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UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NEURENT MEDICAL INC. and :  
NEURENT MEDICAL LTD., :  
Petitioners, : IPR2024-00277  
v. : Patent 11,241,271 B2  
AERIN MEDICAL INC., :  
Patent Owner.

- - - - -x

Deposition of Gregory T. Martin, Ph.D.  
Boston, Massachusetts  
September 25, 2024  
9:05 a.m.

Job No.: 553701  
Pages: 306 - 449  
Reported By: Alan H. Brock, RDR, CRR

1 UNITED STATES PATENT AND TRADEMARK OFFICE  
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD  
3 - - - - -x  
4 NEURENT MEDICAL INC. and :  
5 NEURENT MEDICAL LTD., :  
6 Petitioners, : IPR2024-00278  
7 v. : Patent 11,033,318 B2  
8 AERIN MEDICAL INC., :  
9 Patent Owner.  
10 - - - - -x

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12 Deposition of Gregory T. Martin, Ph.D.  
13 Boston, Massachusetts  
14 September 25, 2024  
15 9:05 a.m.

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20 Job No.: 553701  
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4 NEURENT MEDICAL INC. and :  
5 NEURENT MEDICAL LTD., :  
6 Petitioners, : IPR2024-00282  
7 v. : Patent 11,766,286 B2  
8 AERIN MEDICAL INC., :  
9 Patent Owner.  
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14 September 25, 2024  
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1 UNITED STATES PATENT AND TRADEMARK OFFICE  
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD  
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4 NEURENT MEDICAL INC. and :  
5 NEURENT MEDICAL LTD., :  
6 Petitioners, : IPR2024-00669  
7 v. : Patent 11,679,077 B2  
8 THE FOUNDRY, LLC, :  
9 Patent Owner.  
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12 Deposition of Gregory T. Martin, Ph.D.  
13 Boston, Massachusetts  
14 September 25, 2024  
15 9:05 a.m.

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20 Job No.: 553701  
21 Pages: 306 - 449  
22 Reported By: Alan H. Brock, RDR, CRR

A P P E A R A N C E S

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C O N T E N T S

| EXAMINATION OF GREGORY T. MARTIN, PH.D. | PAGE |
|-----------------------------------------|------|
| Mr. Gilford                             | 313  |
| Mr. Nemtzow                             | 443  |
| Mr. Gilford                             | 446  |

E X H I B I T S

(Attached to transcript.)

| MARTIN DEPOSITION EXHIBITS                                                                               | PAGE |
|----------------------------------------------------------------------------------------------------------|------|
| Exhibit 5 Declaration of Dr. Gregory T. Martin Regarding Claims 1, 4, 8-10 of U.S. Patent No. 11,241,271 | 314  |
| Exhibit 6 Handwritten drawing                                                                            | 336  |
| Exhibit 7 Handwritten drawing                                                                            | 344  |
| Exhibit 8 Handwritten drawing                                                                            | 430  |
| Premarked Exhibits:                                                                                      |      |
| Neurent Exhibit 1001                                                                                     | 318  |
| Neurent Exhibit 1003                                                                                     | 379  |
| Neurent Exhibit 1006                                                                                     | 390  |

1 September 25, 2024 9:05 a.m.

2 P R O C E E D I N G S

3 GREGORY THOMAS MARTIN,

4 being previously duly sworn or affirmed to testify to  
5 the truth, the whole truth, and nothing but the truth,  
6 was examined and testified as follows:

7 CONTINUED EXAMINATION

8 BY MR. GILFORD:

9 Q. Welcome back, Dr. Martin. I hope you had a  
10 great break.

11 Between the close of yesterday's  
12 deposition and the start of today, have you spoken  
13 with anybody about yesterday's deposition?

14 A. No.

15 Q. And between the close of yesterday's  
16 deposition and the start of today's deposition, did  
17 you talk to anybody about today's portion of the  
18 deposition?

19 A. No.

20 Q. Did you speak with anybody about your  
21 anticipated testimony today?

22 A. No.

1 MR. GILFORD: So before we really get  
2 started with questions, let's go ahead and mark the  
3 '271 patent declaration as Martin Exhibit 5.

4 (Exhibit 5 marked for identification.)

5 Q. And Dr. Martin, would you mind pulling up for  
6 me the '271 patent, which should be somewhere in that  
7 pile that you've got. And you've seen this document  
8 before; correct?

9 A. Correct.

10 Q. This is the '271 patent; right?

11 A. Yes.

12 Q. And you've provided opinions on this patent;  
13 is that right?

14 A. Yes.

15 Q. And have you reviewed the '271 patent before?

16 A. I have.

17 Q. Have you read claim 1 of the '271 patent  
18 before?

19 A. Yes, I have.

20 Q. Would you mind flipping to claim 1 of the  
21 '271 patent.

22 A. Sure.

1           Q.    Claim 1 of the '271 patent is a method claim;  
2 correct?

3           A.    Yes.

4           Q.    And the method of claim 1 recites three  
5 method steps; is that right?

6                   MR. NEMTZOW:  Objection, form.

7           A.    Correct, yes.

8           Q.    So let's run through those steps really  
9 quick.

10                   The first step in this method is  
11 contacting a treatment element of a nasal airway  
12 treatment device directly with nasal mucosa of the  
13 nasal airway, wherein the treatment element comprises  
14 two rows of bipolar electrode pairs.  Is that right?

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

16          Q.    And the second step is applying  
17 radiofrequency energy with the bipolar electrode pairs  
18 through the nasal mucosa to a target tissue underlying  
19 the nasal mucosa for an amount of time to heat the  
20 target tissue; is that right?

21                   MR. NEMTZOW:  Objection, form.

22          A.    Yes.

1 Q. And the third step is removing the treatment  
2 element from the nasal airway; is that right?

3 MR. NEMTZOW: Objection, form.

4 A. Yes.

5 Q. Is it your understanding that the three  
6 steps, the three method steps from claim 1 of the '271  
7 patent, are to be performed in order?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. Let me just review my declaration here.

10 I would say in general yes. To apply RF  
11 energy, you have to contact the tissue first, and  
12 obviously removing it --

13 Well, I suppose --

14 No, I think the order makes sense, yeah.

15 Q. At the very least, it makes logical sense to  
16 perform these three steps in order; right?

17 A. Yes.

18 MR. NEMTZOW: Objection, form, relevance.

19 Q. Switching gears a little bit: Claim 1 of the  
20 '318 patent and claim 1 of the '286 patent both recite  
21 the term "multiple radiofrequency output channels."  
22 Right?

1           A.    I don't have it right now in front of me, but  
2           I'll take your word for it.

3           Q.    What do you understand the term  
4           "radiofrequency output channel" to mean in the context  
5           of the '318 and '286 patents?

6                     MR. NEMTZOW:  Objection, form, relevance,  
7           foundation.

8           A.    So you said this was claim 1 in '318?

9           Q.    It's also recited in claim 1 of the '286.

10          A.    I'm sorry, can you repeat the question?

11          Q.    What do you understand the term  
12          "radiofrequency output channel" to mean in the context  
13          of the '318 and '286 patents?

14                     MR. NEMTZOW:  Same objection.

15          A.    Is that terminology in the claims?

16          Q.    The claim says "radiofrequency output  
17          channels," plural.

18          A.    The claim for which patent?

19          Q.    The '318 claim 1 and '286 claim 1 both recite  
20          "radiofrequency output channels."

21                     MR. NEMTZOW:  The same objection.

22          A.    I'm sorry, do you have the '318 patent?

1 Q. Yes. Here you go.

2 A. Thank you.

3 Q. So I'm handing you what was previously marked  
4 Neurent's Exhibit 1001 in the '318 patent IPR. This  
5 is the '318 patent; correct?

6 A. Yes, correct.

7 Yeah, so if you -- so if you look at my  
8 declaration, Paragraph 124, it discusses that.

9 So the '318 patent I think doesn't fully  
10 teach what the output channel is. But if you look at  
11 Stern, Stern figure 15 has a number of output channels  
12 from their device. That's how I interpret "output  
13 channel" to mean: output from a radiofrequency  
14 generator.

15 Q. Okay. So you understand a radiofrequency  
16 output channel to be an output from a radiofrequency  
17 generator; is that correct?

18 MR. NEMTZOW: Objection, form, relevance.

19 A. Yes. Similar to what Stern has in figure 15.

20 Q. Okay. So I guess the term "output" in the  
21 larger phrase "radiofrequency output channel" is  
22 referring to the output from the radiofrequency

1 generator. Is that --

2 A. Correct.

3 MR. NEMTZOW: Objection, form, relevance.

4 A. Yes.

5 Q. And I guess when you were analyzing the '318  
6 and '286 patents, did you apply that understanding to  
7 your analysis?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. Certainly yes to the '318. And I can recheck  
10 my declaration for -- is it '271, did you say?

11 Q. Sorry, '286.

12 A. '286.

13 So yes, so on my '286 declaration, if you  
14 look at Paragraph 135, it discusses that, and it  
15 associates Stern's -- again, Stern's figure 15 with  
16 multiple radiofrequency output channels.

17 Q. So I guess in analyzing the '286 patent, in  
18 your analysis of the term "radiofrequency output  
19 channel," is it fair to say that the meaning you apply  
20 to that term is an output from a radiofrequency  
21 generator?

22 MR. NEMTZOW: Objection, form, foundation,

1 relevance.

2 A. Yes, similar to what is depicted in Stern  
3 figure 15.

4 Q. Would you mind picking back up the '318  
5 declaration and going to Page 65. I'm looking at the  
6 annotated figures near the top.

7 A. Yes.

8 Q. So I think you answered this already, but is  
9 it your opinion that Stern's figure 15 teaches  
10 multiple radiofrequency output channels?

11 MR. NEMTZOW: Objection, form.

12 A. Yes.

13 Q. So in these annotated figures you have at the  
14 top of Page 65 of your '318 declaration, are you using  
15 the orange lines to, I guess, denote what you're  
16 calling the radiofrequency output channel?

17 MR. NEMTZOW: Objection, form.

18 A. So yes and other channels as well. Other  
19 lines also represent radiofrequency output channels.

20 Q. Okay. I think I understand what you're  
21 saying. So I guess on the figure on the left are you  
22 using the orange line to denote one output channel?

1           A.    Well, the orange line -- there are two orange  
2    lines in figure 15 on the left. One denotes one  
3    output channel; the other one denotes another output  
4    channel. Right? So you have two bipolar electrodes.  
5    You need four output channels to run them  
6    independently.

7           Q.    I'm not sure I'm following you. So in your  
8    annotation on the left, if you look up at the text  
9    above it, you say "one pair of bipolar RF electrodes  
10   connected with a respective RF output channel." Do  
11   you see that?

12          A.    Yes.

13          Q.    So at least from that text, it sounds like  
14   you're calling everything you've demarcated in orange  
15   on that left-hand figure a single output channel?

16                MR. NEMTZOW: Objection.

17          Q.    Is that right?

18                MR. NEMTZOW: Objection, form, foundation.

19          A.    I think you could think of it in multiple  
20   ways; right? So if I have -- in the train station,  
21   North Station, there are multiple tracks; right? Even  
22   though those tracks connect somewhere down the line,

1     you still call those multiple tracks. In the same  
2     way, you could consider these multiple channels.

3           Q.    I get what you're saying, but I just want to  
4     focus on what you highlighted in orange, not the other  
5     stuff.

6           A.    Okay.

7           Q.    So is the stuff highlighted in orange on the  
8     left-hand side of Page 65, is that one channel?

9                   MR. NEMTZOW:  Objection, form.

10          A.    So there are two orange lines on the left  
11     side of figure 15; correct?

12          Q.    Yes.

13          A.    So each orange line in my estimation would  
14     represent a separate channel.

15          Q.    Why do you say that?

16          A.    Well, I think, again, "channel" is one of  
17     those words that is -- I'm describing it, I'm not  
18     defining it.

19          Q.    I guess let's turn to Page 66, and I'm  
20     looking at Footnote 4. Do you see where you wrote,  
21     "Edwards '535 and Stern close output channels within  
22     the device itself but also teach RF generators that a

1 person of ordinary skill would understand to have two  
2 ports or connection points for connecting an energy  
3 delivery device and providing the device with active  
4 and return signals." Do you see that?

5 A. Yes.

6 Q. And it goes on. So if you kind of go -- I  
7 guess just looking at that Footnote 4 that you wrote,  
8 what do you mean by "providing the device with active  
9 and return signals"?

10 A. Well, I think you can imagine that as --  
11 that's a positive and negative; right? So active and  
12 return signals, imagine that as being active would be  
13 the positive and return would be the negative.

14 Q. And I think we talked about this a while ago  
15 yesterday, about kind of how the current flows when  
16 you have a generator and bipolar RF electrodes. And I  
17 recall you saying something like the current goes from  
18 the generator to the active electrode, through the  
19 tissue to the return electrode, and then flows back to  
20 the generator. Do you recall testifying along those  
21 lines?

