebral body can
8 have a periosteum layer, correct?

9 A. I'm sorry? Can you repeat?

10 Q. Do you agree that a vertebral body can
11 have a periosteum layer?

12 A. You know, I'm not sure that I ever thought
13 of it or -- or considered that. So I'm not sure.

14 Q. Do you know what a periosteum layer is?

15 A. Not as it relates to the spine. Again,
16 I'm not sure that I've ever used that term.

17 Q. So you're not familiar with that term as
18 you sit here today, correct?

19 A. Again --

20 MR. PIETRANTONIO: Mischaracterizes his
21 testimony.

22 THE WITNESS: Again, I've just never used

1 that term in relation to the spine. I -- I've just
2 never had cause to, I guess.

3 BY MR. SHERWIN:

4 Q. You're not a medical doctor or a surgeon,
5 correct?

6 A. **No, sir.**

7 Q. So as you sit here today, you wouldn't be
8 able to identify where the periosteum layer is on a
9 vertebrae, is that correct, then?

10 A. **No.**

11 Q. Let me say the question again, make sure
12 we're on the same page.

13 As you sit here today, you're not able to
14 identify where the periosteum layer is on a
15 vertebrae, correct?

16 A. **Again, I'm not sure what periosteum on a**
17 **vertebral body is.**

18 Q. So that's a yes, you can't identify it?

19 A. **Yes.**

20 Q. You understand that Defendants and RSB
21 have a dispute about the meaning of the term "lip
22 osteophyte," correct?

1 **A. Yes, sir.**

2 **Q. Have you considered Defendants'**
3 **construction?**

4 **A. Have I considered it? I've read it.**

5 **Q. Do you understand it?**

6 **A. As it -- as it states in my report, I**
7 **understand it.**

8 **Q. And do you agree with that meaning?**

9 **A. I do not.**

10 **Q. And have you considered RSB's proposed**
11 **construction for the term "lip osteophyte"?**

12 **A. Again, when I set out and was asked to**
13 **opine on this term, I looked at "lip osteophyte," I**
14 **looked at it as it was referenced in the IP or in the**
15 **patents themselves and, you know, as Dr. Bray cited**
16 **on his clinical experience and he documented in the**
17 **patent that the lip osteophyte is the strongest part**
18 **of the bone or the structurally the strongest -- the**
19 **strongest portion of the bone. And I was in**
20 **agreement with that.**

21 **Q. So you agree with RSB's proposed**
22 **construction, is that correct?**

1 **A. Well, again, I think I agreed with**
2 **Dr. Bray and the patent first, and then that was**
3 **the -- again, as we looked at the definition and what**
4 **I was asked to -- to opine on, lip osteophyte, they**
5 **were, they were consistent.**

6 **Q. And it's your opinion that the term "lip**
7 **osteophyte," as those are -- as those words are used**
8 **in the '234 and '537 patent claims, does not have a**
9 **plain and ordinary meaning, correct?**

10 **A. Again, the definition I have used for "lip**
11 **osteophyte" was the definition that was given in the**
12 **patent.**

13 **Q. Okay. Why don't you go to paragraph 34,**
14 **please, of your declaration, Exhibit 1.**

15 **A. I'm here. Okay.**

16 **Q. In there, you state that, "A person of**
17 **ordinary skill would not have understood the term**
18 **'lip osteophyte' to have any ordinary and customary**
19 **meaning in the field at the time of the invention."**
20 **That was your declaration statement, correct?**

21 **A. Correct.**

22 **Q. So you agree that the term "lip**

1 osteophyte" as that term is used in the claims, does
2 not have a plain and ordinary meaning, correct?

3 **A. As it states here, yes.**

4 Q. Okay. Before we talk about the term "lip
5 osteophyte," I'd like to talk about those two terms
6 on their own as they're used in the medical
7 profession.

8 You agree that the term "osteophyte" is a
9 term that's used in the medical profession, correct?

10 **A. Again, I was asked to opine on the**
11 **combination "lip osteophyte," so I didn't consider**
12 **the two independently.**

13 Q. Well, you agree that the term "osteophyte"
14 means a bony excrescence or an osseous outgrowth,
15 correct?

16 **A. Yeah, it could. Again, I didn't consider**
17 **that.**

18 Q. So you're saying you've never heard of the
19 term "osteophyte" as it's used in the medical
20 profession?

21 MR. PIETRANTONIO: Mischaracterizes his
22 testimony.

1 THE WITNESS: Again, I've heard it, but I
2 didn't consider it when I combined these. I looked
3 at the term as the combination of the words. I
4 didn't look at them independently.

5 BY MR. SHERWIN:

6 Q. And as you sit here today, you would agree
7 that the term "osteophyte" as it's used on its own
8 means a bony excrescence or an osseous outgrowth,
9 correct?

10 A. I guess it could. I -- you know, I don't
11 have a definition in front of me.

12 Q. Do you have any reason to dispute that
13 definition?

14 A. I think it depends on the context, the
15 location. Again, I didn't look at the word
16 independently on its own.

17 (Drewry deposition Exhibit Number 7 was
18 marked for identification and attached to the
19 transcript.)

20 BY MR. SHERWIN:

21 Q. I'm handing you what's now been marked as
22 Drewry Exhibit 7. This is excerpts from Dorland's

1 Illustrated Medical Dictionary. Will you turn to, I
2 believe, the last page.

3 A. Okay. What year? What year is this?

4 Q. Sure. We can take a look at that. Why
5 don't you take a look at the second page of this
6 document.

7 A. Okay.

8 Q. About three-quarters of the way down,
9 there's a 2003 copyright.

10 A. Okay.

11 Q. Do you see that?

12 A. Yes.

13 Q. And if you could take a look at the term
14 in there "osteophyte." In Dorland's, that's on page
15 1336.

16 A. Okay.

17 Q. And you agree that Dorland's defines an
18 osteophyte as a bony excrescence or osseous
19 outgrowth, correct?

20 A. Yes, sir.

21 Q. Do you have any reason to believe that
22 Dorland's is an unreliable source --

1 **A. I've never heard of --**

2 Q. -- for medical terms?

3 **A. I've never heard of it, but it's a**
4 **definition.**

5 Q. And you agree with that definition?

6 **A. Again, it could be. An osseous -- it**
7 **could be.**

8 Q. And you can't point to anything specific
9 about this definition that you disagree with, is that
10 correct?

11 **A. No, sir.**

12 Q. Can you point to anything in this
13 definition in Dorland's of "osteophyte" that you
14 disagree with?

15 **A. I mean, it's a definition of an**
16 **osteophyte. I -- I don't have anything.**

17 Q. Okay. You agree that osteophytes are
18 pathologic features of a bone, correct?

19 **A. Yes.**

20 Q. You agree that they can form due to stress
21 on the bone or as a result of degenerative
22 conditions, like osteoarthritis, correct?

