

SMITH & NEPHEW, INC.,
Petitioner,
vs.
BONUTTI SKELETAL INNOVATIONS LLC,
Patent Owner.

TUESDAY, MAY 13, 2014

VIDEOTAPED deposition of JAY B. MABREY, M.D., taken at the offices of 1875 Pennsylvania Ave NW, Washington, D.C. beginning at 9:14 A.M., before Nancy J. Martin, a Registered Merit Reporter, Certified Shorthand Reporter.

Exhibit 2003
Smith & Nephew v.
Bonutti Skeletal
Innovations LLC
Trial: IPR2013-00629

A P P E A R A N C E S :

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ALSO PRESENT:

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I N D E X

TESTIMONY OF: JAY B. MABREY, M.D.

BY MR. KAPPEL.....6

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E X H I B I T S

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NUMBER	DESCRIPTION	MARKED
Exhibit BSI 2001	Geometric and Anametric Total Knee Replacement, Pages 180 and 181, 2 pages	66
Exhibit BSI 2002	Figure 18 (Aand) Sizing of the femoral implant and establishing formal component rotating during the mechanical technique, 1 page	99

DEPOSITION SUPPORT INDEX

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QUESTIONS MARKED:

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2 WASHINGTON, D.C., TUESDAY, MAY 13, 2014; 9:14 A.M.

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THE VIDEOGRAPHER: My name is Kim Johnson representing Veritext. The date today is May 13, 2014. The time is 9:14. This deposition is being held at WilmerHale located at 1875 Pennsylvania Avenue, Washington, D.C. The caption of this case is Smith & Nephew, Incorporated, v. Bonutti Skeletal Innovations, LLC. This case is filed in the U.S. Patent and Trademark Office before the Patent Trial and Appeal Board. Case No. IPR2013-00629. The name of the witness is Jay Mabrey.

14

15

16

At this time, the attorneys present in the room will identify themselves and the parties they represent.

17

18

MR. KAPPEL: Cary Kappel, Davidson Davidson & Kappel, representing Bonutti Skeletal Innovations.

19

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MR. PETROFF: David Petroff, Davidson Davidson & Kappel representing Bonutti Skeletal.

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22

MR. OYLOE: Jake Oyloe, WilmerHale, representing Smith & Nephew and the witness.

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24

MR. SMITH: Michael Smith, WilmerHale, representing Smith & Nephew and the witness.

25

MR. DOWD: Jim Dowd, WilmerHale.

1
2 THE VIDEOGRAPHER: And our court reporter,
3 Nancy Martin, representing Veritext, will swear in the
4 witness and we can proceed.

5 - - -

6 JAY B. MABREY, M.D., after having been
7 first duly sworn, was examined and testified as
8 follows:

9
10 EXAMINATION

11 BY MR. KAPPEL:

12 Q. Good morning, Dr. Mabrey.

13 A. Good morning.

14 Q. My name is Cary Kappel, and I represent the
15 plaintiff -- the defendant in this case. Can you
16 state your full name for the record.

17 A. Jay Donald Mabrey.

18 Q. During the course of this deposition I'll be
19 asking you some questions. All you have to do is
20 answer them truthfully and completely. If I ask you a
21 question that doesn't make sense to you or is
22 confusing, just let me know and I'll try to rephrase
23 it. During the course of the deposition, your
24 attorney may object from time to time. You should let
25 him finish his objection before you answer because we

1 JAY D. MABREY, M.D.

2 have a court reporter here, and she can't type down
3 two people speaking at once. So, also, if I'm asking
4 a question, let me finish before you start so that we
5 don't have a confusing record. Is that okay?

6 A. Okay. Fine.

7 MR. KAPPEL: Let me hand you what has been
8 previously marked as Exhibit S&N 1002.

9 (Previously marked Exhibit 1002.)

10 BY MR. KAPPEL:

11 Q. Do you recognize this document?

12 A. Yes.

13 Q. And it is Exhibit 1002, a copy of the
14 declaration signed by you?

15 A. Yes.

16 Q. I'd like you to turn to the Appendix A at the
17 back of Exhibit 1002. It's actually separately
18 stapled, if that makes it easier for you.

19 A. Yes.

20 Q. And is Appendix A a copy of your curriculum
21 vitae?

22 A. Yes.

23 Q. And is that -- is this CV current as of
24 today?

25 A. Yes.

1 JAY D. MABREY, M.D.

2 Q. Okay. Have you ever served as an expert
3 witness before?

4 A. Yes.

5 Q. Okay. How many cases have you served as an
6 expert witness?

7 A. One or two. It's been over several years.

8 Q. Okay. And were these -- were those one or
9 two cases patent cases?

10 A. The first one was, yes.

11 Q. And what was the subject matter of the other
12 case?

13 A. I believe there was medical liability.

14 Q. Let's start with the patent case. What was
15 the technology involved in that case?

16 A. A pneumatic compression foot pump. The
17 parties involved were KCI v. Kinnamed.

18 Q. Can you spell the second party?

19 A. K-i-n-n-a-m-e-d.

20 Q. And were you deposed in that case?

21 A. No.

22 Q. Did you ever testify in court in that case?

23 A. No.

24 Q. In the medical liability case, what were the
25 parties involved, if you recall?

JAY D. MABREY, M.D.

A. It involved a hip implant.

Q. Okay. And were you deposed in that case?

A. No.

Q. And did you testify in court at all in that case?

A. No.

Q. Have you ever been deposed in any proceeding?

A. Yes.

Q. If you can recall, how many times you have been deposed?

A. Two or three times.

Q. But those were not -- I presume those were not cases in which you were serving as an expert witness?

A. Correct.

Q. So you were a fact witness in those cases?

A. Correct.

Q. Have you ever had occasion to submit any -- well, let me recouch that. Leaving aside inter partes reviews that you have worked on for Smith & Nephew, have you submitted any other declarations to the United States Patent Office in any other proceedings?

A. I have not, no.

Q. Do you currently teach at Texas A&M?

JAY D. MABREY, M.D.

A. I teach at Baylor University Medical Center, and I am a professor of surgery at Texas A&M, and I hold that title because Texas A&M medical students rotate through our facility. So I don't teach at Texas A&M.

Q. Okay. So they rotate through the facility at Baylor; is that --

A. In Dallas, correct.

Q. Okay. All right. So describe for me what your responsibilities are at Baylor as the chief -- or where you're teaching at Baylor.

A. I'm the chief of orthopedic surgery, and I oversee educational activities at the medical center. I serve on several committees and also serve as system champion for various aspects of medical care, such as the electronic health record and best practices. I interface with all the practicing surgeons and also conduct a tri-monthly grand rounds staff meeting, and I also conduct an advisory council every three months as well. I'm at the disposal of the president of the hospital and the president of the healthcare system as a resource for anything regarding orthopedics.

I have medical students that rotate through my practice. They come to my clinic and to my

1 JAY D. MABREY, M.D.

2 operating room. We have orthopedic residents who
3 rotate through our clinic and operating rooms from the
4 University of Texas Southwestern, and I'm responsible
5 for teaching them when they're in my presence. And I
6 also have a clinical practice that focuses on hip and
7 knee replacement.

8 Q. Okay. Describe for me, on a day-to-day
9 basis, what your clinical practice involves.

10 MR. OYLOE: Objection to form.

11 THE WITNESS: I have a private practice with
12 one partner. I have clinic 2-1/2 days a week. At
13 those clinics I receive referrals from all over the
14 healthcare system and from a three or four statewide
15 area. My clinical practice focuses on total hip and
16 total knee replacement, total hip revision, knee
17 revision, knee arthroscopy and hip arthroscopy.
18 During those clinics I see referrals from the Health
19 Texas Provider Network. I treat a variety of
20 conditions, but I focus on hip and knee. On days that
21 I'm not in my clinic I have 2-1/2 days of operating
22 room. Mondays I perform hip and knee arthroscopy, and
23 then Wednesdays and Fridays are full days devoted to
24 hip and knee replacement, hip and knee revision,
25 gluteal tendon repair.

JAY D. MABREY, M.D.

BY MR. KAPPEL:

Q. In your previous answer you made a distinction between knee replacement and knee revision.

A. Yes.

Q. Can you explain for me what each entails and how they differ?

A. Total knee replacement involves the de novo replacement of an arthritic or injured knee joint with a metal and polyethylene prosthesis. Total knee revision involves the repair or replacement of an existing total knee replacement with another knee replacement or the removal of that existing knee replacement for infection and replacement with a polymethyl methacrylate spacer.

REPORTER MARTIN: With a what? I'm sorry. Poly?

THE WITNESS: Polymethyl methacrylate. You could write PMMA.

REPORTER MARTIN: I'm sorry.

MR. KAPPEL: It's okay.

Q. Okay. Turning to the second page of your CV, I noticed that it indicates that you presently consult or work for Parcell Labs, Exactech, and Mabrey Medical

1 JAY D. MABREY, M.D.

2 Templates; is that correct?

3 A. Correct.

4 Q. What are your current responsibilities at
5 Parcell Labs?

6 MR. OYLOE: Objection to form.

7 THE WITNESS: For Parcell Labs I serve as a
8 consultant in obtaining human synovial tissue.
9 Actually, human synovial fluid at the time of primary
10 total knee replacement. Parcell Labs then takes that
11 fluid and extracts the stem cells to produce a
12 commercial product. I'm not involved in the
13 development of the product. The president of the
14 company is a friend, and I offered to help her with
15 that.

16 BY MR. KAPPEL:

17 Q. Okay. I see you list your position at
18 Exa- -- as Exactech as "design consultant"; is that
19 correct?

20 A. Yes.

21 Q. What is the nature of your work for Exactech?

22 A. Two products. The first product is the CR
23 Plus cruciate retaining knee. This is a knee
24 replacement that has a variable slope polyethylene
25 insert, and I was on the original design team for that

JAY D. MABREY, M.D.

product.

The second area that I'm consulting is on the Logitech posterior stabilized knee with a modular cross bar.

And the third project I'm involved with is the GPS guidance system for Exactech for performing total knee replacement. Computer navigation.

Q. Finally, I see -- well, you list yourself as CEO of Mabrey Medical Templates from 1989 --

A. Yes.

Q. -- to the present; is that correct?

A. Yes.

Q. And what is the nature of your work for Mabrey Medical Templates?

A. It's medical art. I started back -- as a company to produce templates, literally plastic templates with the outlines of various anatomical parts to aid physicians describing injuries in the emergency room or describing their surgeries, as we would cut out these plastic templates, and they were sold at medical schools. Now, with the advent of the electronic medical record, that has fallen by the wayside, and now I focus on computer graphics and animation of surgical procedures using animation

JAY D. MABREY, M.D.

software.

Q. Okay. You seem to have a lot of activity. So let me ask you if I've missed any other professional activities that you are currently involved in?

A. None, other than my official functions as the chief of orthopedics and as a professor of orthopedic surgery.

Q. Okay. On Page 2 of your CV you note that you consulted for Howmedica between 1995 and 1997; is that correct?

A. Correct.

Q. And describe for me the work that you did for Howmedica.

A. I was basically on surgeon panels and provided them with feedback for various adult reconstruction products.

Q. Can you list for me the products that you can recall?

A. There were several. I remember one was a hydroxyapatite coated acetabular component.

Q. Let me back up. So what exactly is that used for?

A. That's used in total hip replacement, and the

1 JAY D. MABREY, M.D.

2 acetabular component is a dome shaped piece of metal
3 that fits into the pelvis and receives the head of the
4 prosthesis. Hydroxyapatite is a bone-like coating and
5 encourages on-growth of bone onto the implant and
6 stabilizes it. What I remember, I wasn't impressed.
7 It was rubbing off on my fingers.

8 Q. Okay. Did you do any -- did you do any
9 consulting work regarding any knee replacement
10 products for Howmedica?

11 A. No, none that I can recall.

12 Q. Okay. And continuing on Page 2 of your CV, I
13 note that you were a consultant for Smith & Nephew
14 between 1991 and 1997; is that correct?

15 A. Yes.

16 Q. Describe for me the work that you did for
17 Smith & Nephew in that time frame.

18 A. I served as a lecturer at some of their
19 medical meetings and also an instructor at some of
20 their cadaver labs.