22 MR. NEMTZOW: Objection, form, foundation.

1           A.    Yes.

2           Q.    So in that case, kind of explain, you know,  
3           what's the active signal and what's the return signal  
4           in that kind of loop?

5                   MR. NEMTZOW:  Objection, form, foundation,  
6           relevance.

7           A.    So there are a couple of ways to configure  
8           this.  So the return would be, you can imagine that  
9           being a steady voltage at zero potential; right?  The  
10          active, if it's carrying radiofrequency energy --  
11          right? -- its voltage is varying, actually positive  
12          and minus, at a frequency that's equal to the  
13          frequency of the RF generator.

14          Q.    I guess going back to Page 65:  So just, for  
15          example, on the annotated figure on the left, where is  
16          the active signal coming from?

17          A.    Figure 5 is not clear.

18          Q.    Did I say figure 5?

19          A.    I'm sorry, figure 15 on the left.  It's not  
20          clear.

21          Q.    Okay.  Is it coming from one of the two wires  
22          leading from voltage source 228?

1 A. Yes, it would have to be.

2 Q. And then where is the return signal going to?

3 MR. NEMTZOW: Objection, form, relevance.

4 A. Well, whichever -- so if you look at the  
5 voltage source '228, either one of those could be the  
6 active and the other one could be the return  
7 electrode. So whichever one you choose to be the  
8 active, in order for this to work the other would have  
9 to be the return.

10 Q. Okay, so whichever one's the active, is that  
11 essentially the output of the single?

12 MR. NEMTZOW: Objection, form, relevance.

13 A. Well, I think you can think of them as both  
14 outputs; right?

15 Q. Okay.

16 A. If you're thinking about current flow --  
17 right? -- because it's alternating current. So the  
18 current is going back and forth.

19 Q. So I guess -- just bear with me while I'm  
20 trying to figure this out. So, again, looking at the  
21 left-hand-side figure of Page 65, let's assume for a  
22 second that the active signal is coming from the wire

1 coming from the top of 228.

2 A. Okay.

3 Q. So I guess the way you've drawn this, the  
4 active signal goes to electrode 220; right?

5 MR. NEMTZOW: Objection, form, foundation,  
6 relevance.

7 A. So 228 is the voltage source. You're saying  
8 the top you're calling the active. So that goes  
9 through switch 248; right?

10 Q. So electrode 220; right?

11 A. 220, yes.

12 Q. And then it flows to electrode 222; right?

13 A. For the return, yes.

14 Q. And then the return flows back to voltage  
15 source 228; right?

16 A. Correct, yeah.

17 Q. So isn't that just one channel of  
18 radiofrequency energy?

19 MR. NEMTZOW: Objection, form, foundation,  
20 relevance.

21 A. Well, "channel" is a concept. I mean, you  
22 can reconfigure it; right? You can configure it one

1 way or the other.

2 But yeah. Is it one channel?

3 So "channel" is defined relative to the RF  
4 generator.

5 Q. Okay.

6 A. Not relative to the device, typically.

7 Q. Either way, the current is flowing through  
8 only one channel in this scenario; right?

9 MR. NEMTZOW: Objection, form.

10 A. At this point in time, for this example.

11 Q. But even if you switch the way the active  
12 was -- the active signal was coming out of the  
13 generator, it's still flowing through only one  
14 channel; right, just the opposite direction?

15 MR. NEMTZOW: Objection, form.

16 A. Well, if you threw two more switches, you  
17 would get it to flow through the other two.

18 Q. I totally understand. We're just talking  
19 about the way you annotated on the left.

20 A. Yep.

21 Q. So I want to just talk about this  
22 left-hand-side figure, and then we can go from there.

1                   So again, the way you drew the  
2 left-hand-side figure presumably is with switch 248  
3 closed and switch 238 closed?

4           A.     Correct.

5           Q.     So just taking that example.

6           A.     Yeah.

7           Q.     Regardless of which way the active signal is  
8 coming from the voltage source '228, there's only one  
9 radiofrequency output channel in this annotation;  
10 correct?

11                   MR. NEMTZOW: Objection, form, foundation,  
12 relevance.

13           A.     I would rather characterize it by saying  
14 there's only one -- there's multiple channels; right?  
15 There's only one channel active.

16           Q.     I think I understand what you mean. So  
17 let's -- I understand you think there could be other  
18 channels, for example, what you depict on the right.  
19 Is that fair to say?

20           A.     So if I built 15, if I built that, what we  
21 would see here is a device, let's say, with multiple  
22 switches -- right? -- and multiple outputs.

1           And so if I plugged this bipolar -- these  
2   two bipolar electrode pairs, you would see them  
3   plugged into the generator on two separate channels.  
4   One channel might be inactive while the other  
5   channel's active.

6           Q.    I think I know what you mean, but I just --  
7   I'm struggling with, you know -- I get that you're  
8   saying there's multiple channels; right? But I'm  
9   trying to just narrow in on what's shown in orange.

10          A.    Yeah.

11          Q.    If you follow this line shown in orange --

12          A.    Uh-huh.

13          Q.    -- that line shown in orange --

14                I get that it comes out of two sides of  
15   the voltage source. But if you follow the line shown  
16   in orange, that shows one radiofrequency output  
17   channel; right?

18               MR. NEMTZOW: Objection, form, foundation,  
19   relevance.

20          A.    I think you're confusing the concept of a  
21   channel with a connection. I interpret "channel" to  
22   be associated with the generator. So it doesn't

1 matter what it's connected to or what it's not  
2 connected to. That generator still has however many  
3 channels it has.

4 Q. Are you defining this entire figure 15 as the  
5 generator?

6 A. Well, the part that's not in the dotted  
7 line -- do you see on the left-hand side the dotted  
8 square?

9 Q. Uh-huh.

10 A. Okay. I interpret that to be what's in the  
11 dotted square encompasses the electrodes that contact  
12 the tissue, which is in the nose; right? The rest of  
13 the electronics are not in the nose. The voltage  
14 source is not in the nose; right? Those switches are  
15 not in the nose. Those are all external to the  
16 patient.

17 Q. Are you saying everything else is the  
18 generator?

19 A. Well, if we want to look at one -- was it  
20 230, the oval shape -- right? -- Stern describes that  
21 as being possibly like a grounding pad, a return. So  
22 that would not be in the nose.

1           Q.     Right.  So my question was:  Are you  
2     saying -- is your testimony today that everything  
3     outside of the dotted rectangle in figure 15 is the  
4     generator?

5                     MR. NEMTZOW:  Objection, form, relevance.

6           A.     That, excepting the oval, that's my  
7     interpretation of Stern, that you build that device  
8     putting the switches and the voltage source in the  
9     generator.

10                    Now, you could in theory build it with  
11    switches in the disposable; right?  In the device that  
12    goes to the nose.  You probably wouldn't do it that  
13    way, but it's theoretically possible to put the  
14    switches in the device.

15           Q.     Can you point me to where in your declaration  
16    you say that everything outside of the dotted  
17    rectangle in figure 15 except for the grounding pad  
18    230 is in the generator?

19                    MR. NEMTZOW:  Objection, form, relevance.

20           A.     Well, I don't know if I explicitly state that  
21    in my declaration, and I could look for it.  But I  
22    think a person skilled in the art would understand

1 that straight away reading Stern.

2 Q. So first of all, I would like you to point me  
3 to where in your declaration you said that everything  
4 outside of the dotted rectangle in figure 15 except  
5 for the grounding pad 230 is part of the generator.

6 MR. NEMTZOW: Objection, form, foundation,  
7 relevance.

8 A. Again, I don't think I explicitly state that  
9 in my declaration. But again, a person skilled in the  
10 art in this field would recognize those elements to be  
11 in the RF generator.

12 Q. And other than saying that you just  
13 understand that to be the understanding of a person of  
14 ordinary skill in the art, what is your basis for  
15 saying that everything outside of the dotted rectangle  
16 except for the grounding pad 238 is part of the  
17 generator?

18 MR. NEMTZOW: Objection, form, foundation,  
19 relevance.

20 A. Let me just consult Stern directly.

21 Again, Stern does not explicitly state  
22 that, but again, someone skilled in the art would

1 interpret the dotted line to refer to the part that  
2 goes in the nose and the rest of the elements in  
3 figure 15 would be in the RF generator.

4 Q. I guess let me ask you this: If you were to  
5 assume in figure 15 that the RF generator is what's  
6 labeled '228, like the circle that's labeled '228 --

7 A. Okay.

8 Q. So assume that the circle that's labeled '228  
9 is the RF generator and everything else outside of it  
10 is not the RF generator. Are you with me so far?

11 A. Yes.

12 MR. NEMTZOW: Objection, form, foundation,  
13 relevance.

14 Q. In that case there would only be one  
15 radiofrequency output channel; right?

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. I don't see -- I'm having a hard time seeing  
19 how you then actuate the switches of Stern. Right?  
20 So I don't see how you implement Stern and achieve  
21 that.

22 Q. That wasn't exactly my question. So my

1 question was: If you assume that the circle labeled  
2 '228 in the left-hand-side annotated figure on Page 65  
3 of your declaration is the RF generator, with that  
4 assumption there's only one radiofrequency output  
5 channel; right?

6 MR. NEMTZOW: Objection, form, foundation,  
7 relevance.

8 A. Well, I'm not quite clear. Are you  
9 redefining -- so where do the switches go in that  
10 instance?

11 Q. Outside of the generator.

12 A. Okay. Are they inside the patient?

13 Q. No.

14 A. So then you've just redefined the generator.  
15 You've just taken the part that generates the sine  
16 wave, you've separated it from the part that had the  
17 switches. Effectively, those two things, though they  
18 may be in different boxes, are acting as a generator.  
19 I mean, so then the box with the switches, now that  
20 you've separated, is giving the output.

21 Q. You're still not answering my question. My  
22 question was: Assume that '228, the circle labeled

1 '228 is the RF generator and everything else outside  
2 of it is not. In that case there's only one  
3 radiofrequency output channel in that instance; right?

4 MR. NEMTZOW: Same objection.

5 A. But you're not implementing Stern; right?  
6 I'm talking about Stern. There's no switches, you're  
7 saying?

8 Q. I'm not saying that.

9 A. Okay.

10 Q. Let's do a hypothetical and then we'll try  
11 and work backwards.

12 Grab that, please. Assume the circle is  
13 the generator and the things labeled 1 and 2 are  
14 electrodes. How many radiofrequency output channels  
15 are in that figure?

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. Well, I mean, this is not what I base my  
19 declaration on. I base my declaration on Stern.

20 Q. I understand. We're speaking hypothetically  
21 about the circuit I've drawn. So the question was:  
22 Assume the circle is the radiofrequency generator and

1 the things I labeled 1 and 2 are electrodes. In this  
2 diagram I drew, how many radiofrequency output  
3 channels are in there?

4 MR. NEMTZOW: Same objection.

5 A. And so this is the part that's in the patient  
6 here, the bipolar electrodes?

7 Q. Yeah. They're not always going to be in the  
8 patient, but --

9 A. That's what you insert into the patient.

10 Q. Yes.

11 A. And this is outside the patient.

12 Q. Yes.

13 A. In this case, yes, I would say that's one  
14 output channel.

15 MR. GILFORD: Could we mark that as Martin  
16 Exhibit 6.

17 (Exhibit 6 marked for identification.)

18 A. Again, that drawing is not what I based my  
19 declaration on. I based my declaration on Stern.

20 Q. I understand. We're speaking hypothetically.

21 A. You're speaking hypothetically?

22 Q. Yes. So let's draw something else here.

1                   So again assume that the circle is the  
2                   radiofrequency generator and the things I labeled 1,  
3                   2, 3, and 4 are electrodes. Now, in this diagram that  
4                   I drew, which we'll mark as Martin Exhibit 6, how many  
5                   radiofrequency output channels are in that diagram?

6                   MR. NEMTZOW: Objection, form, foundation,  
7                   relevance.

8                   A. So, again, this is the part that's intended  
9                   to be inserted into the patient; the circle is  
10                  effectively the RF generator?

11                 Q. Yes.

12                 A. You might say that there are two channels.

13                 Q. Why do you say that?

14                 MR. NEMTZOW: Objection, form, relevance.

15                 A. So in this instance, electrodes 1 and 2 have  
16                 the same polarity; right? Electrodes 3 and 4 have the  
17                 same polarity. Current's going to flow from 1 to not  
18                 just 3 but will also flow from 1 to 4, and current's  
19                 going to flow from not -- it's not going to flow from  
20                 2 to 4. If they're all contacting tissue, it will  
21                 also flow from 2 to 3.

22                 Q. Okay. I guess if you go ahead and look at --

1 I guess in the diagram I drew that you have in front  
2 of you, how many -- are there any bipolar electrode  
3 pairs in that diagram?