1 **A. Again, I really, I didn't, I didn't study**
2 **this or look at this or prepare it, so I'm not sure.**

3 Q. So you agree that they're pathologic, but
4 you're not sure what conditions would lead to the
5 growth of an osteophyte, is that correct?

6 **A. That's correct.**

7 Q. And you agree that an osteophyte can form
8 on the corner of a vertebrae, which is the junction
9 of the side and top surfaces of the vertebrae,
10 correct?

11 **A. Again, based on that definition, I -- I**
12 **guess there could.**

13 Q. So yes, you agree that that's where they
14 can develop?

15 **A. I don't think it's limited to there. But**
16 **yes, I think there could have osteophytes there.**

17 Q. If you could turn back to Exhibit 6,
18 please.

19 **A. Is that the --**

20 Q. That's the --

21 **A. Okay.**

22 Q. -- pictures.

1 **A. Okay.**

2 **Q. Is it your opinion that any osteophytes**
3 **have formed on the vertebral bodies depicted in**
4 **Exhibit 6?**

5 **A. Again, I don't, I don't have enough**
6 **information to determine that.**

7 **Q. What information do you need?**

8 **A. Again, I would rely on -- I'd rely on**
9 **imaging studies, other bone data that would be**
10 **accomplished by that.**

11 **Q. So, for example, you need to take a look**
12 **at a CT scan to determine whether an osteophyte has**
13 **formed?**

14 **A. No. I think you can do with it X-ray. I**
15 **think you can do it with multiple imaging**
16 **technologies.**

17 **Q. What would distinguish the osteophyte from**
18 **other aspects of the vertebral body?**

19 **A. Another thing that it may be time. I**
20 **mean, it may be bone that's always been there. They**
21 **talk about an outgrowth or something like that. So**
22 **you may want to have a historical imaging study that**

1 **shows that this bone has grown or if it was already**
2 **there. It may just be a bony anomaly. It may not be**
3 **an outgrowth.**

4 Q. You -- sorry.

5 (Mr. Sherwin confers with Mr. Griffith.)

6 BY MR. SHERWIN:

7 Q. Could you please turn to Exhibit 1.

8 A. **Which is --**

9 Q. Sorry, that's your declaration --

10 A. **Okay.**

11 Q. -- Exhibit 1.

12 A. **All right.**

13 Q. Paragraph 36.

14 A. **Yes, sir.**

15 Q. You have a certainly different depiction
16 of a vertebral body, do you see that?

17 A. **Yes.**

18 Q. Does this depict any osteophytes?

19 A. **Again, I don't know.**

20 Q. The same issue, you would need other
21 imaging techniques --

22 A. **I would need more information. Again,**

1 we're -- as I was asked to look at, we looked at "lip
2 osteophyte" as defined as the strongest part of the
3 bone. I can't determine the strongest part of a bone
4 from an image on paper.

5 Q. So I will make a distinction between the
6 claim term "lip osteophyte" and the word "osteophyte"
7 as it's being used on its own.

8 Are you saying that the word osteophyte as
9 used on its own also means the strongest part of the
10 bone?

11 A. No. I didn't say that.

12 Q. So you agree that the word "osteophyte" as
13 used on its own has a different meaning than "lip
14 osteophyte" as it's used in the claims of the '234
15 and '537 patents, correct?

16 A. Repeat that, please.

17 Q. You agree that the meaning of the term
18 "osteophyte" is different than the meaning of the
19 term "lip osteophyte" as it's used in the claims of
20 the '234 and '537 patents, correct?

21 A. Again, it could be.

22 MR. PIETRANTONIO: I know you're in the

1 middle of a claim term, but we've been going for
2 about an hour and ten minutes or so. Is there a
3 point that it makes sense to have a break for lunch?

4 MR. SHERWIN: Yeah, we can stop any time.
5 So if you want to do it now, that's fine. If you
6 want to go longer, it's fine. It's indifferent to
7 me.

8 THE WITNESS: Can we get a break?

9 MR. PIETRANTONIO: Why don't we take a
10 break, then.

11 THE VIDEOGRAPHER: The time is now 12:43,
12 going off the record.

13 (A break was taken.)

14 THE VIDEOGRAPHER: We're back on the
15 record, the time is 1:28.

16 BY MR. SHERWIN:

17 Q. Okay. Mr. Drewry, before break, we were
18 talking about osteophytes, do you remember that?

19 A. Yes, sir.

20 Q. And you agreed that the '234 and '537
21 patents do not use the word "osteophyte" as a
22 stand-alone word, correct?

1 **A. Yes, sir.**

2 **Q. And you agree that the patents do not use**
3 **the term "osteophyte" as it's typically used in the**
4 **medical profession, like in Dorland's Dictionary,**
5 **correct?**

6 **A. Well, again, the term that we're talking**
7 **about in '234 and the other patent is "lip**
8 **osteophyte."**

9 **Q. So you would agree with me that when the**
10 **'234 and '537 patents use the word "osteophyte," that**
11 **it would be incorrect to determine that the meaning**
12 **of that word is as it is in Dorland's Medical**
13 **Dictionary, correct?**

14 **A. Again, back to my earlier discussion, I**
15 **think it depends. Depends on the anatomy, depends on**
16 **the weight, the bone, the density, the lip**
17 **osteophyte. I mean, I think --**

18 **Q. So you agree, then, that when the '234 and**
19 **'537 patents use the term "osteophyte," at times, it**
20 **can be consistent with the meaning as described in**
21 **Dorland's Medical Dictionary, correct?**

22 **A. No, I didn't say that. I'm just saying**

1 that the lip osteophyte could be an outgrowth of bone
2 or, again, just the -- the geometrical features of it
3 could be similar to an osteophyte, but it may not be
4 produced the same way morphologically.

5 Q. You agree that the '234 and '537 patents
6 do not include any definition for the term
7 "osteophyte" on its own, correct?