21 Q. So in the cadaver labs you were providing
22 instruction to other physicians; is that correct?

23 A. Overseeing surgery at the time, yes.

24 Q. And what types of surgeries were you
25 overseeing?

1 JAY D. MABREY, M.D.

2 A. Total hip replacement.

3 Q. Again, on Page 2 of your CV I see that you
4 consulted for -- and I'll mispronounce this for sure.
5 DePuy.

6 A. DePuy.

7 Q. DePuy. Easier than I thought. Between 2000
8 and 2004; is that correct?

9 A. Correct.

10 Q. And please describe for me the work that you
11 did for DePuy in that time frame.

12 A. I was asked to provide feedback on their
13 surgical robotics system. It was a knee navigation
14 system.

15 Q. From your previous answers I gather that you,
16 over your career, performed total knee replacement
17 surgeries; is that correct?

18 A. Yes.

19 Q. When did you first perform a total knee
20 replacement surgery? I don't need an actual date, but
21 approximate year will be fine.

22 A. Can you clarify "participate" or conduct as
23 the primary surgeon?

24 Q. Let's start with participate in a total knee
25 replacement surgery.

1 JAY D. MABREY, M.D.

2 A. 1978.

3 Q. And was that while you were in medical
4 school?

5 A. Yes.

6 Q. And when was the first occasion -- again,
7 just year will be fine -- that you were a primary
8 physician at total knee replacement surgery?

9 A. 1985, 1986.

10 Q. When was the first time you were a primary
11 physician at partial knee replacement surgery?

12 MR. OYLOE: Objection to form.

13 THE WITNESS: To the best of my recollection,
14 I was not part of that partial knee replacement -- or
15 not involved in the partial knee replacement.

16 BY MR. KAPPEL:

17 Q. Okay. So let's back up. Have you ever
18 performed a partial knee replacement?

19 A. No.

20 Q. On your CV on Page 2, you list work for
21 Source Medical as a consultant between 2001 and 2004;
22 is that correct?

23 A. Yes.

24 Q. Describe for me the work that you did for
25 Source Medical.

1 JAY D. MABREY, M.D.

2 A. I was asked to provide comments on their
3 plans for a physical therapy program. I don't believe
4 I received any compensation for that.

5 Q. What type of physical therapy program were
6 you advising on?

7 A. For hip and knee replacements.

8 Q. Approximately how many -- well, let's start
9 in the present day. Can you tell me in --
10 approximately how many total knee replacement
11 surgeries did you perform as a primary physician in
12 2003 -- I'm sorry -- 2013?

13 A. Between 80 and 100.

14 Q. And would that estimate of 80 to 100 in a
15 year be accurate for prior years as well?

16 A. The year before, most likely.

17 Q. Were there years in which you think you
18 performed far less than that?

19 A. Yes.

20 Q. Okay. What years would those be?

21 A. 2004 I was recruited to become the chief of
22 orthopedics at Baylor University Medical Center, which
23 is in a new city and I had to basically establish a
24 new orthopedic practice.

25 Q. Is there a particular brand and model of knee

1 JAY D. MABREY, M.D.

2 prosthesis that you use in your practice?

3 MR. OYLOE: Objection. Compound.

4 THE WITNESS: Are you asking for all
5 prostheses?

6 BY MR. KAPPEL:

7 Q. Yes. Tell me.

8 MR. OYLOE: Same objection.

9 THE WITNESS: In my practice I use knee
10 prostheses from Exactech, based in Gainesville,
11 Florida. Smith & Nephew, based in Memphis, Tennessee,
12 and DePuy Johnson & Johnson, Warsaw, Indiana.

13 REPORTER MARTIN: Where in Indiana?

14 THE WITNESS: Warsaw, Indiana.

15 BY MR. KAPPEL:

16 Q. Turning to Page 7 of your declaration,
17 paragraph 13 you state that you are being compensated
18 at your normal consulting rate for your work; is that
19 correct?

20 A. Correct.

21 Q. And what is that rate?

22 A. \$500 per hour.

23 Q. Approximately how much time did you spend
24 preparing your declaration?

25 A. 30, 35, 40 hours.

1 JAY D. MABREY, M.D.

2 Q. Please describe for me the steps that you
3 took in preparing the declaration.

4 MR. OYLOE: Objection. I'll just caution you
5 that you can discuss the drafting, but don't reveal
6 any communications with counsel.

7 THE WITNESS: I reviewed the patents in
8 question, and I performed independent research at two
9 separate medical libraries. I performed on-line
10 searches and I -- through Google and the on-line
11 medical database. I then retrieved papers, chapters
12 of books, made copies, and reviewed those and then
13 reviewed my findings with counsel.

14 BY MR. KAPPEL:

15 Q. Are you familiar with the term "prosecution
16 history" as it relates to a patent?

17 A. No.

18 Q. Okay. Did you review a record of the
19 proceedings before the patent office that led to the
20 granting of U.S. Patent 7,806,894?

21 MR. OYLOE: Objection to form.

22 THE WITNESS: I reviewed multiple documents.
23 I don't remember assigning them a particular title.

24 (Pause in proceedings.)

25 MR. KAPPEL: I'm going to hand you what's

1 JAY D. MABREY, M.D.

2 been previously marked as Exhibit S&N 1014.

3 (Previously marked Exhibit 1014.)

4 (The witness reviewed Exhibit 1014.)

5 BY MR. KAPPEL:

6 Q. Do you recognize this document?

7 A. No, I don't.

8 MR. KAPPEL: I'd like to refer you to
9 Exhibit 1002, which is your declaration at Page 22.
10 And, in particular, the end of Paragraph 45.

11 (The witness reviewed Exhibit 1002.)

12 BY MR. KAPPEL:

13 Q. Do you see that passage?

14 A. Yes.

15 Q. And do you see the reference to "'896 patent
16 file history, April 30, 2007, Response, Page 13
17 (Exhibit 1014)." Do you see that?

18 A. Yes.

19 Q. Okay. A moment ago you told me you didn't
20 know -- have an understanding of the word -- well,
21 actually, let me rephrase that because I said
22 "prosecution history."

23 What did you mean by "the patent file
24 history" at the end of Paragraph 45?

25 MR. OYLOE: Objection to form.

1 JAY D. MABREY, M.D.

2 THE WITNESS: Most likely, terminology
3 provided to me by counsel as part of our collaborative
4 effort.

5 BY MR. KAPPEL:

6 Q. Okay. So you couldn't tell me, sitting here
7 today, what a patent file history is?

8 MR. OYLOE: Objection to form.

9 THE WITNESS: I don't recall the term.

10 BY MR. KAPPEL:

11 Q. So you do not know what is in a patent file
12 history other than, I guess, Exhibit 1014?

13 MR. OYLOE: Objection. Mischaracterizes.

14 THE WITNESS: Whatever the contents were that
15 I reviewed months ago.

16 BY MR. KAPPEL:

17 Q. Did you review Exhibit 1014 during the course
18 of preparing your declaration?

19 MR. OYLOE: Objection to form.

20 THE WITNESS: I did at some point, months
21 ago. I don't remember the time offhand.

22 BY MR. KAPPEL:

23 Q. Do you know whether or not you reviewed any
24 other portion of the patent file history while you
25 were preparing this report?

1 JAY D. MABREY, M.D.

2 MR. OYLOE: Objection to form.

3 THE WITNESS: I'm sorry. Could you clarify
4 what you mean by "any other part of the patent file
5 history."

6 BY MR. KAPPEL:

7 Q. Do you know whether or not Exhibit 1014 is
8 the only documents in the '896 patent file history?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: I know I reviewed several
11 documents in the past, and I have not memorized them.

12 MR. KAPPEL: I'm handing you what's been
13 previously marked as Exhibit S&N 1001, which is
14 United States Patent Number 7,806,896.

15 (Previously marked Exhibit 1001.)

16 (The witness reviewed Exhibit 1001.)

17 BY MR. KAPPEL:

18 Q. Do you recognize that document?

19 A. Yes, I do.

20 Q. Is this a document that you reviewed in
21 preparation -- in preparing your declaration?

22 A. Yes, it is.

23 Q. Have you read the entirety of Exhibit 1001?

24 A. At one point I went through the entire
25 document.

1 JAY D. MABREY, M.D.

2 Q. How many times would you say you read through
3 Exhibit 1001?

4 A. Twice perhaps.

5 Q. I'd like to refer you to your declaration,
6 Exhibit 1002, Page --

7 MR. KAPPEL: Why don't we take a five-minute
8 break.

9 MR. OYLOE: Okay.

10 THE VIDEOGRAPHER: Off the record at 10:01.

11 (A recess was taken from 10:01 a.m.
12 to 10:08 a.m.)

13 THE VIDEOGRAPHER: We are back on the record
14 at 10:08.

15 MR. KAPPEL: Dr. Mabrey, I'd like to refer
16 you to Paragraph 16 of your declaration, which is on
17 Page 7. And the last sentence of Paragraph 16 reads,
18 "This definition is consistent with the '896 patent
19 specification," and you cite to the '896 patent's"
20 Column 38, Lines 9 to 18.

21 Q. Is that correct?

22 A. Yes.

23 Q. And did you choose that citation or that
24 passage in your declaration?

25 MR. OYLOE: Objection to form.

1 JAY D. MABREY, M.D.

2 THE WITNESS: Yes.

3 BY MR. KAPPEL:

4 Q. Why did you choose that passage?

5 MR. OYLOE: Objection to form.

6 (The witness reviewed the document.)

7 THE WITNESS: Just to define the term
8 "guide." He refers to the "femoral cutting guide,"
9 "tibial resection guide" in Lines 14 and 15.

10 BY MR. KAPPEL:

11 Q. How does that tell you that a cutting guide
12 should be a guide that has a guide surface and that
13 the term "guide surface" should mean a surface that
14 guides a cutting instrument?

15 MR. OYLOE: Objection to form.

16 THE WITNESS: That's my definition of a
17 guide. That's the way I use it in my practice.

18 BY MR. KAPPEL:

19 Q. This passage that you cited does not include
20 the term "guide surface," does it?

21 A. It doesn't use the word "surface," no.

22 Q. When we spoke previously, I believe you
23 stated you spent 30 to 35 hours preparing this
24 declaration; is that correct?

25 MR. OYLOE: Objection. Mischaracterizes.

JAY D. MABREY, M.D.

BY MR. KAPPEL:

Q. How much time did you spend -- I'll withdraw.

How much time do you estimate you spent preparing this declaration?

A. Again, I don't remember the exact amount of time. Several hours.

Q. Several?

A. Yes.

Q. So it could have been -- what would be the range that you would define "several hours"?

A. 30, 40, 50 hours.

Q. Okay. And did you draft this declaration?

MR. OYLOE: Objection to form.

THE WITNESS: Could you clarify, please.

BY MR. KAPPEL:

Q. Did you type the words that are written in this declaration?

A. I did not type this out on my computer.

Q. Okay. Did you dictate the words to someone else who was typing this out on the computer?

A. I did not dictate.

Q. I'd like you to describe for me the process -- be careful not to disclose any attorney-client communication -- of how this 68-page

JAY D. MABREY, M.D.

declaration, the text of it was prepared.

A. I had several E-mail exchanges with counsel. I had several phone exchanges with counsel, and I had one in-person meeting with counsel. During that time the document was being drafted. My input was on paper. I provided feedback and corrected several drafts.

Q. Great.

I'll refer you to Page 33 of your declaration. The second sentence on Page 33 begins, "A person of ordinary skill in the art." Do you see that?

A. Yes.

Q. Please describe for me what you mean by "person of ordinary skill in the art."

MR. OYLOE: Objection to form.

THE WITNESS: I would define the art here as the art of knee replacement surgery, someone with ordinary skill in the art would be someone who performs knee replacement surgery. Someone who has completed with residency and most likely fellowship in joint replacement.

BY MR. KAPPEL:

Q. When you refer to "a person of ordinary skill

1 JAY D. MABREY, M.D.

2 in the art" at Page 33, are you referring to someone
3 with that experience today in 2014?

4 MR. OYLOE: Objection.

5 THE WITNESS: No.

6 BY MR. KAPPEL:

7 Q. In what time frame would that person have the
8 skill you described?

9 A. At the time of the Delp article.

10 REPORTER MARTIN: Delp?

11 THE WITNESS: Delp, D-e-l-p. I'm dropping my
12 voice again. Sorry.

13 MR. KAPPEL: I'd like to refer you now to
14 Paragraph 45 of your declaration, which is on Page 22.
15 That paragraph begins "Of the 112 columns of material
16 in the specification, only a few description
17 paragraphs even arguably relate to the purportedly
18 novel features of the claimed invention."

19 Q. Do you see that?

20 A. Yes.

21 MR. OYLOE: Can I just -- sorry to interrupt.
22 What page number again?

23 MR. KAPPEL: 22.

24 MR. OYLOE: 22. Sorry.

25 BY MR. KAPPEL:

1 JAY D. MABREY, M.D.

2 Q. Please list for me the paragraphs that you
3 are referring to in that sentence.

4 MR. OYLOE: Objection to form.

5 THE WITNESS: So that would be Column 3,
6 Paragraph 4. "A cut on a bone in the patient may be
7 completed using previously cut surfaces as a guide for
8 the cutting tool."