4 MR. NEMTZOW: Objection, form, foundation,  
5 relevance.

6 A. Possibly, yes.

7 Q. Why do you say possibly?

8 A. Well, it's how you want to consider it;  
9 right? So you could pair 1 and 3. You could pair 1  
10 and 4. You could pair -- even without switching;  
11 right? -- 2 and 4 and 2 and 3.

12 Q. Why do you say "could" pair?

13 MR. NEMTZOW: Objection, relevance.

14 A. It depends how you use it. If you insert it  
15 partway into the nose; right? So these wouldn't make  
16 contact but these would. Then only electricity would  
17 flow between 2 and 4.

18 Q. And if all four electrodes were inserted into  
19 the nose?

20 MR. NEMTZOW: Objection, relevance.

21 A. Then current would flow amongst them all.

22 Q. Okay. And in that case how many pairs would

1       there be?

2                   MR. NEMTZOW:  Objection, form, foundation,  
3       relevance.

4           A.     You could define 1, 2, 3, 4.

5           Q.     Okay.  If you wouldn't mind flipping to Page  
6       64 of your '318 declaration.

7           A.     Yes.

8           Q.     And I'm looking at the claim language you  
9       reproduce kind of midway through the page.

10          A.     Yes.

11          Q.     And you see there's like a "wherein" clause  
12       there.  It says "wherein each pair of the multiple  
13       pairs of bipolar radiofrequency electrodes is  
14       connected with a respective one of the multiple  
15       radiofrequency output channels."  Do you see that?

16          A.     Yes.

17          Q.     Turning back to the diagram I'd drawn for you  
18       that we were talking about:  Does that diagram show  
19       wherein each pair of the multiple pairs of bipolar  
20       radiofrequency electrodes is connected with a  
21       respective one of the multiple radiofrequency output  
22       channels?

1 MR. NEMTZOW: Objection, form.

2 A. Well, my opinion in the declaration regarding  
3 element [f] -- I used Stern. I used this diagram.

4 Q. Right. I want to talk about my hypothetical  
5 circuit, though, and see if that reads on the claim  
6 language. Do you understand what I'm asking you to  
7 testify about?

8 MR. NEMTZOW: Objection, form, foundation,  
9 relevance.

10 A. Not exactly. I thought I was testifying  
11 about my declaration, not yours.

12 Q. It's not my declaration. We're talking about  
13 your opinions on claim terms. So we're talking about  
14 a hypothetical to understand how you interpreted  
15 different things.

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. My declaration is not about hypotheticals.

19 Q. I understand. But I'm asking you a  
20 hypothetical to get to the meaning you apply to  
21 different claim terms.

22 MR. NEMTZOW: Objection, form, foundation,

1 relevance.

2 A. In that case I refer you to the declaration.

3 Q. I want to talk about my diagram. If your  
4 answer is that you can't give an opinion on whether  
5 that diagram teaches wherein each pair of the multiple  
6 pairs of bipolar radiofrequency electrodes is  
7 connected with a respective one of the multiple  
8 radiofrequency output channels -- if you're saying  
9 today you can't give an opinion on that, so be it.  
10 But you're supposed to be the expert here. Do you  
11 want me to reask the question?

12 A. My opinion is contained in the declaration.  
13 It does not deal with hypotheticals. It deals with  
14 Stern.

15 Q. I'm going to ask you one more time about my  
16 drawing. Just so the record's clear, you can let me  
17 know if you're going to answer the question or not.

18 But the question was: In my drawing that  
19 I gave you that we're going to mark as, I believe,  
20 Martin Exhibit 6, does that diagram show wherein each  
21 pair of the multiple pairs of bipolar radiofrequency  
22 electrodes is connected with a respective one of the

1 multiple radiofrequency output channels?

2 MR. NEMTZOW: Objection, form, foundation,  
3 relevance.

4 A. Again, my opinion deals with Stern. It  
5 doesn't deal with your circuit.

6 Q. So you're not going to answer my question?

7 MR. NEMTZOW: Objection, form.

8 A. Your hypothetical question, no. But I'll  
9 answer any question about the declaration.

10 Q. So you're not going to answer my question.  
11 Understood.

12 Now, let's go back to my hypothetical  
13 again. And you had mentioned earlier, I believe, that  
14 a radiofrequency output channel is an output from the  
15 radiofrequency generator; right?

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. Yes.

19 Q. And in the drawing I gave you, there's one  
20 output from the radiofrequency generator; right?

21 MR. NEMTZOW: Objection, form, foundation,  
22 relevance.

1           A.    You tell me.  It's your drawing.  You tell  
2   me.

3           Q.    Well, we said the circle is the  
4   radiofrequency generator and the electrodes are what's  
5   going in the nose.  Right?  That was the assumption I  
6   gave you.  Correct?

7                   MR. NEMTZOW:  Objection, form, foundation,  
8   relevance.

9           A.    Okay.

10          Q.    So assuming that the circle in the drawing I  
11   gave you is the radiofrequency generator and the  
12   things libeled 1 through 4 are electrodes, in this  
13   drawing there's only one output from the  
14   radiofrequency generator; right?

15                  MR. NEMTZOW:  Same objection.

16          A.    Could you draw a dotted line on what you're  
17   calling the radiofrequency generator?

18          Q.    Uh-huh.

19                  So I drew a dotted -- a poorly drawn  
20   dotted rectangle around what I'm calling the  
21   radiofrequency generator.

22                  So the question was:  Assuming that the

1 circle in the drawing I gave you with the dotted  
2 rectangle around it is the radiofrequency generator,  
3 there's only one output from the radiofrequency  
4 generator; right?

5 MR. NEMTZOW: Objection, form, foundation,  
6 relevance.

7 A. In your hypothetical, which I didn't use as  
8 prior art in my declaration, yes.

9 Q. So it's fair to say that in the hypothetical  
10 circuit I gave you, which I believe we're going to  
11 mark as Martin Exhibit 6 or 7 --

12 MR. GILFORD: What are we on?

13 THE REPORTER: 7.

14 Q. Let me reask the question. So it's fair to  
15 say that in the hypothetical circuit I gave you, which  
16 we're going to mark as Martin Exhibit 7, that in this  
17 hypothetical circuit there is one radiofrequency  
18 output channel; correct?

19 MR. NEMTZOW: Objection, form, foundation,  
20 relevance.

21 A. Correct.

22 (Exhibit 7 marked for identification.)

1 Q. Do you have Stern in front of you?

2 A. Yes, somewhere.

3 Q. I was hoping you could help me with  
4 something. So if you look at column 10 of Stern, and  
5 I'm looking at about line 44. Let me know when you're  
6 there.

7 A. I'm there.

8 Q. Do you see that there's a reference to RF  
9 generator 158?

10 A. Yes.

11 Q. And can you go to figure 5 of Stern.

12 A. Yes.

13 Q. Can you let me know if in figure 5 of Stern,  
14 do you see a referenced numeral 158?

15 A. I don't. Is it missing?

16 Q. It appears to be. But in either case, you do  
17 not see a referenced numeral 158 in --

18 A. Yes, so Stern is calling 158 -- "RF generator  
19 158 serves as the RF input power for the controller  
20 156."

21 Q. Just so we're on the same page: I couldn't  
22 remember if there was a question pending or are you

1 trying to look something up or are you waiting for a  
2 question.

3 A. I'm waiting for a question.

4 Q. Sorry. I thought you were looking for  
5 something.

6 Let's go back to figure 5. Sorry for  
7 that. I thought you were looking for something.

8 Do you see at the top of figure 5 it says  
9 "isolation barrier"?

10 A. Yes.

11 Q. And then there's like a dotted line kind of  
12 that goes through this drawing. Do you see that?

13 A. Yes.

14 Q. Do you have an understanding of what  
15 "isolation barrier" is referring to?

16 A. Yes.

17 MR. NEMTZOW: Objection, form, relevance.

18 Q. What is your understanding?

19 A. In this context "isolation barrier" refers to  
20 a safety barrier that's designed into circuitry that's  
21 used for medical devices.

22 Q. And when you say "safety barrier," what do

1       you mean by that?

2                   MR. NEMTZOW:  Objection, relevance.

3           A.     Electrical safety in medical devices is  
4     assured by two primary means:  one, by making sure  
5     that current doesn't leak into the patient and  
6     electrocute them potentially; and the other is to make  
7     the patient somewhat what's called defibrillator-  
8     proof.  If the patient had to be defibrillated during  
9     the procedure with the device in place, that the  
10    device would not provide a short circuit that could  
11    electrocute the patient through the defibrillator.

12          Q.     So is the isolation barrier something you  
13    place inside the patient?

14          A.     No.  The isolation barrier is something that  
15    goes in the radiofrequency generator.

16          Q.     Okay.  And is there something in Stern that  
17    expressly says that?

18                   MR. NEMTZOW:  Objection, form, relevance.

19          A.     A person skilled in the art would recognize  
20    this immediately for a number of reasons.  One, you  
21    notice the isolation barrier passes through on the top  
22    left what's called an isolation transformer.  The

1 isolation transformer ensures that direct current does  
2 not pass from outside the isolation barrier to inside  
3 the isolation barrier to the patient.

4 The other key is, if you look at the  
5 bottom, you see the dotted line passes through two  
6 boxes that are called opto-isolators. Opto-isolators  
7 are a way of isolating typically digital signals that  
8 are used to pass digital information from outside the  
9 isolation barrier in the RF generator to inside the  
10 isolation barrier.

11 Q. If you could turn to figure 15 really quick.  
12 Figure 15 doesn't have any mention of an isolation  
13 barrier; correct?

14 A. Correct.

15 Q. Let's go back to your '318 patent  
16 declaration, and I'm looking at Page 89. And you have  
17 some claim language reproduced here towards the  
18 bottom. Do you see that?

19 A. Yes.

20 Q. And this is referring to claim 5 of the '318  
21 patent; right?

22 A. Yes.

1           Q.    And it says "the device of claim 4, wherein  
2           at least one pair of the multiple pairs of bipolar  
3           radiofrequency electrodes is coupled with each of the  
4           multiple segments." Do you see that?

5           A.    Yes.

6           Q.    So if I understand this claim correctly, you  
7           have multiple segments and there are multiple pairs of  
8           bipolar radiofrequency electrodes coupled with each of  
9           the segments; is that right?

10           MR. NEMTZOW: Objection, form, relevance.

11           A.    Yes, that's what it says.

12           Q.    And, I mean, according to this claim, the  
13           segments are different than the electrodes; right?

14           MR. NEMTZOW: Objection, form, relevance.

15           A.    Different meaning?

16           Q.    Well, the electrodes are coupled to the  
17           segments; right?

18           A.    Yes, yes.

19           Q.    Okay. So the segments can't be the same  
20           thing as the electrodes; right?

21           MR. NEMTZOW: Objection, form, relevance.

22           A.    I think that's how you define it. But okay.

1           Q.    So the answer is yes, in claim 5 of the '318  
2   patent the electrodes are different than the segments;  
3   is that right?

4                   MR. NEMTZOW:  Objection, form, relevance.

5           A.    I'm not sure I'd necessarily say that --  
6   right? -- because --

7           Q.    Can an electrode be coupled to itself?

8                   MR. NEMTZOW:  Objection, form, relevance.

9           A.    Well, I would say a segment could include the  
10   electrode, and it could include some other things as  
11   well; right?

12          Q.    Well, certainly according to this claim the  
13   electrodes are coupled to the segments; right?

14          A.    I mean, there's probably a case where an  
15   electrode could be a segment.

16          Q.    If an electrode could be a segment, how can  
17   you couple the electrode to itself?

18                   MR. NEMTZOW:  Objection, form, relevance.

19          A.    Well, in the case of Stern -- right? -- I  
20   mean, Stern talks about segments that are electrode  
21   area segments, so in Paragraph 169.

22          Q.    Just let me ask you this:  In analyzing the

1 '318 patent, did you assume that an electrode could be  
2 a segment?

3 MR. NEMTZOW: Objection, form, relevance.

4 A. With the teaching from Stern -- right? -- in  
5 Paragraph 169, I mean, you could have an electrode  
6 area segment. So yes.

7 Q. Isn't an electrode area segment just a  
8 segment that an electrode is then attached to?

9 MR. NEMTZOW: Objection, form, relevance.

10 A. Maybe, or the electrode is the segment.

11 Q. Let's focus on what the claim says. So,  
12 again, the claim says "the multiple pairs of bipolar  
13 radiofrequency electrodes is coupled with each of the  
14 multiple segments." So according to the claim, the  
15 segments and the electrodes are different things;  
16 right?

17 MR. NEMTZOW: Objection, form, relevance.

18 A. So that's the '318 patent. Let's see. So  
19 the problem -- I don't think the '318 patent  
20 specifically defines the use of the word "segment."  
21 So I don't know. I can't answer your question.

22 Q. Okay. Could you go to Page 107 of your '318

1 declaration. And again, you have some claim language  
2 reproduced here from claim 13 of the '318 patent;  
3 right?