8 A. Well, again, as I studied the patent and I
9 went back and looked at it in particular the way that
10 Dr. Bray described it, you know, he consistently
11 referred to it as the strongest part of the bone and
12 structurally the strongest portion of the bone, and I
13 relied on the patent and his discussion of the
14 matter.

15 Q. So I'd like to distinguish for a second
16 the term "lip osteophyte" as it's used in the patents
17 from just the word "osteophyte" as a stand-alone
18 word. And so my question is just in reference to the
19 word "osteophyte" as a stand-alone word.

20 And so you agree that the '234 and '537
21 patents did not define the word "osteophyte" as a
22 stand-alone word, correct?

1 **A. I don't recall if it defined it or not. I**
2 **just looked -- I was looking at "lip osteophyte."**

3 **Q. You're not aware of any portion of the**
4 **'234 and '537 patents that define the word**
5 **"osteophyte" as a stand-alone word, right?**

6 **A. I am not, no.**

7 **Q. You agree that the "lip above vertebrae"**
8 **describes a location on the vertebral body, correct?**

9 **A. Again, not a -- not particular location**
10 **but a kind of a more of a region. I mean, I don't**
11 **think it's a particular point.**

12 **Q. It's more of a surface, is that the**
13 **distinction you're drawing?**

14 **A. Or a 3-D, a three-dimensional -- I don't**
15 **know what the word -- a three-dimensional structure,**
16 **I will. Anatomic feature.**

17 **Q. Is it your opinion that the '234 and '537**
18 **patents use the word "lip" as it's typically**
19 **understood in the medical profession?**

20 **A. Again, I didn't consider the word "lip" on**
21 **its own. I considered it as the combination of "lip**
22 **osteophyte," so --**

1 Q. So it's your opinion that the patents do
2 not use the word vertebral lip as a stand-alone word,
3 is that correct?

4 MR. PIETRANTONIO: Objection, lacks
5 foundation.

6 THE WITNESS: I just don't know. I --
7 again, I think as I considered my definition --
8 again, as it relates to the patent, I don't know that
9 it was, the word was used there. Or, again, I didn't
10 con -- I didn't consider it independent when I looked
11 at it as in the patent.

12 BY MR. SHERWIN:

13 Q. You agree that lipping, as it refers to a
14 vertebral body, is the development of a bony
15 overgrowth, correct?

16 A. **I have heard that term.**

17 Q. And you agree that that's an accurate
18 definition of it?

19 A. **I don't know that it's a definition, but I**
20 **have heard that term in reference to that.**

21 Q. And you agree that the term "lipping" is
22 the development of a bony overgrowth, correct?

1 **A. Again, I don't -- I don't know the**
2 **magnitude or -- or how much of the -- I don't know**
3 **how you'd quantify that, but I have heard that term.**

4 Q. And so the definition I provided of the
5 development of a bony overgrowth is consistent with
6 the way you've heard that term being used in the
7 medical profession, correct?

8 **A. In some instances, yes.**

9 Q. If you could turn to Exhibit 7, please.
10 That's Dorland's.

11 **A. Okay.**

12 Q. And the Dorland's page number 1058.

13 **A. Okay.**

14 Q. The top right, you'll see a description, a
15 depiction of lipping.

16 And you agree this is consistent with the
17 concept of lipping as being a development of a bony
18 overgrowth that you've heard in the medical
19 profession, correct?

20 **A. Yeah, I think that would be an example.**

21 Q. With respect to the claim term "lip
22 osteophyte" as those terms are sued together, the

1 term we're disputing today --

2 **A. Yes.**

3 Q. You agree that a person of ordinary skill
4 in the art would not be able to look at the claims
5 alone to determine the scope and meaning of that
6 term, correct?

7 MR. PIETRANTONIO: Objection, lacks
8 foundation.

9 THE WITNESS: Again, I don't know that I'd
10 rely on the claim language on its own. And when I
11 did my own definition, I went back to the
12 specification and, more importantly, the discussion
13 from Dr. Bray on his clinical experience and used
14 that to -- to form my definition of lip osteophyte.

15 BY MR. SHERWIN:

16 Q. And so you agree that a person of ordinary
17 skill in the art can only interpret the term "lip
18 osteophyte" by reviewing the specification, correct?

19 **A. I don't know that that -- I don't know
20 that that's true. I just, I know what I did.**

21 Q. Well, you agree the term "lip osteophyte"
22 has no plain and ordinary meaning, correct?

1 **A. Again, I don't -- that's fair, yes. It**
2 **doesn't.**

3 Q. So a person having ordinary skill in the
4 art would review those claims and see the word "lip
5 osteophyte," because it has no plain and ordinary
6 meaning, they would not be able to look at just the
7 claims to determine the scope of that term, correct?

8 **A. I don't know. Again, I'm not sure. I**
9 **didn't -- I didn't look at just the claims when I**
10 **formed my opinion or my definition, so I --**

11 Q. Well, you'd agree that if they wouldn't
12 have any understanding of what the term means, they
13 wouldn't be able to look at the claim to determine
14 the scope of it, correct?

15 **A. Again, I don't know. I didn't look at the**
16 **claims by themselves with the term "lip osteophyte."**

17 Q. It's your opinion it will be improper to
18 take the plain and ordinary meaning of the term "lip"
19 and combine with it the plain and ordinary meaning of
20 the word "osteophyte" in order to properly understand
21 the meaning of the term "lip osteophyte" as it's used
22 in the patents, correct?

1 **A. I don't know, I didn't do that. I looked**
2 **at it as "lip osteophyte," I looked where it was used**
3 **in the patent and I formed my definition on the way**
4 **that they described it in the -- in the patent.**

5 Q. Is it your opinion that it will be proper
6 to use the plain and ordinary meaning of the words
7 "lip" and "osteophyte" to understand the meaning of
8 the claim term "lip osteophyte"?

9 **A. I don't think that those -- I think no.**

10 Q. You agree that it's improper to import a
11 limitation from the specification into the claims,
12 correct?

13 **A. I -- again, I'm not an attorney. I'll**
14 **have to rely on my -- my legal. So can you point to**
15 **that?**

16 Q. Yeah, I'll point it up right now. If you
17 go to paragraph 12 that's Exhibit 1.

18 **A. Okay.**

19 Q. Take a look at that there. In your
20 declaration, you state it is improper to import
21 limitations into the claims from the embodiment
22 described in the specification that are not required

1 by the claims, do you see that?