9 BY MR. KAPPEL:

10 Q. Okay. Now, continuing on Paragraph 45 of
11 your declaration, you continue, and that's "Applicant
12 appears to have relied -- without explanation -- on
13 this disclosure for the conclusion that: 'The present
14 invention provides a means for cutting bone, where the
15 guide member is free of extramedullary or
16 intramedullary members.'" Do you see that?

17 A. Yes.

18 Q. And is that what you call the purportedly
19 novel features that you're referring to in the first
20 sentence of Paragraph 45?

21 MR. OYLOE: Objection. Form.

22 THE WITNESS: One of the purportedly novel
23 features, yes.

24 BY MR. KAPPEL:

25 Q. So you don't see anywhere else in the '896

1 JAY D. MABREY, M.D.

2 patent, other than Column 3, Lines 28 to 30, where
3 they disclose a guide member free of extramedullary,
4 intramedullary members; is that correct?

5 MR. OYLOE: Objection to form.

6 THE WITNESS: It is to the best of my
7 recollection.

8 MR. KAPPEL: Okay. I'd like to refer you to
9 Exhibit 1001, Figure 53.

10 (The witness reviewed Exhibit 1001.)

11 THE WITNESS: I'm sorry.

12 BY MR. KAPPEL:

13 Q. Figure 53.

14 A. Okay.

15 Q. Are you familiar with Figure 53?

16 A. Yes.

17 Q. And this Figure 53 is depicting a femoral
18 cutting guide?

19 MR. OYLOE: Objection to form.

20 THE WITNESS: Yes.

21 BY MR. KAPPEL:

22 Q. Do you see any intramedullary or
23 extramedullary alignment devices in Figure 53?

24 MR. OYLOE: Objection to form.

25 THE WITNESS: They are not depicted in the

1 JAY D. MABREY, M.D.

2 figure.

3 MR. KAPPEL: Well, let's go to the
4 description. I'll take you to Column 69. Beginning
5 on Line 2, and it continues on. Why don't you just
6 take a look at Column 69 up to the beginning of
7 Column 70, and take a minute to review that, and I'll
8 ask you some questions.

9 (The witness reviewed Exhibit 1001.)

10 THE WITNESS: Okay.

11 BY MR. KAPPEL:

12 Q. Now, turning to Lines 35 to 41 of Column 69,
13 would you agree that the '896 patent indicates that
14 the cutting guide 750 is connected to the femur by
15 pins 784 and 786?

16 A. It's not obvious that those are pins. I
17 assume these are holes (indicating)?

18 Q. Well, again, I'm referring -- I'm going to
19 read you from --

20 A. I see --

21 Q. -- Column 69, Paragraph -- beginning in
22 Line 36. "The femoral cutting" -- I'm quoting, "The
23 femoral cutting guide 750 is connected" to "the distal
24 end of the femur 126 by a pair of pins 784 and 786."
25 Do you see that column?

1 JAY D. MABREY, M.D.

2 A. Yes.

3 Q. And it's not connected -- there's no -- let
4 me rephrase that.

5 There is no intramedullary alignment rod
6 depicted in Paragraph 53, is there?

7 MR. OYLOE: Objection.

8 THE WITNESS: There is no intramedullary
9 guide rod shown in this figure.

10 BY MR. KAPPEL:

11 Q. Okay. Would you agree, as depicted in
12 Figure 53 and discussed in Paragraph 99, that the
13 cutting guide 750 is secured with the femur without an
14 intramedullary or extramedullary alignment device?

15 MR. OYLOE: Objection to form.

16 THE WITNESS: There is no extramedullary or
17 intramedullary attachment device.

18 BY MR. KAPPEL:

19 Q. But you don't mention that Figure 53 in your
20 report at Paragraph 45, do you?

21 A. It's not mentioned in that paragraph.

22 Q. Okay. Why not?

23 A. The paragraph was set as an example. It
24 wasn't meant to mention each and every instance.

25 Q. Okay. Well, let's get to that. So tell me

1 JAY D. MABREY, M.D.

2 the other instances where the '896 patent describes a
3 guide member free of an extramedullary or
4 intramedullary member.

5 MR. OYLOE: Objection to form.

6 THE WITNESS: That would be in Figure 54.

7 BY MR. KAPPEL:

8 Q. Okay. So also Figure 54. Anything else?

9 A. None that I recall at this point.

10 Q. So you would agree that both Figure 53 and
11 Figure 54 depict femoral cutting guides which are
12 secured to the femur without any intramedullary or
13 extramedullary alignment device; correct?

14 MR. OYLOE: Objection to form.

15 THE WITNESS: Aside from considering the pins
16 to be extramedullary, no.

17 BY MR. KAPPEL:

18 Q. I'd like to refer you to Figure 94 of
19 the '896 patent. Are you familiar with Figure 94?

20 MR. OYLOE: Objection to form.

21 THE WITNESS: I've seen it in my review.

22 BY MR. KAPPEL:

23 Q. Okay. How would you define "extramedullary
24 alignment device"?

25 MR. OYLOE: Objection to form.

1 JAY D. MABREY, M.D.

2 THE WITNESS: A device which does not violate
3 the medullary canal, that provides the surgeon with
4 information regarding the orientation of the bone and
5 the joint surfaces.

6 MR. KAPPEL: I'd like to refer you to
7 Column 104. And feel free, by the way, to read any
8 passages you'd like, but I'm going to refer you to
9 where I think you might be most interested, and that's
10 Column 104, Lines 38 to 54. Please just take a moment
11 to review that.

12 (The witness reviewed the document.)

13 THE WITNESS: Okay.

14 BY MR. KAPPEL:

15 Q. In that passage on Column 104 it indicates
16 that the cutting guide 1372 can "be pinned to the
17 femur in a manner analogous to the cutting guide (" of
18 "Figure 54)"; correct?

19 A. That's what it says, yes.

20 Q. Okay. So cutting guide 1372 could also be
21 mounted to the femur without an intramedullary,
22 extramedullary alignment rod; correct?

23 A. As described in Column 104, yes.

24 Q. Are you familiar with the type of procedure
25 known as "geometric total knee arthroscopy?"

1 JAY D. MABREY, M.D.

2 A. Clarification, please.

3 MR. KAPPEL: Okay. I'm going to hand you
4 what's previously marked as Exhibit S&N 1008.

5 (Previously marked Exhibit 1008.)

6 MR. KAPPEL: It's entitled "GEOMETRIC AND
7 ANAMETRIC TOTAL KNEE REPLACEMENT."

8 THE WITNESS: For clarification, you used the
9 term "arthroscopy" with geometric knee, and I wasn't
10 sure what you meant.

11 BY MR. KAPPEL:

12 Q. Okay. Well, what would be -- what about that
13 usage do you find confusing or imprecise?

14 A. Arthroscopy is a minimally invasive procedure
15 using intraarticular cameras and instruments.
16 Arthroplasty is the replacement of the knee.

17 Q. I'm sure I'll make many mistakes along those
18 lines, and I appreciate, actually, you clarifying
19 those.

20 A. You are not the first person to say
21 that. That's why I asked for clarification.

22 Q. I've done very well with pronouncing
23 "intramedullary" so far, but I'm sure that's not going
24 to last either.

25 A. Okay.

1 JAY D. MABREY, M.D.

2 Q. Okay. So, for clarification, let's start
3 with Exhibit 1008. Are you familiar with this
4 document?

5 A. Yes.

6 Q. And is this a document that's referenced in
7 your declaration?

8 A. It is.

9 Q. How did you come across this exhibit?
10 Actually, let me rephrase that. How did you come
11 across this article?

12 MR. OYLOE: Objection to form.

13 THE WITNESS: I pulled several articles from
14 the medical library at the University of Texas
15 Southwestern. I can't remember if this was from there
16 or not. I went to our other medical library and
17 pulled this off as well. Counsel also provided copies
18 of articles.

19 BY MR. KAPPEL:

20 Q. And this is fine, but you can't recall,
21 sitting here today, whether this was a document that
22 you found on your own or that was provided to you?

23 A. I reviewed many, many documents. I did not
24 track them.

25 Q. Okay. That's fine. Now, this document

1 JAY D. MABREY, M.D.

2 refers to a geometric total knee replacement; is that
3 correct?

4 A. Yes.

5 Q. Okay. Leaving aside this document, in your
6 experience as a surgeon, a doctor, were you otherwise
7 familiar with the geometric total knee design?

8 A. Yes.

9 Q. Okay. Had you ever performed a surgery using
10 a geometric total knee?

11 A. Not to my recollection, no.

12 Q. Okay. Is the geometric total knee design,
13 that is, used today?

14 MR. OYLOE: Objection to form.

15 THE WITNESS: The geometric knee is not
16 available for implantation today.

17 BY MR. KAPPEL:

18 Q. Was the geometric knee available for
19 implantation in 1990?

20 A. Not having used it, I wouldn't know.

21 Q. Previously -- in answer to my previous
22 question, you indicated that in your experience as a
23 surgeon you were at some point familiar with the
24 geometric total knee design; is that correct?

25 A. Yes.

1 JAY D. MABREY, M.D.

2 Q. Okay. And you additionally stated that to
3 your recollection you've never performed a surgery
4 with the geometric total knee design; correct?

5 A. Correct.

6 Q. Okay. So how is it that you were familiar
7 with the design?

8 A. As a medical student at Cornell University I
9 was a research assistant in the laboratory of
10 Dr. Albert Burstein, the chief designer of the
11 Insall-Burstein knee, and also responsible for the
12 designs of several other knee replacements. I worked
13 with him and other researchers in the biomechanics lab
14 on the seventh floor of the hospital for special
15 surgery in New York City. The biomechanics lab
16 operated one of the largest and most complete
17 retrieval labs of total knee replacements in the
18 country at that time.

19 Implants that had failed for various reasons,
20 infection, fracture, wear, were removed at the
21 hospital for special surgery, cleaned, sterilized, and
22 put in a repository for cataloging, specifically to
23 look at wear patterns on the polyethylene component
24 and also to assess the metallurgy of the metallic
25 component.

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2 In addition to that, Dr. Burstein conducted
3 several lectures on the history of the total knee
4 replacement, and the geometric knee features
5 prominently in the original design concept for current
6 total knee designs.

7 Q. When you worked with him, with
8 Dr. Burnstein -- Burstein --

9 A. Burstein, B-u-r-s-t-e-i-n.

10 Q. -- at the hospital for special surgery, what
11 time frame was that?

12 A. 1977 until 1981. And then that was as a
13 medical student. I returned in 1990 to 1991 as a
14 fellow, working in the biomechanics lab as well.

15 Q. These lectures where you were -- where there
16 was discussed the geometric knee, would that have been
17 in 1977, 1981 time frame?

18 A. Throughout that time frame and ongoing until
19 today. As I've said, Dr. Burstein features the
20 geometric knee as an important concept in the original
21 design of a dual condylar knee.

22 (Previously marked Exhibit 1005.)

23 MR. KAPPEL: I'm giving you what's been
24 previously marked as S&N 1005.

25 (Previously marked Exhibit 1005.)

1 JAY D. MABREY, M.D.

2 (The witness reviewed Exhibit 1005.)

3 BY MR. KAPPEL:

4 Q. Is Exhibit 1005 a copy of the Stulberg
5 article which is referenced in your declaration at
6 Page 52? I'm sorry. That's a mistake.

7 I meant to say is Exhibit 1005 a copy of the
8 Stulberg reference which is referenced in your
9 declaration at Paragraph 52, which is on Page 25?

10 (The witness further reviewed Exhibit 1005.)

11 THE WITNESS: Yes, it is.

12 BY MR. KAPPEL:

13 Q. And at Page 48 of your declaration at
14 Paragraph 88, is it correct that you referenced
15 Page 30 of Stulberg as disclosing "cutting guide [is]
16 secured to the bone free of an extramedullary or
17 intramedullary alignment rod"?

18 A. Yes.

19 Q. And do you reach that -- was that because --
20 back that up.

21 And you state -- is it correct that in
22 Paragraph 88 you state that the reason that Stulberg
23 disclosed the cutting guide secured to the bone free
24 of an extramedullary or intramedullary alignment rod
25 is "because the cutting is aligned using the computer

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2 and 'secured to the femur with a 5-millimeter threaded
3 wire'?"