4 A. Yes.

5 Q. So there's a term in here, "organized into  
6 multiple subsystems." Do you see that?

7 A. Yes.

8 Q. And there's a similar limitation in claim 9  
9 of the '286 patent; right?

10 MR. NEMTZOW: Objection, foundation.

11 A. Without looking back to it, I'll take your  
12 word for it.

13 Q. So the term "subsystem," what do you  
14 understand that term to mean in the context of the  
15 '318 and '286 patents?

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. Well, a subsystem is somewhat of a -- I mean,  
19 it kind of can be anything that you define it to be in  
20 some ways. If you look at, so, for instance,  
21 Paragraph 207 in my '318 declaration, it talks about  
22 how Stern disclose multiple subsystems in figure 5 and

1 15. So I think as an example, figure 5 on Page 110 of  
2 my declaration, that's a good example of a number of  
3 subsystems. So, for instance, the bottom left-hand  
4 corner, the computer -- right? -- that would be a  
5 subsystem. You could define potentially any one of  
6 those boxes as a subsystem.

7 Q. So I guess what do you understand the phrase  
8 "organized into multiple subsystems" to mean in the  
9 context of the '318 and '286 patents?

10 MR. NEMTZOW: Objection, form, foundation,  
11 relevance.

12 A. I think figure 5 is a good example of that --  
13 right? -- where you have essentially multiple systems  
14 and together they're organized and they're  
15 interconnected in some fashion.

16 Q. When you say "together they're organized,"  
17 what do you mean by that?

18 MR. NEMTZOW: Objection, relevance.

19 A. I mean in this case, like looking at figure  
20 5 -- right? -- they all have some input/output that  
21 will typically be from one to the next in this  
22 instance. That's not the only definition of

1 "subsystem." There are other definitions that you  
2 could apply.

3 Q. So the term "organized" in the larger phrase  
4 "organized into multiple subsystems," what does that  
5 mean?

6 MR. NEMTZOW: Objection, form, relevance.

7 A. Again I bring you back to figure 5; right?  
8 That's a good example that answers your question.

9 Q. Could you have multiple subsystems that are  
10 not organized?

11 MR. NEMTZOW: Objection, relevance.

12 A. I suppose you could, but I'm not quite sure  
13 how useful it would be.

14 Q. How could you have multiple subsystems that  
15 are not organized?

16 MR. NEMTZOW: Objection, form, relevance.

17 A. Well, I guess the question is are they  
18 organized individually or are they organized as a  
19 group in that instance?

20 Q. I guess what do you think claim 13 of the  
21 '318 patent requires?

22 MR. NEMTZOW: Objection, form, relevance.

1           A.    Again, I think Stern is a good example of  
2           that, figure 5. I think that shows multiple  
3           subsystems.

4           Q.    Are the multiple subsystems organized  
5           individually or organized as a group?

6                   MR. NEMTZOW: Objection, form, relevance.

7           A.    I would say both in this case.

8           Q.    So when you say -- I guess what does  
9           "multiple subsystems organized as a group" mean?

10                   MR. NEMTZOW: Objection, form, foundation,  
11           relevance.

12           A.    Well, I mean, in this sentence, I think it's  
13           just vague language. Someone designed this; right?  
14           Someone organized all of these components together to  
15           work together.

16           Q.    Okay. So I guess is it fair to say that  
17           "organized into multiple subsystems" essentially means  
18           that the subsystems are organized so that all the  
19           components together work together?

20                   MR. NEMTZOW: Objection, form, foundation,  
21           relevance.

22           A.    I mean, I would say, yes, that's true, but in

1 addition to that, there are other ways of thinking  
2 about it as well. Like when you say "work together,"  
3 they don't necessarily have to, I would say, be  
4 directly interconnected to be able to work together.

5 Q. I think I see what you're saying.

6 A. So, for instance, like, in this case the  
7 computer -- right? -- may not talk directly to, you  
8 know, the overvoltage suppression. The computer's on  
9 the digital side, the overvoltage suppression is on  
10 the analog side. There's no direct connection. But  
11 in a sense, they work together.

12 Q. If you'd go to Page 118 of your '318 patent  
13 declaration.

14 MR. NEMTZOW: I don't want to interrupt  
15 the questioning, but we've been going for about an  
16 hour and ten minutes.

17 MR. GILFORD: This is a perfect time for a  
18 break.

19 (Recess taken.)

20 Q. Dr. Martin, would you mind picking up the  
21 '318 patent declaration again and going to Page 118.

22 A. 118, yes.

1 Q. And looking at Paragraph 227.

2 A. Yes.

3 Q. Do you see at the beginning of this paragraph  
4 you wrote, "The '318 patent describes a 'multiplexed  
5 configuration,'" and it goes on?

6 A. Yes.

7 Q. What do you understand the term "multiplexed  
8 configuration" to mean in the context of the '318  
9 patent?

10 MR. NEMTZOW: Objection, form, foundation,  
11 relevance.

12 A. I look at figure 15 from Stern on the  
13 previous page. So that's an example of a multiplexed  
14 configuration.

15 Q. Can you provide a little more detail on what  
16 you mean by "multiplexed configuration"?

17 MR. NEMTZOW: Objection, form, relevance.

18 A. Well, there are a number of ways to implement  
19 a multiplexed configuration. Stern suggests one here,  
20 in figure 15.

21 Q. So when you say the '318 patent describes a  
22 multiplexed configuration, what do you mean by it

1 describes a multiplexed configuration?

2 MR. NEMTZOW: Objection, form, relevance.

3 A. Again, figure 15 is a good example of a  
4 multiplexed configuration. We have multiple switches.  
5 We have inputs and outputs.

6 Q. Does a multiplexed configuration require  
7 multiple outputs?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. I would say usually. I can't think of any  
10 that doesn't have multiple outputs.

11 Q. Does a multiplexed configuration require  
12 multiple inputs?

13 MR. NEMTZOW: Objection, form, relevance.

14 A. I think you would need at least multiple  
15 inputs or at least multiple outputs to have a  
16 multiplexed configuration.

17 Q. So I guess if I understand you correctly, to  
18 have a multiplexed configuration -- sorry, go ahead.

19 A. Let me amend that. A multiplexed  
20 configuration, you have to have at least, either/or,  
21 multiple inputs or multiple outputs, and they should  
22 be switchable, like figure 15.

1 Q. So having a multiplexed configuration with  
2 multiple outputs, do you need to have multiple inputs?

3 MR. NEMTZOW: Objection, form, relevance.

4 A. No.

5 Q. Can you have a multiplexed configuration with  
6 a single output?

7 MR. NEMTZOW: Objection, form, relevance.

8 A. I would say if you have multiple inputs, then  
9 yes -- that are switchable.

10 Q. So other than pointing me to Stern figure 15,  
11 can you explain to me what the term "multiplexed  
12 configuration" means in the context of the '318  
13 patent?

14 MR. NEMTZOW: Objection, form, relevance.

15 A. As a person skilled in the art, the term  
16 "multiplexed" in general means that you have  
17 switching, that you can switch things in, switch  
18 things out.

19 Q. Does a multiplexed configuration require  
20 anything other than switching?

21 MR. NEMTZOW: Objection, form, relevance.

22 A. Like I said, you would need either multiple

1 inputs or multiple outputs or both, and those multiple  
2 inputs and/or multiple outputs can be switchable in  
3 some fashion.

4 Q. Does multiplexed configuration require  
5 anything more than that?

6 MR. NEMTZOW: Objection, form, relevance.

7 A. I think at its base, that's it.

8 Q. Can you go to Page 159.

9 A. I'm there, yes.

10 Q. And I'm looking at Paragraph 319. And at the  
11 end of this paragraph do you see where you wrote "the  
12 strut members 214 deflect when expanded"? Do you see  
13 that? Paragraph 319.

14 A. Yes.

15 Q. You're referring to Makower's strut members  
16 214 here; is that right?

17 A. Correct, yes.

18 Q. When you say it deflects, what do you mean by  
19 that?

20 MR. NEMTZOW: Objection, form, relevance.

21 A. I think we discussed this a little bit  
22 before. But if you look at Makower's figure 5H, the

1 214 elements, it's implied that when that's inserted  
2 into the tissue, into the cavity, that it's in one  
3 configuration and it expands to another configuration.  
4 That expansion to the second configuration requires  
5 the strut members to deflect in some fashion.

6 Q. Right. So when you use the term "deflect,"  
7 what do you mean by that?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. It's not such a specific term. It's simply  
10 signifying some form of movement.

11 Q. So when you say "deflect," you're using it to  
12 mean some form of movement?

13 MR. NEMTZOW: Objection, form, relevance.

14 A. Of the strut members, yes.

15 Q. Any type of movement in particular?

16 MR. NEMTZOW: Objection, form, relevance.

17 A. Well, I would say, you know, if those strut  
18 members -- this is not the case, but if they were on  
19 hinges, they moved by a hinge action, you might not  
20 call that a deflection.

21 Q. Doesn't "deflection" mean going from straight  
22 to bent?

1 MR. NEMTZOW: Objection, form, foundation,  
2 relevance.

3 A. No, "deflect" means going from one shape to  
4 another shape.

5 Q. Okay. Or at least that's the meaning that  
6 you applied in your analysis. Is that right?

7 MR. NEMTZOW: Objection, form, relevance.

8 A. It's -- yes.

9 Q. And I guess when you wrote the phrase  
10 "deflect when expanded," what do you mean by that?

11 MR. NEMTZOW: Objection, form, relevance.

12 A. So again, looking back at figure 5H in  
13 Makower, that device in the description says it's  
14 inserted into the nasal cavity and it expands from one  
15 configuration to a second configuration. And so in  
16 doing so it deflects the struts to achieve that  
17 configuration change.

18 Q. And again, when you say "deflect when  
19 expanded," you're basically saying that the struts 214  
20 move in some way when expanded. Is that what you're  
21 saying?

22 A. Correct, yes.

1 Q. Going back to Paragraph 319 of your  
2 declaration. You didn't cite any record evidence in  
3 this paragraph; correct?

4 MR. NEMTZOW: Objection, form, relevance.

5 A. Well, I refer to Makower.

6 Q. Right, but you didn't cite to it, did you?

7 MR. NEMTZOW: Objection, form.

8 A. I believe there's only one Makower reference  
9 that I refer to in this declaration.

10 Q. You didn't cite to any particular portion of  
11 Makower, did you, in Paragraph 319?

12 MR. NEMTZOW: Objection, form.

13 A. Well, I mentioned strut member 214, which was  
14 previously mentioned in figure 5H.

15 Q. The question was: In Paragraph 319 of your  
16 '318 patent declaration, it's fair to say that you did  
17 not include any particular citation to the record;  
18 correct?

19 MR. NEMTZOW: Objection, form.

20 A. I think it's obvious as to what I was  
21 referring to.

22 Q. No, I don't think it is, because --

1                   When I say "citation to the record," do  
2                   you understand what I mean?

3                   A.     Please define it for me.

4                   MR. NEMTZOW:   Objection, form.

5                   Q.     So if you look at Paragraph '318, for  
6                   example, in the first sentence, do you see where you  
7                   have a mention of Exhibit 1021-Makower, Paragraph  
8                   0187?

9                   A.     Yes.

10                  Q.     I would consider that a citation to the  
11                  record.

12                  MR. NEMTZOW:   Objection, form,  
13                  argumentative.

14                  Q.     Do you see what I mean?

15                  A.     Yes.

16                  Q.     There's no such citation to the record in  
17                  Paragraph 319 of your '318 patent declaration;  
18                  correct?

19                  MR. NEMTZOW:   Objection, form.

20                  A.     Is there something you don't understand about  
21                  319?

22                  Q.     No.   Was my question unclear?   I can reask it

1 if you like.

2 MR. NEMTZOW: Objection, form.

3 A. Please.

4 Q. The question was: There's no citation to the  
5 record in Paragraph 319 of your '318 patent  
6 declaration; correct?

7 MR. NEMTZOW: Again, objection, form.

8 A. There's no specific citation as you've  
9 defined it.

10 Q. So what is your support for your opinion that  
11 Makower's strut members 214 deflect when expanded?

12 MR. NEMTZOW: Objection, form.

13 A. Again, it goes back to the reading of figure  
14 5H.

15 Q. Okay. Well, figure 5H shows the device of  
16 Makower in only one configuration; correct?

17 A. That is correct.

18 Q. So other than Makower figure 5H, what is your  
19 support for your opinion that the strut members 214  
20 deflect when expanded?

21 MR. NEMTZOW: Objection, form.

22 A. As a person skilled in the art who has used

1 and designed devices with nitinol, and reading Makower  
2 and seeing this figure, that's what's allowed me to  
3 come to that conclusion, that this is an  
4 expanded-state device.

5 Q. Other than your say-so and seeing figure 5H,  
6 did you have any other support for your opinion that  
7 strut members 214 deflect when expanded?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. I would say it's part of my opinion.