2 **A. Yes.**

3 Q. So you agree that it's improper to import
4 limitations into the claims, correct?

5 **A. From the embodiments which are described**
6 **in the specification that are not required by the**
7 **claims.**

8 Q. It's your opinion that the term "lip
9 osteophyte" has to prove the limitation structurally
10 the strongest part of the bone, correct?

11 **A. Again, I'm not sure that that's a**
12 **limitation. I think that's the way it was described**
13 **and defined in the patent.**

14 Q. And you agree that the words "structurally
15 strongest part of the bone" are not used in the claim
16 terms in reference to "lip osteophyte," correct?

17 **A. I don't recall if it was or not.**

18 Q. As you sit here today, you're not able to
19 identify any claim in the '234 or '537 patents that
20 use the language "structurally strongest part of the
21 bone" in reference to "lip osteophyte," correct?

22 **A. Again, I don't -- I don't recall. I'd be**

1 **happy to look.**

2 Q. You can take a look. I can represent to
3 you those words don't appear, but if you'd like to
4 look and verify, you can.

5 A. **Okay. And your question? Can you please**
6 **repeat your question?**

7 Q. You agree that the language structurally
8 strongest part of the bone is not used in any of the
9 claims of the '234 and '537 patents as it relates to
10 the term "lip osteophyte," correct?

11 A. **Again, I -- I -- I did not review all the**
12 **claims to look for that. I got my definition and the**
13 **meaning for the terminology from the specification**
14 **earlier on in the patent.**

15 Q. So you agree that the language
16 "structurally strongest part of the bone" only
17 appears in the specification, not the claims,
18 correct?

19 A. **Again, I'm not sure. I didn't review them**
20 **all in light of that.**

21 Q. And you can't identify any claims that use
22 that language right now, correct?

1 **A. I hadn't looked through all of them.**

2 Q. And the ones you looked through right now
3 didn't include that language, correct?

4 **A. I didn't look and I didn't identify any.**

5 Q. It's your opinion that the "lip," as that
6 term is used in the phrase "lip osteophyte," is the
7 anterior portion of the outer cortical rim, correct?

8 **A. It can be, yes.**

9 Q. Are you saying it's other locations, as
10 well?

11 **A. I mean, getting back to my**
12 **three-dimensional description, I think it's not a**
13 **point, it's a -- it has other dimensions.**

14 **(Drewry deposition Exhibit Number 8 was**
15 **marked for identification and attached to the**
16 **transcript.)**

17 BY MR. SHERWIN:

18 Q. I'm handing you what has been marked as
19 Exhibit 8. And if you need to write something on the
20 exhibit -- I know you did it on the prior Exhibit --

21 **A. Uh-huh.**

22 Q. -- that has some pictures. Feel free to

1 use the black pen, if that's easier than the marker I
2 handed you.

3 **A. Okay.**

4 Q. But I thought it would be useful to use a
5 different color --

6 **A. Okay.**

7 Q. -- so we can distinguish the different
8 colors.

9 So on Exhibit 8, which I've just handed
10 you, could you please mark where the lip osteophyte
11 occurs on these two images of a vertebral body. Or
12 if there are no lip osteophytes, let me know that.

13 **A. Again, just for clarity, I'm going to**
14 **re-write my same caveats because --**

15 Q. If you want to just write "same caveats,"
16 that'll be sufficient on the record. If you feel you
17 want to write all the words, you can. Just trying to
18 save you some time.

19 **A. And that's Exhibit 6?**

20 Q. The prior picture was Exhibit 6, correct.

21 **A. And, again, as we talk about strongest**
22 **bone and that sort of thing, it's -- it's based on**

1 data that I don't necessarily have. So it kind of
2 falls into the same discussion that we had
3 previously.

4 Q. So did you depict anywhere on those images
5 where the lip osteophyte appears? It looks like no.

6 A. Well, again, I think it's gonna be similar
7 to -- to what we've shown before. You know, again, I
8 don't know where it stops or where it starts. You
9 know, it can be in these regions [indicates on
10 Exhibit 8]. And again, 300 -- you know, there's a
11 three-dimensional component to that.

12 Q. Could you also depict for me, please,
13 where the lip osteophyte occurs on the lower image
14 that's labeled C in Exhibit 8, please.

15 A. Again, it can start here and I think
16 there's a three-dimensional component, as well,
17 again, based on a lot of factors that we mentioned
18 earlier on, the strength of the bone.

19 Q. So those same factors that you keep
20 mentioning, you're saying without knowing that
21 information, you can't determine where the lip
22 osteophyte is, correct?

1 **A. Or the extent of it, yes.**

2 Q. Like you said, you can't tell where it
3 starts and where it stops, correct?

4 **A. Correct.**

5 Q. So in paragraph 37 of your declaration --

6 **A. Okay.**

7 Q. -- you refer to the lip in reference to
8 the term "lip osteophyte" as the anterior portion of
9 the outer cortical ring. Is that consistent with
10 what you've just depicted in Exhibit 8 in orange
11 marker?

12 **A. Again, I think there's a range of**
13 **"anterior" and I think, you know, I worded it that**
14 **way for this particular application because that's**
15 **where the base plate stabilization systems are placed**
16 **on the spine, so that's what I referred to there.**
17 **But, again, the length, the depth, all those, all**
18 **those quantifiable features of it vary based on**
19 **the -- the caveats given.**

20 Q. So just to make sure I understand your
21 testimony, yes, you agree that the depiction of a lip
22 osteophyte which you've drawn on Exhibit 8 is

1 consistent with your description of the lip as being
2 the anterior portion of the outer cortical ring which
3 is in paragraph 37 of your declaration, correct?

4 **A. Again, that anterior portion is part of**
5 **the lip, yes.**

6 Q. And you also agree that the lip osteophyte
7 as that term is used in the '234 and '537 patents, is
8 the same as the corner of the bone as that term is
9 used in the '234 and '537 patents, correct?

10 **A. I wouldn't necessarily say the corner. I**
11 **think it's -- again, it's a range. It depends on how**
12 **thick the cortical bone is, the anatomy. All the --**
13 **the same things before determines its location, its**
14 **thickness.**

15 Q. Is that all?

16 **A. Yeah, that's all I have.**

17 Q. So if you could turn to the '234 patent
18 that's Exhibit 4. If you could look at column six,
19 50 to 52, please.

20 **A. 50? Okay.**

21 Q. It states, "The secondary member 22
22 engages a corner or the lip osteophyte 74 of a second

1 vertebral body 16."