4 A. Yes.

5 Q. At Page 30 of Stulberg, Stulberg references
6 Figure 16A and 16B as showing the femoral cutting
7 guide for the computer-assisted technique; is that
8 correct?

9 A. Correct.

10 Q. Please describe for me how you understand
11 this cutting guide in Figures 16A and 16B to be
12 positioned and secured to the femur.

13 MR. OYLOE: Objection to form.

14 THE WITNESS: Per Dr. Stulberg's delineation
15 of the technique, the cutting guide is positioned with
16 assistance of the computer and then secured with a pin
17 to the distal femur.

18 BY MR. KAPPEL:

19 Q. And so the computer is used to position the
20 cutting guide on the femur; is that correct?

21 A. Yes.

22 Q. And is -- according to Stulberg, is accurate
23 placement of the cutting guide important?

24 A. Yes.

25 Q. Why is it important to accurately place a

1 JAY D. MABREY, M.D.

2 cutting guide on the femur?

3 MR. OYLOE: Objection to form.

4 THE WITNESS: Clarification, please.

5 BY MR. KAPPEL:

6 Q. Let's turn to Exhibit 1005. And the first
7 paragraph, not including -- not referring to the
8 abstract. If you see, Stulberg reports, and I'm
9 quoting, "A number of studies have suggested that
10 alignment errors of greater than 3 percent are
11 associated with more rapid failure and less
12 satisfactory functional results of total knee
13 arthroplasties." Do you see that?

14 A. Yes.

15 Q. Okay. Would you agree that Stulberg seeks to
16 reduce those errors by using a computer-assisted
17 technique to more accurately place the cutting guide
18 on the femur?

19 MR. OYLOE: Objection. Form.

20 THE WITNESS: Can you clarify as to which
21 step of the procedure you're referring to with respect
22 to placement of the cutting guide on the femur.

23 BY MR. KAPPEL:

24 Q. Let's refer to Page 30 of Stulberg.

25 A. And, again, I'm not trying to be obscure.

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2 This is a very complex process with computer
3 navigation. There are many steps involved. And I
4 want to make sure that we're talking about the correct
5 step.

6 Q. Okay. Let's take a look on Page 30, and the
7 discussion beginning "Distal femoral cut.
8 Computer-assisted technique." Can you explain for
9 me -- to me how computer assisted -- computer-assisted
10 technique is used to locate the cutting guide in
11 this -- in order to prepare the distal femoral cut?

12 MR. OYLOE: Objection to form.

13 THE WITNESS: Step 1 is exposure of the
14 distal femur through a midline incision.

15 Step 2 is an attachment, an optical tracker
16 to the distal femur in the metathesis.

17 Step 3 is the determination of the mechanical
18 axis of the femur by rotating the leg around the
19 center rotation of the femoral head. The computer can
20 then take that data and calculate the precise
21 mechanical axis of the femur. What it cannot
22 calculate is the rotation of a component on the end of
23 the femur.

24 Step 4 is to now use that data to precisely
25 place the cutting guide with respect to the distal

1 JAY D. MABREY, M.D.

2 femur in terms of its sagittal and coronal positions.
3 It is then fixed to the distal femur with the
4 5 millimeter pin, and then additional adjustments are
5 made after that to allow for rotation of the component
6 and balance.

7 BY MR. KAPPEL:

8 Q. And that additional adjustment, is that also
9 using the computer --

10 A. Yes.

11 Q. How does that work?

12 A. The tracking -- a second tracking device is
13 attached to the cutting block. We can go to Page --
14 it's easier to explain if you can see the picture.
15 The photos don't do it justice.

16 (The witness further reviewed Exhibit 1005.)

17 THE WITNESS: Okay. So in figure 16B, this
18 is an oblique view of the distal femur. The cutting
19 block is secured to the distal femur with the pin, and
20 you can see the stock of the femoral tracking device
21 at the top. That's the one with the little saucers
22 around it. 16B.

23 BY MR. KAPPEL:

24 Q. Oh. Okay.

25 A. And then the wedge-shaped device you see to

1 JAY D. MABREY, M.D.

2 the left is attached to the cutting block itself. The
3 computer calculates the relative positions between
4 what it now knows as the mechanical axis of the femur
5 and position of the cutting block. The geometry of
6 the cutting block is programmed into the computer so
7 that it knows exactly where the cutting surface is and
8 can provide the surgeon with the precise location.

9 Once that device -- once it's in a correct
10 position as far as alignment to the mechanical axis,
11 which it could rotate around 360 degrees, once it's in
12 that general position, then the final position is
13 determined by turning this knob and aligning the
14 rehabilitation by the femur -- or the femoral
15 component. Let me correct that.

16 It is the alignment of the cutting surface on
17 the distal femur.

18 Q. According to Stulberg, that technique
19 provides a more accurate placement than an
20 intramedullary or extramedullary alignment device; is
21 that correct?

22 A. Yes.

23 MR. OYLOE: Objection to form.

24 BY MR. KAPPEL:

25 Q. And why is it important for the cutting guide

1 JAY D. MABREY, M.D.

2 to be positioned so accurately?

3 MR. OYLOE: Objection to form.

4 THE WITNESS: Previous studies and subsequent
5 studies in orthopedic literature have demonstrated
6 that total knee replacements implanted with poor
7 position outside that window of 2 to 3 degrees have a
8 higher failure rate and don't last as long.

9 BY MR. KAPPEL:

10 Q. I'd like for you to turn to Figure 17A and
11 17B.

12 A. Okay.

13 Q. Am I correct -- and please correct me if I'm
14 wrong. I'm trying to figure this out. So what is
15 being depicted in 17A and 17B is placing the cutting
16 guide or part of the cutting guide onto the cutting
17 block that was shown in Figure 16. Is that --

18 MR. OYLOE: Objection to form.

19 THE WITNESS: Figure 17A and B depict the
20 distal femoral cutting guide being inserted onto the
21 alignment jig.

22 BY MR. KAPPEL:

23 Q. Okay. All right. So just to make sure that
24 I have the terminology correct, you're referring to
25 the "alignment jig" as what is depicted in Figure 16A

1 JAY D. MABREY, M.D.

2 and then the distal femoral cutting guide is what's
3 being placed on top of it in Figure 17A and B; is that
4 correct?

5 A. Correct.

6 Q. And what cut is being made by the cutting
7 block -- distal femoral cutting block of Figure 17A
8 and 17B?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: What is being performed is the
11 distal femoral cut.

12 BY MR. KAPPEL:

13 Q. Let's turn to Page 13 of your report. And on
14 the figure to the left on Figure 13 you've labeled
15 several different cuts on a femur; is that correct?

16 A. Yes.

17 Q. And one of them you've labeled the "Distal
18 Cut"; is that correct?

19 A. Yes.

20 Q. Okay. And is that the cut that is made with
21 the cutting guide of Figure 17A and B of Stulberg?

22 A. Yes.

23 Q. So in Figure 17A of Stulberg, the cut goes
24 perpendicular to the 5 millimeter wire; is that
25 correct?

1 JAY D. MABREY, M.D.

2 A. I'm not intimately familiar with that
3 particular design. The cut being made is
4 perpendicular to the mechanical axis of the femur, and
5 from what I can see from this design, it appears that
6 that pin, once it is inserted, is also parallel to the
7 mechanical axis. The concept is to cut perpendicular
8 to the mechanical axis of the bone.

9 MR. KAPPEL: Fair enough. Why don't we stop
10 now before I go on to other topics.

11 THE VIDEOGRAPHER: This is the end of Tape 1
12 in the videotaped deposition of Jay Mabrey. We're off
13 the record at 11:11.

14 (A recess was taken from 11:11 a.m.
15 to 11:22 a.m.)

16 THE VIDEOGRAPHER: Here begins Tape 2 in the
17 videotaped deposition of Jay Mabrey. We're back on
18 the record at 11:22.

19 MR. KAPPEL: Dr. Mabrey, I'd like to refer
20 you now to Exhibit 1005, Dr. Stulberg, and Figure 12
21 on Page 33

22 Q. Would you agree that Figure 12 is described
23 as "An extramedullary alignment device for the tibial
24 cut used during the computer-assisted technique"? Do
25 you see that?

1 JAY D. MABREY, M.D.

2 A. Yes.

3 Q. As you understand Stulberg, how is this
4 extramedullary alignment rod used in the
5 computer-assisted technique?

6 A. The extramedullary device holds the tibial
7 cutting block in a general position. The tracking
8 device is attached to the cutting block, and then
9 minor adjustments are made to provide the final cut.

10 Q. Okay. So would it be accurate to say that
11 the extramedullary rod is used to provide a rough
12 placement of the cutting guide on the tibia, and then
13 the computer-assisted technique is used to more
14 accurately locate it?

15 MR. OYLOE: Objection to form.

16 THE WITNESS: In this particular technique,
17 per Dr. Stulberg, yes, that's how he's using this
18 device.

19 BY MR. KAPPEL:

20 Q. And so would you agree that, at least
21 according to Stulberg, the use of an extramedullary
22 alignment device isn't incompatible with the use of a
23 computer-assisted technique?

24 MR. OYLOE: Objection to form.

25 THE WITNESS: Extramedullary devices can be

1 JAY D. MABREY, M.D.

2 used with computer navigation.

3 BY MR. KAPPEL:

4 Q. Okay. Can you use intramedullary alignment
5 devices with computer navigation?

6 A. That has not been my experience.

7 Q. Okay. Do you see any passage in Stulberg
8 which states that you cannot use an intramedullary
9 alignment device in a computer-assisted technique?

10 MR. OYLOE: Objection to form.

11 THE WITNESS: I don't see any statements that
12 say that it cannot be used.

13 BY MR. KAPPEL:

14 Q. Okay. Does Stulberg express any concern with
15 the size of the alignment devices?

16 A. Can you clarify "concern"?

17 MR. OYLOE: Objection to form. Sorry.

18 BY MR. KAPPEL:

19 Q. Does Stulberg state that the size of its
20 alignment devices is of interest?

21 MR. OYLOE: Objection to form.

22 THE WITNESS: I don't see any passages where
23 he comments on the size.

24 BY MR. KAPPEL:

25 Q. Okay. Does Stulberg ever comment on the size

1 JAY D. MABREY, M.D.

2 of the cutting guides?

3 MR. OYLOE: Objection. Asked and answered.

4 THE WITNESS: As far as I can tell, from my
5 reading of this article from 2000, he does not.

6 BY MR. KAPPEL:

7 Q. And does Stulberg ever comment on the size of
8 the cutting surfaces on the cutting guide?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: Again, I can't find a place
11 where he does.

12 BY MR. KAPPEL:

13 Q. So nowhere in Stulberg does it say surfaces
14 of cutting guides are too large?

15 MR. OYLOE: Objection to form.

16 THE WITNESS: I don't see any passages
17 relating to that.

18 (Previously marked Exhibit 1003.)

19 MR. KAPPEL: Okay. I'm going to hand you
20 what's been previously marked as Exhibit S&N 1003.

21 Q. Is Exhibit 1003 a copy of the Delp article
22 which is referenced at your declaration at
23 Paragraph 50?

24 A. Yes.

25 Q. Would you agree the Delp article, like the

1 JAY D. MABREY, M.D.

2 Stulberg article, is concerned with accurate
3 positioning of the cutting guides?

4 MR. OYLOE: Objection to form.

5 THE WITNESS: Dr. Delp states that accurate
6 alignment is important.

7 BY MR. KAPPEL:

8 Q. Okay. And the Delp article was published
9 prior to the Stulberg article; is that correct?

10 A. Yes.

11 Q. The Delp article discusses three techniques,
12 computer integrated instruments for knee replacement,
13 image-guided knee replacements, and robot-assisted
14 knee replacement; is that correct?

15 A. Yes.

16 Q. Now, turning to Page 54 of Delp. And, in
17 particular, I'm going to refer you to the paragraph
18 that begins "Davis et al have designed a special
19 purpose robot for knee surgery." Do you see that?

20 A. Yes.

21 Q. Okay. So in that -- and that's a robot
22 assisted technique that they're describing there; is
23 that correct?

24 A. Yes.

25 Q. And in that technique, you don't actually use

1 JAY D. MABREY, M.D.

2 a physical cutting guide; is that correct?

3 A. Yes.

4 Q. Okay. But cutting guides are used in the
5 computer integrated instrument technique and in the
6 image guided technique which are discussed previously
7 in Delp; is that correct?

8 A. Yes.

9 Q. And starting with the abstract of the Delp
10 article, the Delp article reports that -- would you
11 agree the Delp article reports the computer-assisted
12 techniques were developed "to examine potential to
13 install knee implants more accurately and consistently
14 than can be done with mechanical guides"; is that
15 correct?