10 Q. What else are you relying on?

11 A. My experience as a person skilled in the art.

12 Q. Anything else?

13 A. 30 years' experience designing medical  
14 devices.

15 Q. Anything else from Makower?

16 A. Ah.

17 MR. NEMTZOW: Objection, relevance.

18 A. Well, there were a couple of other figures,  
19 just how he described them, how he described them  
20 having -- going from one state to a second state after  
21 being inserted into the body cavity.

22 Q. Did you cite any of those figures in

1 Paragraph 319 of your declaration?

2 MR. NEMTZOW: Objection, form.

3 A. Not specifically in 319, but they are in the  
4 overall opinion.

5 Q. Where are they cited in the overall opinion?

6 A. I'm sorry, they're in Makower's patent  
7 specifications.

8 Q. Okay. You didn't cite them in your  
9 declaration?

10 MR. NEMTZOW: Objection, form.

11 A. I don't think so.

12 Q. Would you mind picking up the '077 patent  
13 declaration.

14 A. Okay.

15 Q. And let's go to Page 63. Let me know when  
16 you're there.

17 A. I'm there.

18 Q. So you signed your declaration on January  
19 15th, 2024; is that right?

20 A. Correct.

21 Q. Are you aware that this declaration was  
22 originally submitted in IPR2024-00281?

1 A. Yes.

2 Q. And are you aware that IPR2024-00281 was  
3 terminated?

4 A. No.

5 Q. I will represent to you that IPR2024-00281  
6 was terminated. With that representation, do you have  
7 any understanding of why IPR2024-00281 was terminated?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. No.

10 Q. Are you aware that this declaration was  
11 resubmitted in IPR2024-00669?

12 A. I -- no.

13 Q. Are you aware that the petition in  
14 IPR2024-00669 was filed on April 3rd, 2024?

15 A. No, I don't think so.

16 Q. Have any of your opinions changed between  
17 January 15th, 2024, and April 3rd, 2024?

18 A. No.

19 Q. Are you familiar with an individual named  
20 Nicolas Bu-Saba? Bu-Saba is spelled B-u-S-a-b-a.

21 A. Yes.

22 Q. Did you know Dr. Bu-Saba before these IPRs?

1 A. No.

2 Q. And you've previously spoken with Dr.  
3 Bu-Saba; right?

4 A. Yes.

5 Q. How many times have you spoken with him?

6 A. Once.

7 Q. Do you recall when you spoke with him?

8 A. No, not exactly.

9 Q. Do you recall whether it was before January  
10 15th, 2024?

11 A. It was around that time. I don't recall  
12 exactly.

13 Q. I guess let me phrase it this way: So the  
14 declaration that we've been talking about you agreed  
15 was signed January 15th, 2024; right?

16 A. Correct.

17 Q. Do you recall whether you spoke to Dr.  
18 Bu-Saba before you signed your declaration?

19 A. I don't.

20 Q. Do you recall whether you spoke with him in  
21 person?

22 A. I spoke with him via Zoom.

1 Q. Did anybody else participate in that  
2 conversation?

3 A. I don't think so.

4 Q. So just the two of you were on the Zoom call;  
5 is that correct?

6 A. I think that's correct.

7 Q. Do you recall how long you spoke with Dr.  
8 Bu-Saba?

9 A. It would have been maybe 30 minutes.

10 Q. Do you recall why you spoke with Dr. Bu-Saba?

11 A. It was to give him the opportunity to ask me  
12 any questions.

13 Q. Were there any other reasons why you spoke  
14 with Dr. Bu-Saba?

15 A. No.

16 Q. Did Dr. Bu-Saba ask you any questions?

17 A. I don't remember.

18 Q. In general, what did you talk about for the  
19 approximately 30 minutes that you spoke?

20 A. I really don't remember specifics.

21 Q. Did you rely on your conversation with Dr.  
22 Bu-Saba in formulating any of your opinions in this

1 '077 patent declaration?

2 A. No.

3 Q. Do you know whether Dr. Bu-Saba submitted a  
4 declaration in IPR2024-00281?

5 A. I think he did.

6 Q. Do you know whether Dr. Bu-Saba relied on  
7 your conversation with him in formulating any of his  
8 opinions in his declaration?

9 A. I don't know the answer to that.

10 Q. Did you take any notes during your  
11 conversation with Dr. Bu-Saba?

12 A. No.

13 Q. Let's go to Page 9 of your declaration, and  
14 I'm looking at Paragraph 23, the last steps. Do you  
15 see where you wrote, "I have also relied on a  
16 conversation with Dr. Nicolas Bu-Saba and have  
17 reviewed his declaration"? Do you see that?

18 A. Yes.

19 Q. When you say you reviewed his declaration,  
20 which declaration are you referring to?

21 A. I don't know. I don't remember.

22 Q. Do you recall ever seeing a declaration

1 written by Dr. Bu-Saba?

2 A. I don't remember.

3 Q. So if I understand you correctly, you have no  
4 recollection as we sit here today of reviewing a  
5 declaration authored by Dr. Bu-Saba; is that correct?

6 MR. NEMTZOW: Objection, form.

7 A. That is correct.

8 Q. Do you recall ever receiving a declaration  
9 from Dr. Bu-Saba?

10 A. I don't remember.

11 Q. Do you recall ever receiving a declaration  
12 authored by Dr. Bu-Saba?

13 A. I don't remember.

14 Q. In formulating your opinions in this  
15 declaration, did you rely on -- did you rely on any  
16 opinions from Dr. Bu-Saba?

17 A. I don't think so.

18 Q. In formulating your opinions in this  
19 declaration, did you rely on a declaration from Dr.  
20 Bu-Saba?

21 A. I don't think so.

22 Q. Do you know whether Dr. Bu-Saba submitted a

1 declaration in IPR2024-00669?

2 A. I don't know.

3 Q. Let's go to Page 21 of your declaration, and  
4 I'm looking at Paragraph 47.

5 A. Yes.

6 Q. So in Paragraph 47 do you see where you  
7 wrote, "I have been asked to offer opinions regarding  
8 claim 4 as it relates to Ground III (Saadat and Stern)  
9 and Ground VI (Makower, Fang, Edwards-535 and Stern)"?  
10 Do you see that?

11 A. Yes.

12 Q. So for the '077 patent IPR, you're providing  
13 opinions regarding claim 4 only; is that correct?

14 MR. NEMTZOW: Objection, form.

15 A. I think that's correct.

16 Q. And your opinions relate only to Grounds III  
17 and VI; is that correct?

18 A. I believe that's correct.

19 Q. Is it your opinion that claim 4 of the '077  
20 patent is invalid as obvious?

21 MR. NEMTZOW: Objection, form, relevance.

22 A. Well, if you look at Paragraph 76 and 77,

1 that contains a summary of my opinion.

2 Q. So the question was: Are you opining in this  
3 declaration that claim 4 of the '077 patent is invalid  
4 as obvious?

5 MR. NEMTZOW: Objection, form, relevance.

6 A. That's not what Paragraph 76 and 77 say.

7 Q. I agree that it does not say that there.  
8 Just so the record is clear: Are you opining in your  
9 '077 patent declaration that claim 4 of the '077  
10 patent is invalid as obvious?

11 MR. NEMTZOW: Objection, form, relevance.

12 A. Well, Paragraph 76 says it's my opinion that  
13 a person skilled in the art would have had a  
14 reasonable expectation of success in implementing  
15 Stern's multiple pairs of bipolar electrodes into  
16 Saadat's RF ablation device. It is my opinion that  
17 this implementation was well within the skills that a  
18 person skilled in the art would see to be a  
19 predictable result of using one known feature with  
20 another to reach predictable results.

21 Q. So are you opining in your '077 patent  
22 declaration that claim 4 of the '077 patent is invalid

1 as obvious?

2 MR. NEMTZOW: Objection, form, relevance.

3 A. The opinion simply states that a person  
4 skilled in the art would have been motivated to  
5 combine the teachings of Saadat and Stern with a  
6 reasonable expectation of success.

7 Q. So the answer is no, you're not opining that  
8 claim 4 of the '077 patent is invalid as obvious;  
9 correct?

10 MR. NEMTZOW: Objection, form, relevance.

11 A. Correct. My opinion does not contain  
12 anything regarding validity.

13 Q. Okay. Are you aware that claim 4 of the '077  
14 patent depends from claims 1 and 2 of the '077 patent?

15 A. Yes.

16 Q. Did you analyze claim 1 of the '077 patent as  
17 part of your analysis?

18 A. I looked at it.

19 Q. In your declaration for the '077 patent did  
20 you analyze claim 1 of the '077 patent?

21 A. No.

22 MR. NEMTZOW: Objection, form, relevance.

1 A. No.

2 Q. And in your '077 patent declaration did you  
3 analyze claim 2 of the '077 patent?

4 MR. NEMTZOW: Objection, form, relevance.

5 A. No.

6 Q. Were you asked to provide opinions regarding  
7 claim 1 of the '077 patent?

8 MR. NEMTZOW: Objection, privilege. I  
9 just caution the witness not to share any  
10 conversations he had with attorneys.

11 A. No.

12 Q. Were you asked to provide opinions regarding  
13 claim 2 of the '077 patent?

14 MR. NEMTZOW: Same objection, same  
15 instruction.

16 A. No.

17 Q. Let's go to Page 10 of your declaration. And  
18 I'm looking at the -- I guess it's the end of  
19 Paragraph 25, the second-to-last sentence. Do you  
20 see, the last two -- I'm going to read the last two  
21 sentences for you. Do you see where you wrote, "For  
22 purposes of my analysis, I have considered the level

1 of ordinary skill in the art as of July 2005 and as of  
2 October 2019. In my opinion, that level was the same  
3 for all relevant times between 2005 and 2019"? Do you  
4 see that?

5 A. Yes.

6 Q. Is it your position that nothing changed in  
7 14 years regarding the level of ordinary skill in the  
8 art?

9 MR. NEMTZOW: Objection, form, relevance.

10 A. I think it remains the same; right? A person  
11 skilled in the art would need to have a doctor of  
12 medicine or a master's degree in engineering or  
13 related discipline and at least three years'  
14 experience.

15 Q. What's your basis for saying that the level  
16 of ordinary skill in the art did not change in the  
17 14-year time period between July 2005 and October  
18 2019?

19 MR. NEMTZOW: Objection, form.

20 A. Well, for what concerns the devices here,  
21 during that time period there was not any scientific  
22 breakthroughs in the use of radiofrequency technology.

1           Q.   Any other reason for your opinion that the  
2           level of ordinary skill in the art did not change  
3           between July 2005 and October 2019?

4           A.   I think that pretty much covers it.

5           Q.   In your '077 patent declaration, in your  
6           analysis of the combination of Saadat and Stern, what  
7           date did you apply for your analysis?

8           A.   I primarily applied the earlier date, 2005.

9           Q.   What do you mean, you primarily applied the  
10          earlier date?

11          A.   That's the date I applied.

12          Q.   Okay. At any point in your analysis did you  
13          apply a later date than 2005?

14          A.   No.

15          Q.   In analyzing the combination of Makower,  
16          Fang, Edwards '535, and Stern, what date did you apply  
17          for that analysis?

18          A.   2005.

19          Q.   Did you ever apply a date later than 2005 in  
20          your analysis?

21          A.   No.

22          Q.   Out of curiosity -- well, let me go ahead and

1 give you --

2 So I'm giving you what was previously  
3 marked as Neurent Exhibit 1003, and this is from the  
4 '077 patent IPR. You've seen this before; right?

5 A. Yes.

6 Q. And this is the Saadat patent?

7 A. Yes.

8 Q. Do you see there's a filing date listed on  
9 the left-hand side of the first page?

10 A. Yes.

11 Q. And that filing date is May 17th, 2018;  
12 right?

13 A. Yes.

14 Q. And if you flip to the next page, do you see  
15 that towards the top left there's actually two  
16 provisional applications listed here? Do you see  
17 that?

18 A. Yes.

19 Q. Do you see one was filed on June 22nd, 2014?  
20 Do you see that?

21 A. Yes.

22 Q. And another one was filed on September 30th,

1 2013. Correct?

2 A. Yes.

3 MR. NEMTZOW: Objection, form.

4 Q. So it's fair to say that this -- just to be  
5 clear, the Saadat patent was issued on June 4th, 2019.  
6 Do you see that, on the first page?

7 A. Yes.

8 Q. So it's fair to say that the Saadat patent  
9 was issued much later than 2005; correct?

10 MR. NEMTZOW: Objection, relevance.

11 A. Correct.

12 Q. And it's fair to say that the application  
13 that led to this Saadat patent was filed years after  
14 2005; correct?

15 MR. NEMTZOW: Objection, form.

16 A. Correct.

17 Q. And it's fair to say that the earliest date  
18 the Saadat patent could claim priority to is September  
19 30th, 2013; correct?