2 Do you see that?

3 A. Yes.

4 Q. So that is consistent with your
5 understanding that the corner of the bone as that
6 term is used in the '234 and '537 is consistent with
7 the meaning of the term "lip osteophyte" as it's also
8 used in these patents, correct?

9 MR. PIETRANTONIO: Objection, lacks
10 foundation.

11 THE WITNESS: Yeah. Can you please repeat
12 that question?

13 BY MR. SHERWIN:

14 Q. You agree that the "corner of the bone" as
15 that term is used in the patents is consistent with
16 the meaning of the term "lip osteophyte" as that term
17 is also used in the patents, correct?

18 MR. PIETRANTONIO: Objection, lacks
19 foundation.

20 THE WITNESS: Again, as stated in the
21 patent, you know, it engages a corner or the lip
22 osteophyte of the second vertebral body.

1 BY MR. SHERWIN:

2 Q. So yes, you agree they have the same
3 meaning?

4 A. I think that's the general area where the
5 strongest bone is.

6 Q. So is that a "yes" or "no"?

7 A. I don't know if they have the same
8 meaning, but they could have, they could be both the
9 strong -- area strongest bone, depending on the
10 patient, and depending on everything else I said
11 before.

12 Q. So you're saying in certain circumstances,
13 those two terms have the same meaning, correct?

14 A. No, I wouldn't say they have the same
15 meaning, but I think they're both the area of the
16 strongest bone. And, again, that area is based on
17 the thickness, the depth, you know, all the other
18 caveats that I had before.

19 Q. Let me -- let me ask the question
20 differently because I -- well, perhaps we do, perhaps
21 we don't, but let me try this a different way.

22 You agree that the lip osteophyte as that

1 term is used in the patents refers to the strongest
2 part of the bone, correct?

3 A. Yes.

4 Q. And you agree that the corner of the bone
5 is the junction between the top surface and side
6 surface of the bones as that term is used in the
7 patents, correct?

8 A. Yes.

9 Q. And you agree that a lip osteophyte, when
10 it's the strongest portion of the bone, is also
11 located at the junction between the top and side
12 surfaces, correct?

13 MR. PIETRANTONIO: Objection, lacks
14 foundation.

15 THE WITNESS: Again, I don't know. That
16 may -- it may change and it may vary based on the
17 thickness of the cortical bone. So it's not at a
18 point in space, it's based on the thickness on the
19 cortical bone and, again, based on all those factors
20 that I've given before.

21 BY MR. SHERWIN:

22 Q. You agree that the cortical bone is the

1 strongest part of the bone, correct?

2 **A. Compared to cancellous bone?**

3 Q. Compared to any other part of the bone.

4 **A. I mean, cortical bone is the strongest**
5 **bone, yes.**

6 Q. And you agree that some vertebral
7 osteophytes can be formed of cortical bone, correct?

8 **A. Yes.**

9 Q. Previously we were talking about the area
10 of the bone that's the corner of the bone as that
11 term is used in the '234 and '537 patents, correct?

12 **A. Correct.**

13 Q. And you said that that corner had a range
14 in terms of where it started and where it stopped,
15 correct?

16 **A. Correct.**

17 Q. If you could go back to Exhibit 8, please.

18 **A. Okay.**

19 Q. That's where you depicted the region of
20 the lip osteophyte.

21 **A. I'm sorry, where are you?**

22 Q. So I'm looking at Exhibit 8, please.

1 **A. 8?**

2 Q. That's the pictures. So I think it is
3 underneath --

4 **A. Okay.**

5 Q. -- the one you're looking at now.

6 **A. Oh, I thought you said one.**

7 Q. Yeah. No, sorry about that.

8 **A. Okay.**

9 Q. So let's focus on Exhibit 8.

10 **A. All right.**

11 Q. Exhibit 8, as you recall, that's where you
12 depicted regions where lip osteophyte may occur,
13 according to your understanding of that term,
14 correct?

15 **A. Uh-huh.**

16 Q. Is that the same region where the corner
17 of the bone is as that term is used in the '234 and
18 '537 patents?

19 **A. Again, it could be. I mean, it just**
20 **depends on the -- the thickness of the bone and where**
21 **it's located. It could move around.**

22 Q. Does have it the same caveats that you

1 gave for the osteophyte, that it varies based upon
2 the bone and that you can't determine where it stops
3 and starts?

4 **A. Yes.**

5 Q. And you also agree it comes with the same
6 caveats that you listed on there about you would need
7 more information about imaging and patient-specific
8 factors in order to determine the corner of the bone,
9 right?

10 **A. I would personally need it to feel**
11 **comfortable doing that today, yes.**

12 Q. Is it possible for the corner of the bone
13 as that term is used in the '234 and '537 patents to
14 include a region that does not include the junction
15 of the top and side surfaces of the bone?

16 **A. I'm sorry, repeat that again. I'm trying**
17 **to think it through.**

18 Q. You agree that the corner of the bone
19 always includes the junction between the top and side
20 surfaces, correct?

21 MR. PIETRANTONIO: Objection, lacks
22 foundation.

1 THE WITNESS: Yeah, I don't say that would
2 always include the junction. No.

3 BY MR. SHERWIN:

4 Q. So there are instances where the corner of
5 the bone could only include the side surface and not
6 including the top surface, correct?

7 A. No. I just said it's not at the junction.

8 Q. Do you agree that the corner of the bone
9 could include a region that is only on the top
10 surface and not the side surface of the bone?

11 A. No. I didn't say that, as well.

12 Q. Are you saying that's not possible?

13 A. Again, I think in order to -- based on the
14 strongest part of the bone and the way that lies, it
15 could be in that region somewhere, not necessarily at
16 the junction, not only a horizontal component, not a
17 vertical component, somewhere in that area. And,
18 again, to determine that I would need additional
19 information.

20 Q. And one of the pieces of information you
21 need is where the strongest part of the bone is,
22 correct?

1 **A.** **Again, that's -- that's how I defined it**
2 **and that's -- that's what I'd be looking for to do**
3 **that.**

4 **Q.** And you agree the reason you don't know
5 what the strongest part of the bone is in Figure 6
6 and 8 is because it's going to vary from patient to
7 patient based upon the factors you described earlier,
8 correct?