16 A. I'm sorry. Are you asking me if he quotes
17 that --

18 Q. Yes.

19 A. -- in the abstract?

20 Q. Yes.

21 A. "The potential to install knee implants more
22 accurately and consistently." Correct.

23 Q. Okay. And in that sense you'd say it's
24 similar to the later Stulberg article, which is also
25 discussing more accurate placement of cutting guides

1 JAY D. MABREY, M.D.

2 with computer-assisted instruments?

3 MR. OYLOE: Objection. Mischaracterizes the
4 documents.

5 THE WITNESS: Both articles discuss accuracy
6 as an important feature in computer-assisted knee
7 replacement.

8 BY MR. KAPPEL:

9 Q. Okay. I'd like to start with the computer
10 integrated technique, which begins on Page 50 and goes
11 on to Page 51. Can you describe for me how that
12 technique is performed?

13 A. Step 1, the surgeon secures the optical
14 reference devices which are tracked by an external
15 receiver, external camera. One tracker is attached to
16 the distal femur. The distal femur is then taken
17 through full range of motion around the center of
18 rotation of the hip. And by doing so, the computer
19 can calculate the precise mechanical axis of the
20 femur. And following determination of the mechanical
21 axis of the femur, using that reference line, and with
22 a tracking device attached to the cutting block, the
23 cutting block is attached to the distal femur. And
24 then cuts are made with the standard oscillating saw.

25 For the tibia, the knee and ankle are then

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2 manipulated to locate the average centers of those
3 joints, and that establishes the mechanical axis of
4 the tibia. And that is, with a tracking device,
5 attached to the proximal tibia. Again, the cutting
6 jig or cutting block with a navigation device is then
7 positioned based upon information provided by the
8 computer, affixed in place with pins, and an
9 oscillating saw is used to make that cut.

10 Q. And referring to Page 55, the first sentence
11 where -- quote right under the heading "DISCUSSION"
12 states, "Computer integrated instruments that combine
13 standard cutting guides with highly accurate
14 measurement equipment are a natural extension of
15 current techniques and offer several potential
16 advantages." Do you see that?

17 A. Yes.

18 Q. So you agree that in the computer integrated
19 technique, according to the Delp article, you're using
20 standard cutting guides?

21 MR. OYLOE: Objection to form.

22 THE WITNESS: According to Delp's article
23 from 1998, he mentions "standard cutting guides."
24 Correct.

25 BY MR. KAPPEL:

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2 Q. And there's -- other than attaching the light
3 emitting diodes, does the Delp article describe any
4 other modification made to the standard cutting
5 guides?

6 A. As far as I can tell, no. It does not
7 describe modifications other than the attachment
8 points for the optical trackers.

9 Q. Okay. Just continuing on Page 55 -- and I'm
10 on the second paragraph of Paragraph 55 where it
11 states, "although the computation of the mechanical
12 axes of the femur and tibia can improve alignment
13 accuracy, not all of the degrees of freedom are
14 controlled by the current alignment procedure." Do
15 you see that?

16 A. Yes.

17 Q. So you agree that, according to Delp, the
18 failure to control all the degrees of freedom is a
19 disadvantage of the computer integrated technique?

20 MR. OYLOE: Objection. Mischaracterizes the
21 document.

22 THE WITNESS: He's referring to this specific
23 tracking system, yes.

24 BY MR. KAPPEL:

25 Q. It would be better to have more control over

1 JAY D. MABREY, M.D.

2 the alignment of the cutting guide; correct?

3 MR. OYLOE: Objection to form.

4 THE WITNESS: Actually, I would disagree with
5 that.

6 BY MR. KAPPEL:

7 Q. So you'd prefer to have the less accurate
8 placement of the cutting guide on the femur?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: I disagree that additional
11 degrees of freedom are necessary. This system
12 provides you with the mechanical axis above the femur
13 and the tibia, and the accurate alignment and the
14 frontal plane can easily be achieved with merely those
15 two axes.

16 BY MR. KAPPEL:

17 Q. Let's move on to the second technique in the
18 Delp article, which is called the "IMAGE GUIDED KNEE
19 REPLACEMENT" technique. That's, I believe, described
20 on Pages 51 and -- actually, 52 and 53. Can you
21 explain to me how the image guided technique is
22 performed, according to the Delp article.

23 (The witness further reviewed Exhibit 1003.)

24 THE WITNESS: In this process, computerized
25 tomography is performed on the patient's lower

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extremity. From the data gathered by the computerized tomography, a geometrical model of that patient's bone is constructed in the computer. Preoperative planning then occurs in the computer to determine the position of the implant with respect to the mechanical axis and with respect to rotation using bony landmarks.

At the time of surgery with the computer system in the room, the surgeon then performs what is called "registration" by touching specific bony landmarks on the femur, which then tells the computer workstation where the patient's bone is in the operating room. This has to be done with the tracking device attached to both the femur and the tibia. Given that information, the cutting block is then positioned with respect to the computer model as displayed on the screen, and then the cut is performed.

BY MR. KAPPEL:

Q. So according to the Delp article, the cutting guides are modified to be connected to the measuring probe; is that correct?

A. The measuring probe is separate from the cutting guide. A measuring probe is similar to a pen, pencil, with a tracking device on the end, and the

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bony surfaces are then mapped out. As the surgeon then touches various aspects of the bony surface, the computer then matches that to the internal computer model that has already been constructed ahead of time. With that computer model, the surgeon has already determined not only the varus valgus angle, which is the side to side angle, which is probably the most important, but is also determined rotation and flexion extension of the implant.

Q. Okay. Taking a look at Page 52, the last paragraph, I'll read for you. "Intraoperative system consists of a graphic workstation, a coordinate measurement probe, and a set of cutting blocks that have been modified to attach to the measurement probe." Do you see that?

A. Yes.

Q. Okay. So a minute ago, when I asked whether the measurement probe, cutting blocks were modified to attach to the measuring probe, you said no. So can you explain how this system works as described?

A. I'm a bit confused by the terminology he's using here because in order to register the bony landmarks, one would require a separate measuring probe. I haven't used this particular system, and

1 JAY D. MABREY, M.D.

2 it's difficult to see in -- let's see. I believe it's
3 in Figure -- I don't think he mentions it. Yeah, in
4 Figure 1.

5 Q. Let's step back. Is there something --
6 there's some sort of probe or sensor -- is there some
7 sort of -- let me back up.

8 In the Delp article, would there be some sort
9 of probe or sensor attached to the cutting guides so
10 that you could track their location?

11 A. Yes.

12 MR. OYLOE: Objection to form.

13 BY MR. KAPPEL:

14 Q. Okay. Does the Delp article state that --
15 actually, other than being modified to attach to the
16 measurement probe, as described on Page 52, does the
17 Delp article discuss any other modifications to
18 cutting guides?

19 MR. OYLOE: Objection to form.

20 THE WITNESS: I have to take issue with his
21 use of terminology. My interpretation of how he's
22 using the term "measurement probe" would be what I
23 call a tracking device. In common parlance, probe has
24 a tracking device attached to it, but it is a pointed
25 or penlike device which locates single points in

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2 space. In this particular system, I would see that it
3 would require a tracking device on the femur, a
4 tracking device on the cutting block, and whether one
5 could use that same tracking device on the cutting
6 block and attach it to a probe, I'm not aware.

7 BY MR. KAPPEL:

8 Q. Okay.

9 A. But there must be some way to collect
10 individual points from the end of the femur so that
11 the computer can then register that with its internal
12 computer model, and that cannot be done with the
13 cutting block. It needs to be done with a separate
14 device.

15 Q. Does the Delp article describe how the
16 cutting guides are secured in place once they have
17 been properly located?

18 MR. OYLOE: Objection to form.

19 THE WITNESS: Are you referring to image
20 guided knee replacement at this point?

21 MR. KAPPEL: Yes.

22 (The witness further reviewed Exhibit 1003.)

23 THE WITNESS: In the section marked "IMAGE
24 GUIDED KNEE REPLACEMENT," he does not appear to
25 mention how the blocks are secured.

1 JAY D. MABREY, M.D.

2 BY MR. KAPPEL:

3 Q. Let's go back to the "COMPUTER INTEGRATED
4 INSTRUMENTS FOR KNEE REPLACEMENT." In that section,
5 does it describe how cutting blocks are secured to the
6 femur?

7 A. He does not describe a mechanism for securing
8 the jig to the bone.

9 Q. Okay. Does the Delp article discuss the size
10 of the cutting guides?

11 MR. OYLOE: Objection to form.

12 THE WITNESS: I don't see any references to
13 the size of the cutting block in the paper.

14 BY MR. KAPPEL:

15 Q. Does it discuss the size of the cutting
16 surface of the cutting guide?

17 MR. OYLOE: Objection to form.

18 THE WITNESS: And I don't see references to
19 the size of the cutting surface.

20 MR. KAPPEL: Okay. Let's go off the record
21 for one second.

22 THE VIDEOGRAPHER: Off the record at 11:57.

23 (A recess was taken from 11:57 a.m.
24 to 1:00 p.m.)

25 THE VIDEOGRAPHER: We're back on the record

1 JAY D. MABREY, M.D.

2 at 1:00 o'clock.

3 BY MR. KAPPEL:

4 Q. I'd like to refer you to Exhibit 1008, which
5 is the Turner article as you refer in your report.
6 Now, this is -- the Exhibit 1008 is the article that
7 you referred to in your report at Paragraph 55 as
8 "Turner"; is that correct?

9 A. Yes.

10 Q. Okay. Turner has a publication dated 1980;
11 is that correct?

12 A. Copyright 1980.

13 Q. So Turner has published about 18 years
14 earlier than the Delp article and about 20 years
15 earlier than the Stulberg article?

16 A. Yes. Yes.

17 Q. Now, turning to Paragraph 68 and 69 of your
18 declaration, you refer to Figures 3 and 8 from the
19 Turner article; is that correct? Page 36.

20 A. Yes.

21 Q. Figures 3 and 8 of Turner relate to a type of
22 knee replacement procedure referred to in Turner as
23 "geometric total knee replacement"; is that correct?

24 A. Yes.

25 Q. I'd like to refer you to Page 174 of Turner,

1 JAY D. MABREY, M.D.

2 and the first full paragraph on that page. Now,
3 described in that paragraph, as I understand, the
4 geometric knee was designed so that both the femoral
5 and tibial components have bearing surfaces whose
6 contours are segments of a sphere"; is that correct?

7 A. Yes.

8 Q. And in the human body, do the bearing
9 surfaces of the tibia and femoral -- femur, are they
10 in the shape of a sphere?

11 MR. OYLOE: Objection to form.

12 THE WITNESS: Which portion of the joint
13 surfaces are you referring to?

14 BY MR. KAPPEL:

15 Q. Well, you know, let's continue. They list
16 four factors in that paragraph -- first paragraph of
17 Page 174 that influences -- "influencing the decision
18 to use spherical surfaces." Do you see that?

19 A. Yes.

20 Q. Okay. I'd like to refer you to the fourth
21 factor, which reads, "although stability in flexion
22 may be sacrificed somewhat with spherical surfaces,
23 the requirements for stability and flexion are not
24 nearly as significant functionally as are the
25 requirements for stability at or near full extension."

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Do you see that statement?

A. Yes.

Q. Do you agree with that statement?

A. I agree that stability and extension takes precedence over stability and flexion, but I would not discount stability and flexion.

Q. Now, Paragraph 69 of your report and the drawing below it, you state that "Turner has a guide surface length (D1) that is substantially less transverse (across the knee) length (D2) of the implant." Do you see that?

A. Yes, I do.

MR. KAPPEL: Okay. I'd like to mark as Exhibit BSI 2001 a copy of Pages 180 and 181 of Turner.

(Deposition Exhibit 2001 was marked for identification.)

BY MR. KAPPEL:

Q. Referring again back to your Paragraph 69 on your declaration, am I correct that the guide surface length D1 that you're referring to is the short side of the cutting guide in Figure 8?

A. Yes. The guide cutting surface is the shorter of the two black lines in that Figure 8.

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2 Q. What I'd like you to do, just so it's clear,
3 could you just draw an arrow on Exhibit BSI 2001 for
4 what surface you contend is -- you're referring to as
5 the "guide surface"?

6 A. (Witness complies.)

7 Q. Does the Turner article attribute any
8 significance to the size of that guide surface?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: Could you clarify
11 "significance"?