20 MR. NEMTZOW: Objection, form, foundation,  
21 relevance.

22 A. Correct.

1 Q. And September 30th, 2013, is years after  
2 2005; correct?

3 A. Correct.

4 MR. NEMTZOW: Objection, form.

5 Q. So in analyzing the Saadat and Stern  
6 combination in your '077 patent declaration, how could  
7 you use 2005 as the point -- as the date of your  
8 analysis, when this Saadat patent didn't exist at that  
9 point?

10 MR. NEMTZOW: Objection, form, relevance.

11 A. The 2005 refers to a person skilled in the  
12 art. They only need to have background in ablation in  
13 this area, of 2005. That's different than the prior  
14 art that's applied.

15 Q. Well, do you understand that the -- in  
16 assessing obviousness, that the claims must be  
17 analyzed from the perspective of one of skill in the  
18 art at the time of the alleged invention?

19 A. Or before.

20 Q. Sure. Now, if you're assuming that the time  
21 of the alleged invention is July of 2005, a person of  
22 ordinary skill in the art couldn't have looked at

1 Saadat at that point; correct?

2 MR. NEMTZOW: Objection, form, relevance.

3 A. Well, again, don't confuse the level of skill  
4 that can be acquired up until 2005 with the date of  
5 the prior art.

6 Q. I understand. But a person of ordinary skill  
7 in the art in 2005 could not have considered Saadat;  
8 correct?

9 MR. NEMTZOW: Objection, form, relevance.

10 A. A person with skill up to 2005 could have  
11 evaluated the prior art and its relevance to the '077  
12 patent. It's about skill; it's not about prior art.

13 Q. My question was: A person of ordinary skill  
14 in the art in 2005 could not have considered Saadat.  
15 Isn't that true?

16 A. No.

17 MR. NEMTZOW: Objection, form, relevance.

18 A. If you take a person in 2005 and you put them  
19 in a time machine and you brought them to this date  
20 and you handed them this and you said, "Do this  
21 analysis," they could do this analysis.

22 Q. I agree with you that a person existing today

1     could consider Saadat, because it exists today. My  
2     question was: If you go back to 2005, a person in  
3     2005 could not have considered Saadat. Isn't that  
4     true?

5             MR. NEMTZOW: Objection, form, relevance.

6             A. A person with the skills only acquired to  
7     2005, and if they joined the Peace Corps and didn't  
8     think about ablation, didn't know anything about the  
9     field and then came back, they could have done this  
10    analysis.

11            Q. You're still not answering my question. My  
12    question was: If you go back to 2005, a person in  
13    2005 could not have considered Saadat; correct?

14            MR. NEMTZOW: Same objection.

15            A. I guess -- so I can't quite understand how  
16    this relates to the declaration.

17            Q. Well, whether -- I mean, do you not  
18    understand my question?

19            A. Is it about the level of ordinary skill in  
20    the art of art?

21            Q. I'll reask the question and then you can tell  
22    me what you don't understand about it. The question

1 was: If you go back to 2005, a person of ordinary  
2 skill in the art in 2005 could not have considered  
3 Saadat at that time; correct?

4 MR. NEMTZOW: Objection, form, relevance.

5 A. In 2005?

6 Q. Yes.

7 A. But we're not in 2005.

8 Q. But I'm asking -- I understand that. Do you  
9 not understand my question?

10 A. There's nothing in Saadat that someone from  
11 2005 could not understand.

12 Q. You're still not answering my question,  
13 because my question is about going back to 2005. So  
14 again, the question was: If you go back to 2005,  
15 isn't it fair to say that a person of ordinary skill  
16 in the art at that time could not have considered  
17 Saadat?

18 MR. NEMTZOW: Objection, form, relevance.

19 A. Are you talking about in 2005 or a person  
20 who's only developed skills until 2005?

21 Q. I'm talking about in 2005.

22 MR. NEMTZOW: Same objection.

1           Q.    So I'll reask the question.  If you go back  
2   to 2005, isn't it fair to say that a person of  
3   ordinary skill in the art at that time could not have  
4   considered Saadat?

5                   MR. NEMTZOW:  Same objection.

6           A.    Barring the existence of a time machine, then  
7   yes.

8           Q.    Yes, they could not have considered it in  
9   2005; right?

10          A.    Yes.

11                  MR. NEMTZOW:  Same objection.

12          Q.    Let's jump ahead to Page 44 of your  
13   declaration.  I'm looking at Paragraph 81, near the  
14   bottom.  Do you see where you wrote, "Makower also  
15   teaches that the electrosurgical device is 'inserted  
16   into the nasal cavity' or 'nasopharynx... to perform  
17   diagnostic or therapeutic procedures'"?  Do you see  
18   that?

19          A.    Yes.

20          Q.    What is the nasal cavity?

21                  MR. NEMTZOW:  Objection, form, relevance.

22          A.    I think that's more a clinical question than

1 an anatomy question. I did not offer an opinion on  
2 what is called the nasal cavity.

3 Q. Understood. As we sit here today, do you  
4 have an understanding of what the nasal cavity is?

5 MR. NEMTZOW: Objection, form, relevance.

6 A. I have a general understanding.

7 Q. Can you give me that general understanding.

8 MR. NEMTZOW: Same objection.

9 A. That the nasal cavity starts at the nostril  
10 and moves back to the -- to the pharynx.

11 Q. And do you have an understanding of what the  
12 nasopharynx is?

13 MR. NEMTZOW: Objection, form, relevance.

14 A. Not exactly, no.

15 Q. Do you have an understanding of what the  
16 difference between the nasal cavity and the  
17 nasopharynx is?

18 MR. NEMTZOW: Same objection.

19 A. I believe the nasopharynx cavity --

20 Well, no. I'll just stop there. No.

21 Q. So that the record's clear, you do not have  
22 an understanding of what the difference between the

1 nasal cavity and the nasopharynx is; correct?

2 MR. NEMTZOW: Same objection.

3 A. I do not know exactly -- correct. I do not  
4 know exactly what the clinical definitions are.

5 Q. Is it your opinion that the Makower -- excuse  
6 me. Is it your opinion that Makower discloses that  
7 the device of figure 5H can be inserted into both the  
8 nasal cavity and the nasopharynx?

9 MR. NEMTZOW: Objection, form, relevance.

10 A. I mean, that's how Makower describes it. So  
11 yes.

12 Q. And are you basing that off of Makower  
13 Paragraph 0161?

14 A. Well, it's quoted in Paragraph 81; right?  
15 "Makower 1005" --

16 Yeah, I'm sorry. Yes, 0161, yes.

17 Q. Are you basing your opinion that Makower's  
18 device of figure 5H can be inserted into both the  
19 nasal cavity and the nasopharynx off of anything other  
20 than Makower, Paragraph 0161?

21 MR. NEMTZOW: Objection, form, relevance.

22 A. I didn't -- there may be other support in

1 Makower as well. I didn't look for that -- but  
2 except -- it's been reproduced here, what I found.

3 Q. When you say --

4 A. There may be other places in Makower that  
5 support that statement. Without going through the  
6 patent again right here now, I can't say.

7 Q. So other than Makower Paragraph 0161, as we  
8 sit here today, you do not have any further support  
9 for your opinion that Makower discloses that the  
10 device of figure 5H can be inserted into both the  
11 nasal cavity and the nasopharynx; correct?

12 MR. NEMTZOW: Objection, form, relevance.

13 A. Yes.

14 Q. Let's go to Page 45, and I'm looking at  
15 Paragraph 83. The second sentence, do you see where  
16 you wrote, "In particular, Fang teaches using 'the  
17 SHP-1 five-organ radiofrequency therapy instrument,'"   
18 and it goes on? Do you see that?

19 A. Yes.

20 Q. Are you familiar with the SHP1 instrument?

21 A. My familiarity with it has only been derived  
22 through this reference.

1           Q.    When you say "this reference," are you  
2 referring to Fang?

3           A.    Fang, correct, yes.

4           Q.    Have you ever had the SHP-1 instrument?

5                   MR. NEMTZOW:  Objection, relevance.

6           A.    No.

7           Q.    Have you ever used the SHP-1 instrument?

8                   MR. NEMTZOW:  Objection, relevance.

9           A.    No.

10          Q.    Do you know what the SHP-1 instrument looks  
11 like?

12                   MR. NEMTZOW:  Objection, relevance.

13          A.    No.

14          Q.    Do you know whether the SHP-1 instrument has  
15 electrodes?

16                   MR. NEMTZOW:  Objection, relevance.

17          A.    Yes.

18          Q.    Do you know whether the SHP-1 instrument has  
19 bipolar electrodes?

20                   MR. NEMTZOW:  Objection, relevance.

21          A.    I'm not sure.

22          Q.    Do you know how the electrodes are arranged

1 on the SHP-1 instrument?

2 MR. NEMTZOW: Objection, relevance.

3 A. No, not exactly.

4 Q. What do you mean, "not exactly"?

5 A. Well, I'd have to go back to the reference to  
6 look and see.

7 Q. Do you want a copy?

8 A. Do you have a copy? Yes.

9 Q. So I'm handing you what was prefiled marked  
10 as Neurent Exhibit 1006 in the '077 patent proceeding.  
11 And that's the Fang reference; correct? What I just  
12 handed you?

13 A. I believe so.

14 Q. Sorry, take your time.

15 So the question I had asked earlier was:  
16 Do you know how the electrodes are arranged on the  
17 SHP-1 instrument?

18 MR. NEMTZOW: Same objection.

19 A. No, not exactly.

20 Q. Again, what do you mean by "not exactly"?

21 A. Well, there is some description in Fang about  
22 the electrode configuration, but it's somewhat

1 imprecise.

2 Q. Sure. Can you point me to that?

3 A. So under Section 1.2, under Treatment  
4 Methods.

5 Q. Give me one second to get there. You said  
6 under Treatment Methods?

7 A. Yes, 1.2.

8 Q. I'm with you.

9 A. So Fang states radiofrequency at the interior  
10 upper part of the nasal septum on both sides, the  
11 radiofrequency points on both sides were staggered by  
12 5 millimeters. So that's some sense of their location  
13 relative to each other.

14 Down below it says the interior part of  
15 the inferior turbinate could undergo radiofrequency at  
16 three to five points.

17 So, I mean, it's some indication, but not  
18 a complete description of the location of the  
19 electrodes.

20 Q. I guess when it's saying -- when this  
21 document's referring to "points," are you interpreting  
22 that to mean different locations in the nose, or are

1 you interpreting that to mean the number of  
2 electrodes?

3 A. So "undergo radiofrequency at three to five  
4 points": It may not be the number of electrodes. It  
5 may be the number of treatment sites.

6 Q. Okay. I guess either way it's unclear from  
7 this document?

8 A. Unclear, yes.

9 Q. So going back to Paragraph 83 of the '077  
10 declaration, and I'm looking about midway through the  
11 paragraph, starting on the right-hand side. There's a  
12 mention of something called "the sphenopalatine  
13 foramen." Do you see that?

14 A. Yes.

15 Q. The sphenopalatine foramen is in the  
16 nasopharynx?

17 MR. NEMTZOW: Objection, form, foundation,  
18 relevance.

19 A. Not being a clinician, I don't know exactly  
20 where that is.

21 Q. Do you know what the sphenopalatine foramen  
22 is?

1 MR. NEMTZOW: Same objection.

2 A. No.

3 MR. GILFORD: I think we've been going  
4 about for an hour again. I'd prefer to take a break  
5 now. Does that sound good?

6 MR. NEMTZOW: That works.

7 THE WITNESS: That's good.

8 MR. GILFORD: Let's go off the record.

9 (Recess taken.)

10 Q. So when we had a break, we were discussing  
11 your '077 patent declaration. Would you mind turning  
12 to Page 50.

13 A. Okay.

14 Q. And I'm looking at Paragraph 92. Do you see  
15 where you wrote, "Makower discloses delivering RF  
16 energy to tissue using bipolar RF electrodes, but does  
17 not provide details regarding how to configure its  
18 bipolar electrodes"? Do you see that?

19 A. Yes.

20 Q. So is it fair to say that Makower does not  
21 provide details regarding how to configure  
22 radiofrequency electrodes?

1 MR. NEMTZOW: Objection, form.

2 A. Yes. I mean, as it says, does not provide  
3 details regarding how to configure its bipolar  
4 electrodes.

5 Q. And then you see where you wrote, "Similarly,  
6 Fang and Edwards each teach applying RF energy to  
7 tissue and Edwards-535 teaches an RF generator for  
8 supplying RF energy to multiple electrodes, but each  
9 reference also does not provide details regarding how  
10 to configure RF electrodes"? Do you see that?

11 MR. NEMTZOW: Objection, form.

12 A. Yes.

13 Q. So you agree that neither Fang nor Edwards  
14 '535 provides details regarding how to configure  
15 radiofrequency electrodes; correct?