9 **A.** **Yeah. I mean, those are the components**
10 **that I gave as caveats to where the strongest bone's**
11 **located, and that's what I would require and need to**
12 **be able to provide you the location that you're**
13 **asking for.**

14 **Q.** If you could turn to Exhibit 4, please.
15 That's the '234 patent. And then if you could turn
16 to Figure 3, please. And if you orient the page in
17 landscape, such that Figure 3 is at the bottom of the
18 page --

19 **A.** **You mean this?**

20 **Q.** Yeah, like that.

21 **A.** **Okay.**

22 **Q.** I think that will help us stay on line.

1 On the right-hand side of this image, do
2 you see screw 25?

3 **A. Yes.**

4 Q. You agree that that screw goes through the
5 corner of the bone 16, correct?

6 **A. I mean, it's showing a cross-sectional**
7 **view, so -- I mean, it could go through the corner,**
8 **if, again, that's the location of the strongest bone**
9 **as depicted by that -- that schematic.**

10 Q. So it's your opinion that that screw would
11 not go through the corner of the bone lip osteophyte
12 if that region is not the strongest part of the bone,
13 correct?

14 **A. No, I'm not saying that it wouldn't. I'm**
15 **saying that's where they're trying to place these**
16 **screws, is in the strongest bone.**

17 Q. Right. So my question is does screw 25 go
18 through the corner of bone 16, yes or no?

19 **A. I mean, it's -- it's shown overlaid on**
20 **that geometrical corner, again, of the schematic in**
21 **the drawing. But I don't, I don't know what the**
22 **quality or -- of the bone is or that sort of thing,**

1 **so -- I mean, from the schematic, it's at the corner**
2 **of that square.**

3 Q. So is that a yes, it goes through the
4 corner of the bone?

5 A. **Yes, it goes through that corner of that**
6 **square.**

7 Q. And that's because it goes through both
8 the top surface and side surface of bone 16, correct?

9 A. **Again, I don't -- you know, it's a**
10 **two-dimensional drawing of a three-dimensional --**
11 **because of the -- it looks like it goes through those**
12 **two components.**

13 Q. So it's your opinion that if the corner of
14 the bone that screw 25 penetrates through is not the
15 strongest part of the bone, then that screw is not
16 going through the corner of the bone with the lip
17 osteophyte, correct?

18 A. **No, I didn't say that. Again, it's not a**
19 **point in space. It's a three-dimensional image, it**
20 **has a depth, a thickness and a width, and I think**
21 **it's going in the general area. But, again, I --**
22 **based on this schematic, I can't tell you if that**

1 **point is the strongest structural bone.**

2 Q. And because you don't know what the
3 strongest part of the bone is, you can't tell if the
4 screw is going through the corner of the bone lip
5 osteophyte, correct?

6 A. **Again, if I had the information and the**
7 **data to determine where that was, I could tell you if**
8 **that screw was going through it.**

9 Q. Also on Figure 3 on the left, do you see
10 bone 14 and screw 24?

11 A. **Yes.**

12 Q. And you agree that screw 24 does not go
13 through the corner of bone 14, correct?

14 MR. PIETRANTONIO: Objection, lacks
15 foundation.

16 THE WITNESS: Again, from the -- the box
17 schematic on there, it doesn't go through that point,
18 but it could be that the -- the area of strongest
19 bone and based on the -- the strength of the bone and
20 the other parameters that I discussed, it could shift
21 in a different orientation.

22 BY MR. SHERWIN:

1 Q. You agree that screw 24 does not go
2 through the top surface of the bone, correct?

3 A. **Again, in this two-dimensional view, it**
4 **appears that it's going on the side.**

5 Q. So you agree it does not go through the
6 top surface of the bone, correct?

7 A. **Correct.**

8 Q. And you would agree that screw 24 is not
9 going through the lip osteophyte of bone 14, correct?

10 A. **Again --**

11 MR. PIETRANTONIO: Objection, lacks
12 foundation.

13 THE WITNESS: Again, I don't know because
14 I don't know the quantity -- I mean the
15 characteristics or the -- the strength of that bone
16 in that area. That could be the strongest bone at
17 that location.

18 BY MR. SHERWIN:

19 Q. SO as you're using the term "corner,"
20 you're not using it in its plain and ordinary
21 meaning, correct?

22 A. **No. I think that I am.**

1 Q. You agree that the corner of the bone has
2 to be the strongest part of the bone, correct?

3 A. Again, I -- I think "corner," it's not a
4 point, it's a range, and, again, that's driven by
5 where the bone is the strongest. It can vary in, you
6 know, thickness, depth, width, location against one
7 side or the other. It's where the strongest bone is.

8 Q. So your opinion is that the corner of the
9 bone, as it's used in these patents, is the region of
10 bone at the junction between the top and side surface
11 that is also the strongest part of the bone, correct?

12 MR. PIETRANTONIO: Objection, lacks
13 foundation and vague.

14 THE WITNESS: So can you clarify
15 "junction" between the two surfaces?

16 MR. SHERWIN: The intersection, the point
17 where those two surfaces meet.

18 THE WITNESS: Again, I think the area of
19 strongest bone falls into a range that I don't have
20 the information to determine where it is.

21 MR. SHERWIN: So my question was a little
22 different, so let me try it again.

1 BY MR. SHERWIN:

2 Q. You agree that the corner of the bone as
3 it's used in the patents has to include the junction
4 with the top surface and side surface and it has to
5 be the strongest part of the bone, correct?

6 MR. PIETRANTONIO: Objection, lacks
7 foundation.

8 THE WITNESS: Again, I don't know that it
9 has to include the junction.

10 BY MR. SHERWIN:

11 Q. Does the word "corner" as it's used in the
12 '234 and '537 patents have a plain and ordinary
13 meaning?

14 A. **I didn't look at that definition**
15 **specifically.**

16 Q. As you sit here today, do you know if the
17 word "corner" has a plain and ordinary meaning as
18 it's used in these patents?

19 A. **I didn't really look at it. I was focused**
20 **on lip osteophyte.**

21 Q. So you don't know, correct?

22 A. **I didn't consider it, no.**

1 Q. It's your opinion that bony outgrowths may
2 not be the strongest part of the bone, correct?

3 **A. That's correct.**

4 Q. Do you also agree that bony outgrowths
5 sometimes are the strongest part of the bone?

6 **A. I guess there could be instances where**
7 **they are.**

8 Q. And this goes back to your discussion
9 before about how there's a lot of factors about what
10 goes into the strongest part of the bone, correct?