12 BY MR. KAPPEL:

13 Q. Does the Turner article state anywhere that
14 the size of that guide surface is advantageous?

15 MR. OYLOE: Objection to form.

16 THE WITNESS: Nothing in the text refers to
17 advantages or disadvantages of the size of the
18 implant.

19 REPORTER MARTIN: The size of the implant?

20 THE WITNESS: Implant. I'm sorry.

21 BY MR. KAPPEL:

22 Q. Now, as you read Turner, is that cutting
23 guide in the shape of a rectangle?

24 MR. OYLOE: Objection to form.

25 THE WITNESS: Which portion of the device are

1 JAY D. MABREY, M.D.

2 you referring to?

3 BY MR. KAPPEL:

4 Q. I'm referring to the entirety of the cutting
5 guide.

6 A. The guide surface over which the oscillating
7 saw is directed is rectangular.

8 Q. And does the cutting guide extend lengthwise
9 along the femur perpendicular to the guide surface?

10 A. The extension attached to the guide surface
11 is not at a 90-degree angle. It's more of a -- I
12 believe the author says it's at a 30 degree angle.

13 Q. Why don't you just draw on that BSI 2001
14 where you see a 30 degree angle.

15 A. (Witness complies.)

16 Q. Okay. And the remainder -- do you see in
17 Figure 8 a portion of the femoral cutting guide which
18 extends lengthwise along the femur?

19 A. Yes.

20 Q. Okay. Could you label that for me.

21 MR. OYLOE: Objection to form.

22 THE WITNESS: (Witness complies.)

23 (Pause in proceedings.)

24 MR. OYLOE: Can you just read into the record
25 what it's been labeled as, or can you ask him to do

1 JAY D. MABREY, M.D.

2 it.

3 BY MR. KAPPEL:

4 Q. Read what you've labeled it as.

5 A. "Guide extension," delineating the horizontal
6 piece of the device.

7 Q. And is there another horizontal piece of the
8 cutting guide opposite to what you've labeled "guide
9 extension"?

10 MR. OYLOE: Objection to form.

11 THE WITNESS: I don't understand.

12 BY MR. KAPPEL:

13 Q. I guess what I'm getting at is as you read
14 Turner, is the femoral cutting guide shown there in
15 the shape of an "L," for lack of a better word, or is
16 it a completed -- I'm searching for the shape.
17 Trapezoid or polygon?

18 MR. OYLOE: Objection to form.

19 THE WITNESS: I'm still not sure which
20 portion of the device you're referring to.

21 BY MR. KAPPEL:

22 Q. Okay. We've discussed what you call the
23 guide surface --

24 A. Yes.

25 Q. -- and the guide extension?

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A. Yes.

Q. Are there any other sides to the femoral cutting guide shown on Figure 8?

A. There's the side opposite the guide surface.

Q. Correct. So you agree that there's a side opposite the guide surface?

A. By "opposite" I mean on the other side of where that cutting surface is.

Q. Thank you. Now, on Page 181, it would be, I guess, the first full paragraph, it states, that "The femoral cutting guide is inserted in the midline, deep to the suprapatellar pouch." Do you see that?

A. Yes.

Q. Okay. And so the -- what you referred to as "the surface opposite the guide extension" rests in the midline; is that correct?

MR. OYLOE: Objection.

THE WITNESS: May I clarify my previous answer?

BY MR. KAPPEL:

Q. Yes.

A. There are two components to this guide. One is resting on the femur, and the other is the cutting surface. When you asked me if there were another

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2 surface opposite to the guide surface, my reference
3 was to, if this is the guide surface, there is another
4 surface here. There's also another portion of the
5 device that is attached at an angle (Indicating) --

6 Q. Okay.

7 A. -- which I referred to as the guide
8 extension.

9 Q. Now, when using this femoral cutting guide on
10 Figure 8, does the surgeon simply hold it in place
11 while he cuts the femur?

12 MR. OYLOE: Objection to form.

13 THE WITNESS: Turner makes no mention of the
14 manner in which it's secured to the femur.

15 BY MR. KAPPEL:

16 Q. In fact, it doesn't say that it's secured to
17 the femur at all, does it?

18 MR. OYLOE: Objection to form.

19 THE WITNESS: It doesn't describe any
20 technique for attaching it to the femur.

21 BY MR. KAPPEL:

22 Q. It doesn't show any structure which would
23 fasten that cutting guide to the femur; is that
24 correct?

25 MR. OYLOE: Objection to form.

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2 THE WITNESS: I don't see any design
3 attributes in this drawing that would indicate any
4 attachment points.

5 BY MR. KAPPEL:

6 Q. And does what you first show as guide
7 extension provide an extramedullary alignment for the
8 cutting surface in the cutting guide of Figure 8?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: Yes. It is external to the
11 intramedullary canal of the femur in this drawing.

12 BY MR. KAPPEL:

13 Q. Okay. Now, referring again to Page 181 of
14 Exhibit 1008, does Figure 9 show the appearance of the
15 femur after being cut with the cutting guide at
16 Figure 8?

17 A. Figure 9 is the appearance of the femur after
18 the cutting of the distal condyles.

19 Q. And would you cut the distal condyles with
20 the femoral cutting guide of Figure 8?

21 A. Yes, as described in the technique.

22 Q. Okay. Is that cut that's shown in Figure 9
23 perpendicular to the mechanical axis of the femur?

24 A. That cut is not perpendicular to the
25 mechanical axis of the femur.

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2 Q. And was that an attribute of the geometric
3 knee?

4 MR. OYLOE: Objection to form.

5 THE WITNESS: Clarify again, please.

6 BY MR. KAPPEL:

7 Q. Previously -- I'll withdraw that question.

8 Previously, in discussing the distal cut with
9 reference to Stulberg, I believe you said the distal
10 cut was perpendicular to the mechanical axis of the
11 femur; is that correct?

12 A. For that system and for that particular
13 design of implant, yes.

14 Q. Okay. So this cutting guide shown in
15 Figure 8 would not make the correct cut for -- distal
16 cut for the system of Stulberg, would it?

17 MR. OYLOE: Objection to form.
18 Mischaracterizes the document.

19 THE WITNESS: Cutting guide depicted in
20 Figure 8 is designed for the geometric knee implant.
21 When used properly, the cutting guide makes two angles
22 of cuts. First, along the anatomic axis of the femur
23 based upon the alignment of the guide extension, and
24 at a 30 degree angle to the long axis of the femur.

25 MR. KAPPEL: I'm going to hand you what's

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been previously marked as Exhibit S&N 1009.

(Previously marked Exhibit 1009.)

(The witness reviewed Exhibit 1009.)

BY MR. KAPPEL:

Q. Is Exhibit 1009 a copy of the Scorpio publication discussed in your report at Paragraph 56? It's on Page 28.

A. Yes.

Q. And in Paragraph 70 of your report I see that you include Figure 15 from the Scorpio publication at the left of Page 37.

A. Yes.

Q. And is Figure 15 depicting what's referred to in Scorpio as "the Anterior Resection Guide"?

A. Yes.

Q. Have you ever worked with the Scorpio anterior resection guide depicted in Figure 15?

A. I'm having to go back several years, and I've seen many, many of these. I believe I may have worked with it in a demonstration lab.

Q. Okay. Just so I'll save myself time, I take it from that answer that you don't recall any details of this particular anterior resection guide other than whatever you can read in this document?

1 JAY D. MABREY, M.D.

2 MR. OYLOE: Objection to form.

3 THE WITNESS: I don't recall any details of
4 my past history with the guide. I just want to be
5 concise.

6 BY MR. KAPPEL:

7 Q. And do Figure 15 and Figure 14 of Scorpio
8 show the anterior resection guide secured to the femur
9 with an intramedullary alignment rod? Is that
10 correct?

11 A. Correct.

12 Q. Figure -- do you believe that Figure 15 shows
13 only one side of the anterior resection guide?

14 A. Could you clarify, please.

15 Q. Yeah, let me give you some proposed
16 definitions, perspectives so it will be easier for you
17 to answer my questions. Referring to Figure 14, I
18 would refer to the guide, when viewed from -- let me
19 try this again.

20 The anterior resection guide is secured to
21 the femur; correct?

22 A. Yes.

23 Q. Okay. And if you were working with this
24 guide, there would be a side of the guide that would
25 face you, the physician, and there would be another

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2 side which would be facing the femur.

3 A. Okay.

4 Q. Okay. So and my question is what I'd like to
5 do is refer to that side, the side facing the femur,
6 as the bone side of the anterior resection guide
7 unless you have a real technical term I can use.

8 A. Okay. So you are referring to the -- if I
9 may clarify, you're referring to the vertically
10 oriented surface opposite the vertically oriented
11 surface that is depicted in Figure 15 of --

12 Q. Correct.

13 A. -- the cutting guide?

14 Q. Yes.

15 A. Yes. Okay. Got it.

16 Q. So using my terminology, Figure 15 would be
17 showing the cutting from the physician side?

18 A. Correct.

19 Q. And Figure 14 is, I guess, a perspective view
20 also from the physician side?

21 A. Yes.

22 Q. However, would you agree that there's no
23 figure in Scorpio that shows the anterior resection
24 guide from the bone side?

25 MR. OYLOE: Objection to form.

1 JAY D. MABREY, M.D.

2 THE WITNESS: Figures 14, 16, 17, 19 do show
3 aspects of the more proximal vertical face of the
4 resection guide. In Figure 14 there is evidence of
5 the cutting slot visible to the far right of the
6 curved portion of the cutting guide.

7 In Figure 16 the entire surface of the more
8 proximal cutting surface -- or cutting guide, not the
9 cutting surface, is visible, as is an indication of
10 the cutting slot, and one may draw a line through that
11 slot and it should intersect with the depth gauge as
12 depicted in Figure 16.

13 BY MR. KAPPEL:

14 Q. You don't see a figure that would be the
15 opposite of Figure 15, showing directly the view from
16 the bone side?

17 A. There is no figure showing that.

18 Q. Okay. Now, turning back to your declaration
19 at Page 37, you identify, as Reference D1, what you
20 refer to as the "guide surface length"; is that
21 correct?

22 A. Correct.

23 Q. And I note that you don't include the slot --
24 the depiction of the slot on the left as part of the
25 guide surface length; is that correct?

1 JAY D. MABREY, M.D.

2 A. Correct.

3 Q. And is that because there is discontinuity in
4 the center between the slot shown on the right
5 depicted as D1 and the slot portion on left which you
6 do not include as part of the D1?

7 MR. OYLOE: Objection to form.

8 THE WITNESS: There are two components to
9 your question. Can you break it up for me, please.

10 BY MR. KAPPEL:

11 Q. Let me ask this: Why did you not include the
12 portion of the slot on the left as part of D1?

13 A. The anterior resection guide, as depicted
14 here, is designed for both right and left knee
15 replacements. The resection guide that you see on the
16 left would be used on a right knee. The resection
17 guide that you see on the right is being used on a
18 left knee. The resection guide on the left is
19 superfluous in this case.

20 Q. Do you know when the slot shown on the left
21 connects to the slot shown on the right?

22 A. The slot does not connect to the slot on the
23 right.

24 Q. Okay. And you base that from the view in
25 Figures 14 and 15; correct?

1 JAY D. MABREY, M.D.

2 A. 14, 15, 17, and 18.

3 Q. It's interesting you didn't mention 16. Why
4 is that?

5 A. Let me go back. Schematically, Figure 16 is
6 wrong.

7 Q. Figure 16 shows passage straight through,
8 doesn't it?

9 A. That is incorrect based on the design
10 depicted in 14 and 15, which clearly show metal
11 separating the two slots.

12 Q. Do you know if that metal goes all the way
13 through to the bone side of that guide?

14 MR. OYLOE: Objection to form.

15 THE WITNESS: I don't have any images
16 depicting that.

17 BY MR. KAPPEL:

18 Q. That's right. There's no images showing the
19 cutting guide from the perspective of the bone side?

20 MR. OYLOE: Objection to form.

21 MR. KAPPEL: I'd like to now refer you to
22 Exhibit 1001, which is the '896 patent. In
23 particular, I would like to draw your attention to
24 Figure 13 of Exhibit 1001.

25 Q. Do you see that? Keep that page. I'd also

1 JAY D. MABREY, M.D.

2 like you to take a look at Column 20 and Lines 10 to,
3 let's say the end of the page. Just take a minute to
4 read through that. I'm going to have a few questions
5 on that.

6 A. I'm sorry. 10 all the way down to the --

7 Q. You can actually stop at 61. But as I said,
8 as always, you're free to read as much as you'd like.

9 (The witness reviewed Exhibit 1001.)