16 MR. NEMTZOW: Objection, form.

17 A. Correct.

18 Q. So the next sentence there, do you see where  
19 you wrote, "A person of ordinary skill in the art  
20 would have been motivated to incorporate the teachings  
21 from Stern when implementing the device taught by the  
22 combination of Makower, Fang, and Edwards-535," and

1 then it goes on? Do you see that?

2 A. Correct.

3 Q. What is the device taught by the combination  
4 of Makower, Fang, and Edwards '535?

5 MR. NEMTZOW: Objection, form.

6 A. Well, in my opinion I don't design a  
7 completely new device.

8 Q. Well, you mention here a "device taught by  
9 the combination of Makower, Fang, and Edwards-535";  
10 correct?

11 A. Yes.

12 Q. So when you say "the device taught by the  
13 combination of Makower, Fang, and Edwards-535," what  
14 are you referring to?

15 A. It's not just one device; right? There are  
16 multiple configurations depending on how you combine  
17 them.

18 So if you look to Stern, our Stern figure  
19 15, for instance, provides one example. Stern figure  
20 5 provides also a more detailed example.

21 Q. So my question was a little bit different.  
22 My question was: What is the device taught by the

1 combination of Makower, Fang, and Edwards '535?

2 MR. NEMTZOW: Same objection.

3 A. There is not one device.

4 Q. Okay. So how many devices are there?

5 A. It could be an infinite.

6 Q. Give me one example of what the device taught  
7 by the combination of Makower, Fang, and Edwards '535  
8 is.

9 MR. NEMTZOW: Objection, form, foundation,  
10 relevance.

11 A. Well, each of those devices -- right? --  
12 requires some sort of way to generate RF energy.  
13 Stern teaches how to do that in a couple of different  
14 ways.

15 Q. I think you're still not understanding my  
16 question. Here you're proposing to incorporate the  
17 teachings from Stern into the device taught by the  
18 combination of Makower, Fang, and Edwards '535;  
19 correct?

20 A. Correct.

21 Q. So I'm talking about, before you're  
22 incorporating Stern, what is the device taught by the

1 combination of Makower, Fang, and Edwards '535?

2 A. I understand. But the same answer applies;  
3 right? You could have an infinite number of devices  
4 and combine them in an infinite number of ways.

5 Q. Okay. I understand what you're saying. Give  
6 me one example of what you're saying the device taught  
7 by the combination of Makower, Fang, and Edwards '535  
8 is.

9 MR. NEMTZOW: Objection, form, foundation,  
10 relevance.

11 A. There is not one device.

12 Q. Can you give me one example?

13 MR. NEMTZOW: Same objection.

14 A. Well, I think that -- are you asking me to  
15 design a new device?

16 Q. I want to know what you meant when you wrote  
17 "the device taught by the combination of Makower,  
18 Fang, and Edwards-535."

19 MR. NEMTZOW: Same objection.

20 A. So you're basically asking me to design a  
21 device here as we sit?

22 Q. I'm asking you, what did you mean when you

1 wrote that? Those are your words; right?

2 A. Yes, yes. So I'm sorry, I lost my place  
3 here. This is Paragraph what?

4 Q. 92.

5 A. 92. Well, there are a couple of instances;  
6 right? But you could take the Makower figure 5H, for  
7 instance, would be one example, combining some  
8 elements of Edwards, and using it like Fang. I mean,  
9 I think that's about as clear as I could be.

10 Q. What Edwards -- what elements from Edwards  
11 are you combining with Makower?

12 MR. NEMTZOW: Objection, form, foundation,  
13 relevance.

14 A. Okay, part of that question is answered in  
15 Paragraph 93. So "Makower specifically teaches 'an  
16 electrosurgical device' with multiple 'bipolar' RF  
17 electrodes on struts that apply current to tissue to  
18 'cause the tissue adjacent to the struts to be  
19 cauterized or heated.' Fang and Edwards similarly  
20 exemplify that applying RF energy to tissue was well-  
21 known, as each references using RF energy to treat  
22 tissue."

1           Q.    So how are you combining Makower with Edwards  
2   '535?

3                   MR. NEMTZOW:  Objection, form, foundation,  
4   relevance.

5           A.    I mean, there's a couple of different ways.  
6   Again, I can't say exactly how.

7           Q.    When you say there's a couple of different  
8   ways that you're proposing to combine Edwards with  
9   Makower, what do you mean by that?

10                  MR. NEMTZOW:  Same objection.

11          A.    There's an infinite number of ways you could  
12   combine these elements of prior art.

13          Q.    In your '077 patent declaration, do you ever  
14   explain how you're combining Makower with Edwards  
15   '535?

16                  MR. NEMTZOW:  Objection, form, foundation,  
17   relevance.

18          A.    The opinion states that they could be  
19   combined.  It doesn't state how they could be  
20   combined.

21          Q.    Does it say that they would be combined,  
22   either?

1 MR. NEMTZOW: Same objection.

2 A. "Would" and "could," yes, I would agree with  
3 that. But it doesn't state the how.

4 Q. So it's fair to say in your '077 patent  
5 declaration you don't state how Makower and Edwards  
6 '535 would be combined; correct?

7 MR. NEMTZOW: Objection, form, foundation,  
8 and relevance.

9 A. How exactly from a device design standpoint.

10 Q. It's fair to say in your '077 patent  
11 declaration you don't state how Makower and Edwards  
12 '535 would be combined; correct?

13 MR. NEMTZOW: Objection, form, foundation,  
14 relevance.

15 A. It states that they could be combined, they  
16 could be combined.

17 Q. Other than stating in your declaration that  
18 Edwards '535 and Makower could be combined -- strike  
19 that.

20 Do you ever opine in your '077 patent  
21 declaration that Edwards '535 and Makower would be  
22 combined?

1 MR. NEMTZOW: Objection, form, foundation,  
2 relevance.

3 A. Yes, in Paragraph 92.

4 Q. Are you talking about the sentence we were  
5 talking about earlier?

6 A. Yes.

7 Q. So it says, "A person of ordinary skill in  
8 the art would have been motivated to incorporate the  
9 teachings from Stern when implementing the device  
10 taught by the combination of Makower, Fang, and  
11 Edwards-535"; correct?

12 A. Well, I'd even start at the beginning of  
13 Paragraph 92, where it says, "Makower discloses  
14 delivering RF energy to tissue using bipolar RF  
15 electrodes, but does not provide details regarding how  
16 to configure its bipolar electrodes. Similarly, Fang  
17 and Edwards- 535 each teach applying RF energy to  
18 tissue, and Edwards-535 teaches an RF generator for  
19 supplying RF energy to multiple electrodes. But each  
20 reference also does not provide details regarding how  
21 to configure RF electrodes."

22 Q. So in your '077 patent declaration, how are

1       you proposing to combine Makower and Edwards '535?

2                   MR. NEMTZOW:  Objection, form, foundation,  
3       relevance.

4           A.     The opinion does not contain a specific  
5       implementation.

6           Q.     Does it contain a general implementation?

7                   MR. NEMTZOW:  Same objection.

8           A.     It does, as described in Paragraph 92.

9           Q.     Where in 92?

10          A.     As I just read.

11          Q.     You just read -- I'm not -- please be a  
12       little more specific.  What exactly are you proposing  
13       to combine from Edwards '535 with Makower?

14                   MR. NEMTZOW:  Objection, form, foundation,  
15       relevance.

16          A.     There's no specific design being proposed in  
17       my opinion.

18          Q.     Okay.  You keep using the word "specific."  
19       So is there a general design being proposed in  
20       Paragraph 92 of your '077 patent declaration?

21                   MR. NEMTZOW:  Same objection.

22          A.     Well, my interpretation of "general" may be

1 different than yours. I think the term "general" is  
2 satisfied by what I have in Paragraph 92.

3 Q. What do you mean by that?

4 A. What do you mean by "general"?

5 Q. I'm trying to use your terminology. You keep  
6 using the word -- you keep limiting your answer to  
7 "specific design." Why do you keep limiting your  
8 answer to "specific design"?

9 MR. NEMTZOW: Objection, form, relevance.

10 A. To an engineer, "specific design" means  
11 working out all of the details that would make that  
12 device work -- wiring diagram, switches, electrode  
13 placements, material structures, methods of adhering  
14 components together.

15 Q. That's what I thought you meant. So now I'm  
16 asking more generally: Is there some general concept  
17 from Edwards '535 that you're proposing to implement  
18 in Makower?

19 MR. NEMTZOW: Objection, form, foundation,  
20 relevance.

21 A. And from specific to general it sounds like  
22 there's a continuum. And in this case my continuum of

1 "general" is represented in Paragraph 92.

2 Q. Okay. But you just keep saying it's in 92.  
3 But please point me to something specific in 92 that  
4 you're referring to.

5 A. I would say my opinion is no more specific  
6 than this.

7 Q. Okay. So outside of Paragraph -- pointing to  
8 Paragraph 92, you can't tell me as we sit here today  
9 how you're proposing to combine Makower with Edwards  
10 '535. Is that accurate?

11 MR. NEMTZOW: Objection, form, foundation,  
12 relevance.

13 A. Beyond 92, no.

14 Q. Okay. How are you proposing to combine  
15 Makower with Fang?

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. Well, if you look at -- well, Paragraph 83,  
19 Fang teaches using radiofrequency to treat rhinitis.

20 Q. I see that.

21 A. A specific medical condition, which I'm not  
22 sure is anticipated in Makower.

1 Q. Okay. So again, how are you proposing to  
2 combine Makower with Fang?

3 MR. NEMTZOW: Same objection.

4 A. I mean, I don't know if it's accurately  
5 represented -- I don't know if it's addressed in the  
6 opinion, but it may be something as simple as using  
7 the device of Makower and the application of Fang.

8 Q. What do you mean, "using the device of  
9 Makower and the application of Fang"?

10 MR. NEMTZOW: Objection, form, foundation,  
11 relevance.

12 A. So Fang used device SHP-1 to perform his  
13 clinical procedure. You can imagine not using SHP-1  
14 but instead using the device of Makower.

15 Q. Okay. So when you discuss the device taught  
16 by the combination of Makower, Fang, and Edwards  
17 '535 -- strike that.

18 So if I understand you correctly, you're  
19 saying that you're proposing to combine Makower's  
20 device with Fang's teaching of using radiofrequency to  
21 treat rhinitis?

22 MR. NEMTZOW: Objection, form, foundation,

1 relevance.

2 A. Yes, and it goes beyond that; right? Because  
3 Fang specifically states not placing the electrodes  
4 closer together than 5 millimeters. So that's  
5 something that Makower doesn't teach, but we can take  
6 that from Fang and develop a device that would treat  
7 rhinitis.

8 Q. So just so we're on the same page: Is it  
9 your testimony today that you're combining Makower  
10 with Fang to use Makower's device to treat rhinitis?  
11 Is that one of the ways you're proposing to combine  
12 those two references?

13 MR. NEMTZOW: Objection, form, relevance.

14 A. That's one way but not the only way.

15 Q. Are you also proposing to combine Makower's  
16 device with Fang's teaching of not placing the  
17 electrodes closer together than 5 millimeters?

18 MR. NEMTZOW: Objection, form, foundation,  
19 relevance.

20 A. Again, that's another teaching that would  
21 have to be considered when designing a device.

22 Q. How else are you proposing to combine

1 Makower's device with Fang?

2 MR. NEMTZOW: Same objection.

3 A. Well, I offer that as an example. Again, I'm  
4 not in a position to redesign a whole medical device  
5 from scratch. But I think that's one example of how  
6 you'd combine the references.

7 Q. Where in your declaration for the '077 patent  
8 do you opine that a POSITA would have combined Makower  
9 with Fang to treat rhinitis?

10 MR. NEMTZOW: Objection, form, relevance.

11 A. That's addressed first in Paragraph 90, 91,  
12 94.

13 Q. Anywhere else?

14 MR. NEMTZOW: Same objection.

15 A. Perhaps elsewhere.

16 Q. As we sit here today, can you point to any  
17 other paragraphs where you address combining Makower  
18 with Fang to treat rhinitis?

19 MR. NEMTZOW: Same objection.

20 A. I think that's it.

21 Q. Let's look at Paragraph 90 of your  
22 declaration first. Where in Paragraph 90 of your

1 declaration do you opine that a POSITA would have  
2 combined Makower with Fang to treat rhinitis?

3 A. I think it's implicit in the reference of  
4 Fang. The word "rhinitis" doesn't appear in this  
5 paragraph, but it does appear in Fang. So it's there  
6 by reference.

7 Q. So you'd agree that in Paragraph 90 of your  
8 '077 patent declaration you don't mention anything  
9 about rhinitis; is that correct?

10 MR. NEMTZOW: Objection, form, relevance.

11 A. Except only by reference.

12 Q. What do you mean, "by reference"?

13 A. Well, I reference Fang.

14 Q. Right. But you don't specifically reference  
15 using Fang to treat rhinitis; correct?

16 MR. NEMTZOW: Objection, form, relevance.

17 A. I believe the only disease Fang mentions is  
18 rhinitis. In fact, it's in the title of his paper.

19 Q. Sure, but Fang also discloses the SHP-1  
20 device, doesn't it?

21 A. Well, but you asked me about treatment, what  
22 is Fang treating, and that's evident in the title of

1 his article.