11 **A. Correct.**

12 Q. An so there could be instances where a
13 bony outgrowth is the strongest part of the bone,
14 correct?

15 **A. I mean, there could be.**

16 Q. You agree that when the patents refer to
17 the strongest part of the bone, they're not referring
18 to bone that's stronger than cortical bone, correct?

19 MR. PIETRANTONIO: Objection, lacks
20 foundation.

21 THE WITNESS: I hadn't really considered
22 in that term, it was just the strongest bone that was

1 available.

2 BY MR. SHERWIN:

3 Q. You're not aware of any other bone being
4 described in the '234 and '537 patents as being
5 stronger than cortical bone, right?

6 A. Again, I don't know. They were just, you
7 know, looking for the strongest structural bone in
8 the vertebral body.

9 Q. Paragraph 30 of your declaration that's
10 Exhibit 1, do you want to take a look at it. You
11 state that it's possible for ossification to extend
12 into the bone.

13 A. I'm sorry, I -- where --

14 Q. Sure. Go to paragraph 38.

15 A. Oh, 38.

16 Q. Yeah.

17 I think I have the wrong cite.

18 So I'm still looking at paragraph 38 that
19 extends from page 11 to page 12, and it's on page 12
20 where it talks about "ossification of the bone can
21 extend"[...]

22 A. Okay.

1 Q. You agree that the '234 and '537 patent
2 claims do not refer to ossification that extends into
3 the bone as it relates to a lip osteophyte, correct?

4 A. **I'm sorry, extends into the bone?**

5 Q. Correct.

6 A. **Again, I'm struggling to describe it.**
7 **It's located where the strongest bone is.**

8 Q. Mr. Drewry, you also gave a description in
9 your declaration about the meaning of the side
10 surface, correct?

11 A. **Yes, sir.**

12 Q. And you agree that the word "side" as it's
13 used in that term is a modifier -- modifier that
14 describes its location on a bone, correct?

15 A. **I don't know that I'd call it a modifier.**
16 **I think it's the surgeons looking down into the**
17 **patient as his frame of reference and perspective as**
18 **he was doing this procedure, he would have a side**
19 **surface of the vertebral body that faces the adjacent**
20 **side surface of the, again, adjacent vertebral body.**

21 Q. So is it your testimony that the word
22 "side" does not modify the word "surface" as it's

1 used in this term?

2 **A. I'm not sure I understand what you mean by**
3 **"modify."**

4 Q. Do you agree that the word "side" defines
5 which surface is being referred to in this term?

6 **A. Again, in a way that that surface is**
7 **defined as generally facing the adjacent vertebral**
8 **body's side surface, as well.**

9 Q. You agree that there's multiple surfaces
10 on the vertebral body, correct?

11 **A. There are, yes.**

12 Q. And you agree that it will be proper to
13 consider the plain and ordinary meaning of the word
14 "side" in order to determine which surface is the
15 side surface of the bone, correct?

16 **A. No. I would rely on the perspective and**
17 **frame of reference given in the patent to determine**
18 **what was meant by that term.**

19 Q. Is it your opinion that it would be
20 improper to look at a dictionary definition of the
21 word "side" in order to determine what the word "side
22 surface" means in these patents?

1 **A. I'm sorry, repeat the question.**

2 Q. Is it your opinion that it would be
3 improper to look at a dictionary definition of the
4 word "side" in order to determine what the word "side
5 surface" means?

6 **A. No. I mean, I think going in the patent
7 and looking at the description and definition of the
8 "side surface" would provide them with that
9 information.**

10 Q. So it's your opinion that it would be
11 improper to look at a dictionary definition, correct?

12 MR. PIETRANTONIO: Mischaracterize --
13 objection, mischaracterizes his testimony.

14 THE WITNESS: I don't think it would be
15 improper. I just think you need the proper context,
16 perspective in reference to understand what side
17 surface and orientation they're discussing.

18 BY MR. SHERWIN:

19 Q. You've not offered any definition for the
20 term "bone graft material," correct?

21 **A. I -- again, I don't believe I was asked to
22 opine on a definition.**

1 Q. So if you could take a look at Exhibit 1,
2 that's your declaration, page 15, you have a section
3 on bone graft material, do you see that?

4 A. Yeah.

5 Q. You're not offering any definition for
6 this term in your declaration, correct?

7 A. **I didn't. Again, I was asked to provide**
8 **an opinion on the language involving the term "bone**
9 **graft material" but not a definition.**

10 Q. So you're saying that you don't have any
11 opinion about what that term should be defined as,
12 your only opinion is about whether Defendants'
13 construction is correct or incorrect?

14 A. **Again, I didn't think that it needed a**
15 **definition. I wasn't asked to provide a definition,**
16 **I was just asked to opine on the position that the**
17 **Defendants had taken with regard to bone graft**
18 **material.**

19 Q. You agree that at a minimum, bone graft
20 material can include particulates, powders or paste,
21 correct?

22 A. **And, again, I think this, as I looked at**

1 it and thought about it as bone graft material as --
2 I look at particulate, powder and paste as more of
3 not necessarily materials per se as -- I don't know,
4 I'm drawing a blank on the word, more types or
5 formulations or forms of bone graft material as
6 opposed to the bone graft -- as opposed to bone graft
7 materials.

8 Q. So you agree that bone graft material can
9 include particulates, powder and paste, but your
10 opinion is that it could also include other things,
11 is that correct?

12 A. That's correct. And, again, I think these
13 are forms.

14 Q. And you agree that bone graft material is
15 added during surgery, correct?

16 A. It could be added, yes.

17 Q. And you agree it's not added before the
18 surgeon receives the device or after the surgery is
19 complete, correct?

20 A. That's correct.

21 Q. And you agree that bone graft material
22 doesn't include, for example, like the metal base

1 plate, correct?

2 **A. That's correct.**

3 Q. And you agree it doesn't include things
4 like PEEK and tie PEEK spacers, correct?

5 **A. That's correct.**

6 Q. So your opinion of the proper construction
7 for this term is that it includes what Defendants
8 have listed, which is particulate, powder or paste
9 added during surgery to fill the gaps between the two
10 bones but it should also include other things,
11 correct?