10 THE WITNESS: Okay.

11 BY MR. KAPPEL:

12 Q. Figure 11 -- let's go back to Figure 11.
13 Figure 11 shows the cutting guide from the perspective
14 of the physician side that we discussed previously
15 with Scorpio; is that correct?

16 A. Correct.

17 Q. And Figure 13 is showing a cross-section view
18 from above; is that correct?

19 A. Correct.

20 Q. And referring again to page -- Column 20 --

21 A. Column 20?

22 Q. Column 20. Beginning, for example, on
23 Lines 15, they refer to the guide surface as reference
24 No. 178. Do you see that?

25 A. Yes.

1 JAY D. MABREY, M.D.

2 Q. And that guide surface, 178, extends all the
3 way down to the bottom most portion, when viewed on
4 this page of the cutting guide. Do you see that?

5 MR. OYLOE: Objection to form.

6 THE WITNESS: Could you state that again.
7 I'm sorry.

8 BY MR. KAPPEL:

9 Q. The guide surface, 178, as depicted, goes
10 from the top when viewed in the respective of this
11 drawing of the cutting guide, to the bottom of the
12 cutting guide, which is what's referred to there as, I
13 believe it's 138. Let me double-check to make sure.
14 Yes. The resection guide 138.

15 MR. OYLOE: Objection to form.

16 THE WITNESS: There is a small area at what
17 you would call the top and what I would call the
18 most -- the prospect of it.

19 BY MR. KAPPEL:

20 Q. At the bottom -- can we agree that the
21 cutting -- the guide surface extends all the way to
22 the bottom of Component 138?

23 A. Yes.

24 MR. OYLOE: Objection to form.

25 BY MR. KAPPEL:

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2 Q. Returning back to Figure 11, when viewed from
3 this perspective of Figure 11, it appears -- I'm
4 sorry. Let me withdraw that question.

5 When viewed from the perspective of
6 Figure 11, the guide surface 178 is only visible
7 extending about 70 percent across the cutting guide
8 138; is that correct?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: I haven't made any measurements
11 of it, but I will agree it extends more than halfway
12 across.

13 BY MR. KAPPEL:

14 Q. But not all the way across; correct?

15 A. But not all the way across.

16 Q. And, yet, as shown in Figure 13, the guide
17 surface 178 in fact does extend all the way across.
18 Isn't that correct?

19 MR. OYLOE: Objection to form.

20 THE WITNESS: The guide surface extends the
21 width of the cutting guide.

22 BY MR. KAPPEL:

23 Q. Okay. Would you agree that the reason it
24 appears in Figure 11 that the cutting surface does not
25 extend across the full width of the cutting guide is

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2 because the -- let me rephrase that.

3 Referring to Figure 13, do you see the
4 triangular shaped portion of Component 138 which has
5 got striped lines in it?

6 A. Yes.

7 Q. And is that -- now, on the -- the right face
8 view, with respect to the page, of that triangle
9 corresponds to the front face of Figure 11 of the
10 cutting guide 138; correct?

11 A. You're referring to the entire side of 138?

12 Q. The right side.

13 A. Which is furthest away from the bone depicted
14 in the drawing.

15 Q. Right.

16 A. Yes. That would correspond to the front face
17 as seen in Figure 1.

18 Q. Okay. Would you agree that if Scorpio had a
19 similar construction, that the guide surface of
20 Scorpio would be continuous --

21 MR. OYLOE: Objection to form.

22 BY MR. KAPPEL:

23 Q. -- across the width of Scorpio and the left
24 and right slots would be connected?

25 MR. OYLOE: Objection to form.

1 JAY D. MABREY, M.D.

2 Mischaracterizes the document.

3 THE WITNESS: Based on the diagrams presented
4 in Scorpio, I can't tell.

5 BY MR. KAPPEL:

6 Q. You can't tell. But it's possible that
7 that's how it is?

8 MR. OYLOE: Objection.

9 THE WITNESS: I can't tell based on the
10 images.

11 BY MR. KAPPEL:

12 Q. You can't tell one way or the other; is that
13 correct?

14 MR. OYLOE: Objection to form.

15 BY MR. KAPPEL:

16 Q. You can answer.

17 A. I can't tell one way or the other.

18 Q. Okay. Does Scorpio discuss the relative size
19 of the resection guide to the femur?

20 MR. OYLOE: Objection to form.

21 THE WITNESS: By "discussion" do you mean --

22 BY MR. KAPPEL:

23 Q. Does it describe -- does it -- let me try
24 again. Is there any text in Scorpio that attributes
25 significance to the size of the cutting guide?

1 JAY D. MABREY, M.D.

2 MR. OYLOE: Objection to form.

3 THE WITNESS: By "cutting guide," are you
4 referring to the anterior --

5 BY MR. KAPPEL:

6 Q. Anterior resection.

7 A. Okay.

8 (The witness reviewed the document.)

9 THE WITNESS: As best as I can tell, there is
10 no text describing relative size.

11 BY MR. KAPPEL:

12 Q. Okay. And other than the figures that you
13 reference in your report, is there any discussion in
14 Scorpio of the shape of what you refer to as "the
15 guide surfaces"?

16 MR. OYLOE: Objection to form.

17 THE WITNESS: I don't see any references to
18 that.

19 MR. KAPPEL: Okay. Let's take a 10-minute
20 break.

21 MR. OYLOE: Okay.

22 THE VIDEOGRAPHER: Off the record at 1:53.

23 (A recess was taken from 1:53 p.m.
24 to 2:11 p.m.)

25 THE VIDEOGRAPHER: Here begins Tape 3 in the

1 JAY D. MABREY, M.D.

2 videotaped deposition of Jay Mabrey. We're back on
3 the record at 2:11.

4 BY MR. KAPPEL:

5 Q. I believe you're referring, again, to
6 Exhibit 1009. And, in particular, we were discussing
7 the anterior resection guide, which was Figure 15,
8 among others.

9 Would you agree that the dimensions of the
10 cutting surface of the anterior resection guide of
11 Scorpio are fixed?

12 MR. OYLOE: Objection to form.

13 THE WITNESS: Fixed in dimension?

14 BY MR. KAPPEL:

15 Q. Yes.

16 A. Yes.

17 Q. They're not -- you see no way for a surgeon
18 to adjust the size of the cutting surfaces in the
19 anterior resection guide of Scorpio?

20 MR. OYLOE: Objection to form.

21 THE WITNESS: Correct.

22 MR. KAPPEL: That's all I have for now.

23 MR. OYLOE: All right. We need like 5 or 10
24 minutes just to confirm we have all our notes. We may
25 have some questions.

1 JAY D. MABREY, M.D.

2 MR. KAPPEL: I may recross.

3 MR. OYLOE: That's fine.

4 THE VIDEOGRAPHER: Off the record at 2:13.

5 (A recess was taken from 2:13 p.m.

6 to 2:22 p.m.)

7 THE VIDEOGRAPHER: We're back on the record

8 at 2:22.

9

10 EXAMINATION

11 BY MR. OYLOE:

12 Q. Good afternoon, Dr. Mabrey. I want to point
13 your attention to Exhibit Smith & Nephew 1005,
14 S&N 1005. It's the Stulberg reference. If you could,
15 turn to Figure 12. It's on Page 33.

16 Do you recall you were asked a number of
17 questions about Figure 12 by Bonutti's counsel?

18 A. Yes.

19 Q. And you were asked about which procedure --
20 you were not asked about which procedure, femoral or
21 tibial, Figure 12 shows; right?

22 A. Correct.

23 Q. Which is it?

24 A. This is the tibial procedure.

25 Q. All right. And you were also asked a number

JAY D. MABREY, M.D.

of questions in Stulberg about whether or not it discloses something regarding the sizes of the cutting guides. Do you recall --

A. Yes.

Q. -- that testimony?

A. Yes.

Q. Now, are there -- is it shown in here the size of the cutting guides?

A. Figure 17.

Q. So Figure 17?

A. 17A and B.

Q. And how does it show the size of that cutting guide?

A. It shows it to be what appears to be less than the width of the distal femur.

Q. And, additionally, you were asked a question about whether Stulberg discloses anything about the size of the cutting -- the guide surfaces.

A. Correct.

Q. And you -- does it show anything about the size of the guide surfaces?

A. The guide surfaces are actually even narrower than the guide itself.

Q. And where does it show that?

1 JAY D. MABREY, M.D.

2 A. Again, in Figure 17A and B.

3 Q. All right. You can set Stulberg aside. You
4 were asked a number of questions about the size of the
5 cutting guides disclosed in Delp, or discussed in
6 Delp. Do you recall that testimony?

7 A. Yes.

8 Q. Are -- is the size of the cutting guides
9 shown anywhere in Delp?

10 A. Yes.

11 Q. Where is that?

12 A. Figure 2, lower right quadrant.

13 Q. Could you describe that for me.

14 A. That is a computer image of the distal femur
15 and proximal tibia. There is a vertical line which
16 depicts the mechanical axis of that extremity, and
17 there is a cutting block displayed on the screen,
18 which is held at an oblique angle to the viewing
19 surface. That cutting block has two separate cutting
20 slots in it.

21 Q. And so, again, the same question as before.
22 You were asked whether there's any discussion of the
23 size of the cutting surfaces. Are the size of the
24 cutting surfaces shown here?

25 A. Yes, they are.

1 JAY D. MABREY, M.D.

2 Q. And how are they shown?

3 A. They are shown to be on the left and right
4 sides of the cutting block, separated by a metal
5 interface.

6 Q. And you're referring to Figure 2?

7 A. In Figure 2.

8 Q. All right. Thank you. You can set that
9 aside.

10 If you could turn to S&N 1009. That's
11 Scorpio, the reference you've been testifying about
12 today?

13 A. Yes.

14 Q. Again, I think you were asked the question
15 about whether Scorpio discusses or describes the size
16 of the cutting guide anywhere in the text. Do you
17 recall that testimony?

18 A. Yes.

19 Q. Does the Scorpio reference, Smith & Nephew
20 1009, show the size of the cutting guide anywhere in
21 the document?

22 A. Yes, it does.

23 Q. And where is that?

24 A. That would be in Figures 14, 15, 17, 18.

25 Q. And how is the size shown in those figures?

JAY D. MABREY, M.D.

A. The width of the cutting surface of the medial cutting guide is less than the width of the distal femur.

Q. And if you look at Figure 15, you're referring to the distal femur that's behind the guide; is that correct?

A. Yes.

Q. And the same -- let me -- you said that the cutting surface is less than the distal femur. Is the size of the cutting guide also shown?

A. That portion of the cutting guide that encompasses that cutting surface is less than the width of the distal femur.

Q. Okay. Thank you. All right. Now, you were asked a number of questions related to the relationship of the '896 patent and the Scorpio Smith & Nephew 1009 reference. Do you recall that?

A. Yes.

Q. You were asked by counsel to assume that the bone side of Figure -- Scorpio Figure 15 had the same structure as Figures 11 and 13 in the '896 patent. Do you recall that?

A. Yes.

Q. Did the '896 patent exist at the time the

JAY D. MABREY, M.D.

Scorpio reference was published?

A. No.

Q. So setting aside that assumption that counsel provided you, I'd like to ask you about what a person of ordinary skill would understand reading the Scorpio reference before the '896. Do you have that in mind?

A. Yes.

Q. All right. So looking at Figures 14, 15, 17, and 18 of Scorpio and focusing on the metal piece between the two separate guide surfaces, please tell us whether or not a person of ordinary skill in the art would understand that metal piece to be a solid divider between the guide surfaces.

A. Someone normally skilled in the art of knee replacement would assume that that metal went all the way through to the other side.

Q. And so they would understand that that solid piece divides the two guide surfaces?

A. Yes.

Q. All right. Can you tell us whether or not a person of ordinary skill would understand that divider to extend completely through the guide from front to back?

A. I'm sorry. That the cutting surface or that

JAY D. MABREY, M.D.

the --

Q. Let me ask the question again. Looking at Figure 15, for example -- or Figure 14, for example.

A. Okay.

Q. Do you see that -- the metal portion we're discussing in the figure there?

A. Yes.

Q. And that's the portion between the two guide slots; correct?

A. Correct.

Q. Okay. So I'm talking about that portion.

A. Okay.

Q. Can you tell us whether or not a person of ordinary skill would understand that divider to extend completely through the guide from the front side to the bone side?

A. Person of ordinary skill would assume that it would extend all the way from the front to the back.

Q. And would it have been obvious or not obvious to construct the guide that way?

A. It would be obvious to construct the guide that way for structural purposes.

Q. And what do you mean by that?

A. This is the -- basically, the central portion

1 JAY D. MABREY, M.D.

2 of the cutting guide, and to take away metal at this
3 point puts undue stress in that area. Most engineers
4 would simply bring the metal all the way through to
5 the other side. Also, in manufacturing the guide, it
6 also would make more sense and make it more facile to
7 leave that metal extended all the way to the back side
8 of the cutting guide.