12 **A. Again, I think what's stated there is**
13 **particulate, powder and paste, you know, are forms of**
14 **bone graft material and it goes beyond that. I mean,**
15 **I think I listed a few as bone, you know, we use**
16 **BMPs, bone morphogenetic protein, other synthetic**
17 **graft extenders. One of the articles we produced was**
18 **on the sea coral and other demineralized bone matrix.**
19 **So I think that's the -- those are the materials.**

20 **And all of those materials -- well, not**
21 **all of them. But, I mean, some of those can be**
22 **provided in the form of a particulate or a powder or**

1 **a paste. But could be also in a lot of other forms,**
2 **as well.**

3 Q. So the answer to the question is yes, it
4 includes what's listed in Defendants' position but
5 also includes other things, correct?

6 MR. PIETRANTONIO: Objection, asked and
7 answered.

8 THE WITNESS: Again, I think bone graft
9 materials are materials like we listed, and
10 particulate, powder and paste are forms of the
11 materials.

12 MR. SHERWIN: Why don't we go off the
13 record now and let's sync up on the Defendants' side
14 and see if we have anything else.

15 THE VIDEOGRAPHER: The time is now 2:26,
16 going off the record.

17 (A break was taken.)

18 THE VIDEOGRAPHER: We're back on the
19 record, the time is 2:32.

20 MR. GRIFFITH: So that's all that we have.

21 MR. PIETRANTONIO: I have a couple of
22 questions for Mr. Drewry.

1 EXAMINATION BY COUNSEL FOR PLAINTIFF

2 BY MR. PIETRANTONIO:

3 Q. Mr. Drewry, do you remember earlier today
4 Mr. Griffith was asking you some questions about
5 Exhibit 3, the '537 patent? And in particular, he
6 was asking about some of the drawing figures in the
7 '537 patent. Do you remember that?

8 A. Yes, sir.

9 Q. Could you turn to Figure 32 for a second
10 in the '537 patent.

11 Now, Mr. Griffith asked you a couple of
12 questions about Figure 32, did he not?

13 A. Yes, sir.

14 Q. And he pointed you to a section of the
15 specification that described that figure, didn't he?

16 A. I believe so.

17 Q. Let me turn your attention to column 29,
18 and in particular lines 8 through 12 or 13.

19 Do you see those lines?

20 A. Yes, sir.

21 Q. Then there's reference to a primary member
22 600, right, in Figure 32?

1 **A. Yes, sir.**

2 Q. And Mr. Griffith asked you a few questions
3 about that, didn't he?

4 **A. Yes, sir.**

5 Q. All right. So now I'd like you to turn to
6 Figure 35 for a second, please.

7 Now, Mr. Griffith asked you a few
8 questions about Figure 35, too, didn't he, today?

9 **A. Yes, sir.**

10 Q. Right. If you could look at column 34 of
11 the patent, please.

12 **A. Okay.**

13 Q. And if you go down to line 50, you see it
14 says, "Figure 35 illustrates that the primary member
15 600 can include a detachable chamber member 696 that
16 encloses the open area or a peripherally surrounded
17 chamber 692 that is configured to receive fusion
18 material." Do you see that?

19 **A. Yes, sir.**

20 Q. Now, that terminology, "primary member
21 600" was used in connection with Figure 32 in that
22 passage that Mr. Griffith asked you about earlier

1 today, isn't that correct?

2 **A. Yes, sir.**

3 Q. And in connection with Figure 35, is
4 primary member 600 a base plate in Figure 35?

5 MR. GRIFFITH: Objection, leading.

6 THE WITNESS: And I think they're both
7 primary members 600. And I think that once they look
8 at after they're assembled and they were treated as
9 the same component after assembly and the fact that
10 they're the same number, I guess they'd be considered
11 the same in 32 and 35.

12 BY MR. PIETRANTONIA:

13 Q. And Figure 35 is, in the specification, it
14 refers to primary member having a detachable chamber,
15 do you see that? In column 34, lines 50 and
16 following?

17 **A. Figure -- can include -- yes.**

18 Q. So is primary member 600 distinct from
19 member 696 in Figure 35?

20 MR. GRIFFITH: Objection, leading.

21 THE WITNESS: Again, it can include it.
22 It can include the detachable member 696.

1 BY MR. PIETRANTONIA:

2 Q. But in the drawing figure, Figure 35,
3 looking at the drawing figure, is 696 distinct from
4 element 600 in drawing Figure 35?

5 MR. GRIFFITH: Objection, leading.

6 THE WITNESS: Again, I think they're two
7 different pieces.

8 BY MR. PIETRANTONIA:

9 Q. And so as two different pieces, is element
10 600, the primary member in Figure 35, a base plate
11 for Figure 35?

12 MR. GRIFFITH: Objection, leading.

13 THE WITNESS: Again, in this, as we
14 discussed earlier, I think they're distinct from each
15 other. In one, we talked about a spacer. This, I
16 think it's part of a spacer along with a base plate.

17 BY MR. PIETRANTONIO:

18 Q. And so what part would be the base plate
19 in Figure 35?

20 A. I think it'd be part of the primary member
21 600.

22 MR. PIETRANTONIO: No further questions.

1 FURTHER EXAMINATION BY COUNSEL
2 FOR DEFENDANT DePUY SYNTHES PRODUCTS, INC.
3 AND DePUY SYNTHES SALES, INC.
4 BY MR. GRIFFITH:

5 Q. Mr. Drewry, did you discuss the substance
6 of these questions with counsel on any breaks today?

7 A. **No, sir, we did not.**

8 MR. GRIFFITH: I have no further
9 questions.

10 THE VIDEOGRAPHER: It is March 5th, 2020,
11 the time is now 2:39 p.m., completing today's
12 deposition. Off the record.

13 (Discussion off the record.)

14 THE REPORTER: Read and sign?

15 MR. PIETRANTONIO: Yes, please.

16 (Thereupon, the deposition was concluded
17 at 2:39 p.m., March 5, 2020.)

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CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

I, Donna A. Peterson, the officer before whom the foregoing proceedings were taken, do hereby certify that the foregoing transcript is a true and correct record of the proceedings; that said proceedings were taken by me stenographically and therefore reduced to typewriting under my supervision; and that I am neither counsel for, related to nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

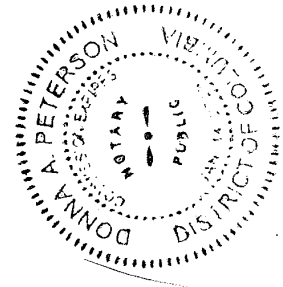
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Signed and sworn to and affirmed, by Donna A. Peterson, I have hereunto set my hand and affixed my notarial seal this 9th day of March, 2020.

My Commission Expires: January 14, 2025

Donna A. Peterson

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