9 MR. OYLOE: Nothing further.

10 MR. KAPPEL: Okay. I have a few questions.

11
12 FURTHER EXAMINATION

13 BY MR. KAPPEL:

14 Q. During the break, did you discuss your
15 testimony with counsel?

16 A. In what way?

17 Q. Did you have any discussion regarding the
18 testimony that you had in this proceeding with counsel
19 during the break?

20 A. The testimony, no.

21 Q. Did you have discussions with counsel during
22 the break regarding the prior art?

23 MR. OYLOE: Objection to form.

24 BY MR. KAPPEL:

25 Q. Did you have discussion -- did you speak with

1 JAY D. MABREY, M.D.

2 counsel during the break?

3 A. I did.

4 Q. Okay. And did you speak with counsel
5 regarding the Scorpio reference during the break?

6 A. In terms of my understanding of --

7 Q. At all. Did you have any discussion
8 regarding the Scorpio reference during the break?

9 A. I was asked a series of questions. I gave
10 them my answers. Those are the exact same answers
11 that I gave here.

12 MR. KAPPEL: Okay. I'm going to continue,
13 but I'm going to move to strike the entire redirect as
14 a violation of the rules.

15 Q. Did you discuss the Stulberg reference at all
16 during your break with counsel?

17 A. Only to the effect that I had already
18 identified that as a tibia.

19 Q. Did they ask you questions -- you had
20 discussions regarding the reference?

21 A. They asked me a question. I answered it,
22 just as I answered it here.

23 Q. Okay. Now, let's take a look at Exhibit
24 S&N 1003 and Figure 2. Do you see that?

25 A. Yes.

1 JAY D. MABREY, M.D.

2 Q. And this figure is also -- you testified this
3 figure is depicting a cutting guide; is that correct?

4 A. Yes.

5 Q. And similar to our discussion of Scorpio
6 earlier, this is depicting the cutting guide from the
7 perspective of the physician guide; is that correct?

8 A. As the physician is viewing it from the
9 operative side.

10 Q. And you cannot tell from this figure whether
11 that central face which you contend divides two guide
12 surfaces, you cannot tell whether that extends
13 completely to the bone side, can you?

14 A. Yes, I can.

15 MR. OYLOE: Objection to form.

16 BY MR. KAPPEL:

17 Q. You can? I thought you just told us you
18 don't have a view from the bone side.

19 A. I don't need a view from the bone side. This
20 is an oblique depiction of a rectangular object. We
21 are viewing the metal divider piece in an oblique
22 angle, and in that area through the slot there is --
23 if there were -- if the metal part did not extend all
24 the way through, then I would have not expected there
25 to be a light white line extending as far through as I

1 JAY D. MABREY, M.D.

2 would expect to find the other side of the --

3 Q. Well, I would agree that would be true if you
4 were looking directly from the side perspective, but
5 this is a perspective view.

6 A. I disagree.

7 Q. Okay.

8 A. I can see the entire edge of that metal
9 divider from this view because we are looking through
10 the slot.

11 Q. Is this -- can you tell whether that is a
12 photograph of a cutting guide or a computer generated
13 depiction of a cutting guide?

14 MR. OYLOE: Objection to form.

15 BY MR. KAPPEL:

16 Q. You can answer.

17 A. It's a -- that appears to be a computer
18 generated image.

19 Q. Okay. It doesn't show how it's secured, does
20 it?

21 A. Not in this diagram, no.

22 Q. Let's take a look at Stulberg Exhibit
23 S&N 1005. And I'd like to refer you to Figure 16B.

24 A. Okay.

25 Q. Would you agree that that's -- the vertical

1 JAY D. MABREY, M.D.

2 top horizontal face of the cutting block extends
3 beyond the end of the femur?

4 MR. OYLOE: Objection to form.

5 THE WITNESS: I'm sorry. Which portion of --
6 we're in 16B?

7 BY MR. KAPPEL:

8 Q. Uh-huh.

9 A. There is no cutting block in 16B.

10 Q. It says, Figure 16, "The distal femoral
11 cutting block device" begins.

12 A. "Cutting block device." That is half of the
13 actual device. This portion of the device positions
14 the cutting slide.

15 Q. And it's wider than the femur; correct?

16 A. The positioner is, yes.

17 Q. And the second piece of the cutting block
18 device rests on top of that; is that correct?

19 A. Yes.

20 Q. And it is just as wide as that horizontal
21 face of what you refer to as, I think the portion of
22 the device that positions the cutting block?

23 MR. OYLOE: Objection to form.

24 THE WITNESS: The cutting block is
25 substantially narrower than the positioning device.

1 JAY D. MABREY, M.D.

2 That is not a cutting face on the positioning device.

3 MR. KAPPEL: Well, let's take a look at
4 Exhibits -- just one second.

5 (Pause in proceedings.)

6 MR. KAPPEL: I'm going to mark as BSI
7 Exhibit 2002, Page 36 of Stulberg.

8 (Deposition Exhibit 2002 was marked for
9 identification.)

10 BY MR. KAPPEL:

11 Q. Now, is Figure 17A and B showing the top
12 portion of the cutting guide in its -- in the position
13 that it would be located when you're doing the distal
14 cut?

15 A. Yes.

16 MR. OYLOE: Objection to form.

17 By MR. KAPPEL:

18 Q. So it would be raised up above it as shown?

19 A. I'm sorry. Your point?

20 (A discussion was held off the record.)

21 MR. KAPPEL: Let's try it again.

22 Q. In Figure 17A we have what -- we have a
23 portion of the cutting block device which is shown
24 also in Figure 16B. And then there's a second portion
25 which is separated above the lower portion but

1 JAY D. MABREY, M.D.

2 connected as piers with a post. Do you see that?

3 A. Yes.

4 Q. Is Figure 17B showing the upper portion of
5 the cutting device in the position it is in when you
6 make the distal cut?

7 A. Yes.

8 Q. Okay. I'd like you to draw a line -- let me
9 rephrase that for a second.

10 (Pause in proceedings.)

11 BY MR. KAPPEL:

12 Q. I'd like you to -- using a pen, illustrate
13 for me the relative position of the top portion of the
14 cutting guide to the bottom portion of the cutting
15 guide.

16 MR. OYLOE: Objection to form.

17 THE WITNESS: In what way?

18 BY MR. KAPPEL:

19 Q. Well, your testimony, if I understand it, is
20 that the top portion of that cutting guide is narrower
21 widthwise than the bottom portion of the cutting
22 guide. Is that your testimony?

23 MR. OYLOE: Objection. Mischaracterizes.

24 THE WITNESS: Yes.

25 BY MR. KAPPEL:

1 JAY D. MABREY, M.D.

2 Q. Okay. And I just don't see how that is
3 depicted at all in Figure 17A and B. So I was hoping
4 that you could illustrate it for me so I could better
5 understand it.

6 A. I'm including the outriggers as a portion of
7 that position guide.

8 Q. Okay. But that base rectangle in the lower
9 portion, you would agree that -- is that the same size
10 or smaller than the upper cutting guide?

11 A. The base you refer to is not a cutting
12 surface.

13 Q. I didn't say it was. I'm asking you what
14 it -- its size.

15 A. It appears to be relative to the cutting
16 block. Relatively the same.

17 Q. Relatively the same. And looking at Figure
18 16B --

19 A. Sorry.

20 Q. -- back in 1005 --

21 A. Where. 16- --

22 Q. -- on Page 35.

23 A. -- -B. Okay.

24 Q. That bottom piece, that rectangular bottom
25 piece appears to be wider than the femur.

1 JAY D. MABREY, M.D.

2 A. I can't tell from this angle.

3 Q. So you can't tell?

4 MR. OYLOE: Objection to form.

5 BY MR. KAPPEL:

6 Q. Is the reason you can't tell is because it's
7 a perspective view?

8 MR. OYLOE: Objection to form.

9 THE WITNESS: The perspective view throws it
10 off, yes.

11 BY MR. KAPPEL:

12 Q. Okay. I'd like to turn back to Scorpio
13 Exhibit 1009. We agree nothing depicted in the
14 figures of Scorpio indicates whether or not that
15 center portion extends all the way to the bone side
16 surface; is that correct?

17 MR. OYLOE: Objection to form.

18 THE WITNESS: Which device are you referring
19 to again?

20 BY MR. KAPPEL:

21 Q. The anterior resection guide.

22 A. And your question regarding the central
23 portion?

24 Q. There's nothing depicted in Scorpio that
25 would tell you whether or not that central portion

1 JAY D. MABREY, M.D.

2 extends across and flush to the bone side of the
3 cutting guide?

4 MR. OYLOE: Objection to form.

5 THE WITNESS: I don't see any diagrams that
6 would indicate that.

7 BY MR. KAPPEL:

8 Q. You don't know one way or the other, do you?

9 MR. OYLOE: Objection to form.

10 THE WITNESS: I can't tell.

11 BY MR. KAPPEL:

12 Q. Would it be structurally sound if it only
13 went three quarters of the way back towards the bone
14 side?

15 MR. OYLOE: Objection to form.

16 THE WITNESS: Are you asking me in terms of a
17 designer?

18 BY MR. KAPPEL:

19 Q. Well, you testified earlier, I believe, that
20 one of the reasons you thought it would go all the way
21 back was that it would be more structurally sound. So
22 I would like to explore your opinion on that.

23 A. Yes. It would be a stronger, more sound
24 device if that metal went all the way through.

25 Q. But would it still be structurally sound if

1 JAY D. MABREY, M.D.

2 it only went 80 percent across the back?

3 MR. OYLOE: Objection to form.

4 THE WITNESS: There's no way to tell.

5 BY MR. KAPPEL:

6 Q. So you don't know how far back it goes in
7 Scorpio, do you?

8 MR. OYLOE: Objection to form, and assumes
9 facts not in evidence.

10 THE WITNESS: There are no diagrams depicting
11 the other side of the cutting block.

12 MR. KAPPEL: I just need five minutes. I'll
13 let you know if I've got any more.

14 THE VIDEOGRAPHER: Off the record at 2:51.

15 (A recess was taken from 2:51 p.m.
16 to 2:52 p.m.)

17 THE VIDEOGRAPHER: Back on the record at
18 2:52.

19 MR. KAPPEL: Nothing further.

20 MR. OYLOE: We have nothing further either.

21 THE VIDEOGRAPHER: This is the end of Tape 3
22 of the videotaped deposition of Jay Mabrey. This
23 deposition concludes at 2:52.

24 (Witness excused.)

25 (Deposition concluded at 2:52 p.m.)

C E R T I F I C A T E

I do hereby certify that the aforesaid testimony was taken before me, pursuant to notice, at the time and place indicated; that said deponent was by me duly sworn to tell the truth, the whole truth, and nothing but the truth; that the testimony of said deponent was correctly recorded in machine shorthand by me and thereafter transcribed under my supervision with computer-aided transcription; that the deposition is a true and correct record of the testimony given by the witness; and that I am neither of counsel nor kin to any party in said action, nor interested in the outcome thereof.

Nancy J. Martin, RMR, CSR

Dated: May 18, 2014

(The foregoing certification of this transcript does not apply to any reproduction of the same by any means, unless under the direct control and/or supervision of the certifying shorthand reporter.)

INSTRUCTIONS TO WITNESS

Please read your deposition over carefully and make any necessary corrections. You should state the reason in the appropriate space on the errata sheet for any corrections that are made.

After doing so, please sign the errata sheet and date it. You are signing same subject to the changes you have noted on the errata sheet, which will be attached to your deposition. It is imperative that you return the original errata sheet to the deposing attorney within thirty (30) days of receipt of the deposition transcript by you. If you fail to do so, the deposition transcript may be deemed to be accurate and may be used in court.

ACKNOWLEDGMENT OF DEPONENT

I have read the foregoing transcript of my deposition and except for any corrections or changes noted on the errata sheet, I hereby subscribe to the transcript as an accurate record of the statements made by me.

JAY D. MABREY, M.D.

SUBSCRIBED AND SWORN before and to me
this ____ day of _____, 20____.

NOTARY PUBLIC

My Commission expires:

E R R A T A S H E E T

IN RE: SMITH & NEPHEW V. BONUTTI SKELETAL INNOVATIONS

DATE: 5/13/14

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JAY D. MABREY, M.D.

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IN RE: SMITH & NEPHEW V. BONUTTI SKELETAL INNOVATIONS

DATE: 5/13/14

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