2 Q. I didn't ask you about treatment. I asked  
3 you how you're combining Makower with Fang.

4 MR. NEMTZOW: Objection, form, relevance.

5 A. Well, you asked me in Paragraph 90 where do I  
6 mention rhinitis, and I don't mention the word  
7 specifically, but I mention Fang, and rhinitis is  
8 mentioned in the title of Fang's reference.

9 Q. So we were supposed to infer from Paragraph  
10 90 of your declaration that you're proposing to  
11 combine Makower with Fang's discussion of treating  
12 rhinitis?

13 MR. NEMTZOW: Objection, form, relevance.

14 A. Yes.

15 Q. Understood. Let's look at Paragraph 91 of  
16 your declaration. Where in Paragraph 91 of your '077  
17 patent declaration do you discuss rhinitis?

18 MR. NEMTZOW: Objection, form, relevance.

19 A. It's not in 91.

20 Q. Okay. You agree that Paragraph 91 of your  
21 '077 patent declaration doesn't mention anything about  
22 rhinitis; correct?

1 MR. NEMTZOW: Objection, form, relevance.

2 A. Correct.

3 Q. And you agree that Paragraph 91 of your '077  
4 patent declaration doesn't mention anything about  
5 combining Makower with Fang's teaching of treating  
6 rhinitis; correct?

7 MR. NEMTZOW: Objection, form, relevance.

8 A. Correct.

9 Q. So again, were we supposed to infer from  
10 Paragraph 91 that your proposed combination of Makower  
11 and Fang is to use Makower's device to treat rhinitis?

12 MR. NEMTZOW: Same objection.

13 A. Only if you read Paragraph 90.

14 Q. Let's go to Paragraph 94. Where in Paragraph  
15 94 do you mention rhinitis?

16 A. It's not specifically mentioned in Paragraph  
17 94.

18 Q. Paragraph 94 doesn't contain the term  
19 "rhinitis" anywhere, does it?

20 A. That is correct.

21 Q. And Paragraph 94 doesn't mention anything  
22 about combining Makower with Fang's teaching of

1 treating rhinitis; correct?

2 MR. NEMTZOW: Objection, form, relevance.

3 A. Correct.

4 Q. So again, were we supposed to infer from  
5 Paragraph 94 that your proposed combination of Makower  
6 and Fang is to use Makower's device to treat rhinitis?

7 MR. NEMTZOW: Same objection.

8 A. Not if you only read Paragraph 94, no.

9 Q. What if you read 94 together with 90 and 91?

10 A. Yes, possibly.

11 Q. Now let's talk about -- you had mentioned  
12 something about not placing electrodes closer together  
13 than 5 millimeters. Do you recall saying something  
14 along those lines?

15 A. Yes.

16 Q. Where in your declaration do you propose  
17 combining Makower with Fang's teaching to not place  
18 the electrodes closer than -- closer together than 5  
19 millimeters?

20 MR. NEMTZOW: Objection, form, foundation,  
21 relevance.

22 A. That was part of my testimony to answer a

1 question that you asked about how we design a device.  
2 That is not addressed in the written declaration.

3 Q. Okay, so your written declaration does not  
4 propose combining Makower with Fang's teaching of  
5 placing electrodes closer together -- let me start  
6 that over.

7 So your written declaration for the '077  
8 patent does not propose combining Makower with Fang's  
9 teaching of not placing electrodes closer together  
10 than 5 millimeters; is that correct?

11 MR. NEMTZOW: Same objection.

12 A. Correct.

13 Q. In this proposed combination you have of  
14 Makower, Fang, and Edwards '535, what is the primary  
15 reference in that combination?

16 A. What do you mean by "primary reference"?

17 Q. The reference that you're then adding onto.

18 MR. NEMTZOW: Objection.

19 Q. Or modifying.

20 MR. NEMTZOW: Objection, form, relevance.

21 A. I'm sorry, I don't understand the question at  
22 all.

1           Q.    In other words, if you were to take a first  
2           reference and then use another reference to modify  
3           that first reference or combine with that first  
4           reference, what I'm saying is, that first reference  
5           would be what I would call the primary reference. Do  
6           you follow what I'm saying?

7                   MR. NEMTZOW:  Objection, form, relevance.

8           A.    I follow what you're saying there.  Now, what  
9           are you asking me?

10          Q.    So in this proposed combination of Makower,  
11          Fang, and Edwards '535, which of those references is  
12          the primary reference in that combination?

13                   MR. NEMTZOW:  Same objection.

14          A.    And by "primary" what do you mean?

15          Q.    Again, what I mean by "primary" is, if you  
16          have a combination of references or you're modifying a  
17          reference in some way, whichever reference you start  
18          with is like your base reference, and then change from  
19          there.  That's what I'm calling the primary reference.

20          A.    So is the primary reference the one that  
21          you're accessing first, or is the primary reference  
22          the one you're accessing the most?

1 Q. I think to answer your question: first. So  
2 it's the base reference that you're then changing or  
3 adding onto.

4 MR. NEMTZOW: Objection, form, relevance.

5 Q. You still seem a little confused.

6 A. I think I understand your question, though.

7 Q. Do you want me to reask the original  
8 question?

9 A. Well, I mean, the answer is: There is no  
10 implied primary reference; right? I mean -- and it  
11 depends exactly what you were implementing as to what  
12 you would apply -- you know, rely on more than the  
13 others.

14 Q. Okay. Let me reask the question, and then  
15 I'll let you go from there.

16 So the question was: In your proposed  
17 combination of Makower, Fang, and Edwards '535, which  
18 of those references is the primary reference?

19 MR. NEMTZOW: Objection, form, relevance,  
20 foundation.

21 A. Okay, primary for rendering my opinion or  
22 primary for if I was to design a device?

1           Q.   Well, you say in Paragraph 92 "the device  
2   taught by the combination of Makower, Fang, and  
3   Edwards-535." So when you mention "the device taught  
4   by the combination of Makower, Fang, and Edwards-535,"  
5   which of those references is the primary reference?

6           A.   Okay. I understand. I did not single out  
7   one to be a primary reference.

8           Q.   When you mention "the device taught by the  
9   combination of Makower, Fang, and Edwards-535," are  
10   you combining Makower with Fang first?

11           MR. NEMTZOW: Objection, form, relevance.

12           A.   By -- I don't understand "combining first."

13           Q.   Are you proposing to combine all three of  
14   those references at the same time?

15           MR. NEMTZOW: Same objection.

16           A.   That would be one way to do it.

17           Q.   Which way are you proposing to do it in your  
18   declaration?

19           MR. NEMTZOW: Same objection.

20           A.   The declaration doesn't propose an order or  
21   weight of combination.

22           Q.   Okay. Let's flip to Page 51. I'm looking at

1 Paragraph 93. I'm looking at about three sentences  
2 down. Do you see where you wrote, "Fang and  
3 Edwards-535 similarly exemplify that applying RF  
4 energy to tissue was well-known, as each reference  
5 teaches using RF energy to treat tissue"? Do you see  
6 that?

7 A. Yes.

8 Q. What do you mean by "to treat tissue"?

9 MR. NEMTZOW: Objection, form, relevance.

10 A. Well, I mean, it's not specific. But, I  
11 mean, in general, applying RF energy and then having  
12 some kind of biological response from the application  
13 of that RF energy.

14 Q. So when you say "to treat tissue," do you  
15 mean some kind of biological response from the  
16 application of the radiofrequency energy?

17 MR. NEMTZOW: Objection, form, relevance.

18 A. Yes.

19 Q. Go ahead and flip to Page 54 for me. Now I'm  
20 looking at Paragraph 95, the last sentence. Do you  
21 see where you wrote, "Stern also provides specific  
22 details regarding how to manufacture and arrange

1 electrodes on the surface of an expandable bladder, an  
2 example of which is shown in Figure 19"? Do you see  
3 that?

4 A. Yes.

5 Q. Why is this opinion relevant to your  
6 analysis?

7 MR. NEMTZOW: Objection, form.

8 A. Well, I mean, it's true; right? And it  
9 provides some prior art information about  
10 manufacturing these devices on an expandable member.

11 Q. Makower doesn't teach an expandable bladder,  
12 does it?

13 A. He has a lot of expandable devices. I don't  
14 know if he calls it a bladder, but he may as a  
15 balloon, which acts as a bladder, I believe.

16 Q. Do you want to point me to that?

17 A. Yes.

18 So figure 5G' and 5G''.

19 Q. I understand from Paragraph 186 of Makower  
20 that referenced numeral 164 is a balloon. Do you see  
21 that?

22 A. Yes.

1 Q. Would you agree with me, if we just talk  
2 about figure 5H of Makower --

3 A. Okay. But there's essentially an expandable  
4 bladder or balloon in 5G.

5 Q. I'm totally with you. So let's move to 5H.  
6 Do you agree that figure 5H does not show an  
7 expandable bladder; correct?

8 A. Correct.

9 MR. NEMTZOW: Objection, relevance.

10 A. Correct.

11 Q. And you agree that in Makower's description  
12 of figure 5H that that description doesn't mention an  
13 expandable bladder or anything like that; correct?

14 A. Correct.

15 Q. Are you proposing to combine Edwards '535 and  
16 Fang with Makower's figure 5G'?

17 MR. NEMTZOW: Objection, form.

18 A. My declaration doesn't contain a specific  
19 proposal like that, but you probably could do that.

20 Q. Okay. Let's just talk about strictly what's  
21 in your declaration. Do you agree that your  
22 declaration doesn't provide any opinions about

1 combining Edwards '535 and Fang with Makower's figure  
2 5G'?

3 A. Correct.

4 Q. And do you agree that your declaration for  
5 the '077 patent doesn't contain any opinions about  
6 combining Fang or Edwards '535 with Makower's figure  
7 5G'?

8 MR. NEMTZOW: Objection, form, relevance.

9 A. Correct.

10 Q. Isn't it true that Makower already teaches  
11 electrodes on an outer surface of the device?

12 A. You're referring to figure 5H?

13 Q. You can start there, yeah. So I guess does  
14 Makower figure 5H teach electrodes on an outer surface  
15 of the device?

16 A. Well, 5H is maybe a little vague in that  
17 regard. It's not clear from Makower exactly where  
18 they are relative to the struts.

19 Q. Okay.

20 A. It just says "electrodes are located on the  
21 strut members."

22 Q. Do you have a position one way or the other

1 whether the electrodes in Makower figure 5H are on the  
2 outer surface of the struts 214?

3 MR. NEMTZOW: Objection, form, foundation.

4 A. Well, it's not clear. I mean, if I were  
5 designing this, I would put them on the outside, yes.

6 Q. Okay.

7 A. As a person skilled in the art, I would put  
8 the electrodes contacting the tissue.

9 Q. Let's start with just what Makower discloses  
10 or teaches.

11 A. Okay.

12 Q. Does Makower disclose or teach that the  
13 electrodes in figure 5H are on the outer surface of  
14 the struts 214?

15 MR. NEMTZOW: Objection, form, foundation.

16 A. He doesn't explicitly say it, but it is  
17 implied; right?

18 Q. Why do you say that?

19 A. Because Makower says in one sentence,  
20 "Electrodes are located on the strut members."  
21 Several sentences later he says, "Thereafter current  
22 is applied to the electrodes, causing tissue adjacent

1 to the struts to be cauterized or heated."

2 So if they weren't on the surface of the  
3 strut, you wouldn't -- they wouldn't contact the  
4 tissue and they wouldn't cauterize it and heat it.

5 Q. So is it fair to say that Makower at least  
6 suggests that the electrodes in figure 5H are on the  
7 outer surface of the struts 214?

8 A. Yes.

9 Q. Are you modifying Makower to have Stern's  
10 electrode configuration?

11 MR. NEMTZOW: Objection, form, relevance.

12 A. I mean, that could be an option. I'm not  
13 suggesting a specific design.

14 Q. Well, again let's just focus strictly on your  
15 opinions in your '077 patent declaration.

16 So in your '077 patent declaration are you  
17 proposing to modify Makower to have Stern's electrode  
18 configuration?

19 MR. NEMTZOW: Objection, form, relevance.

20 A. I didn't specifically address that in the  
21 opinion.

22 Q. So there's no opinions in your '077 patent

1 declaration about modifying Makower to have Stern's  
2 electrode configuration; correct?

3 MR. NEMTZOW: Same objection.

4 A. I think it's implicit that that's an option,  
5 but it doesn't direct that to happen.

6 MR. GILFORD: I'm at a decent stopping  
7 point. Could we go off the record?

8 (Recess taken.)

9 Q. So keeping on Page 54 of your '077  
10 declaration. If you look at the first sentence of  
11 Paragraph 96, do you see you wrote, "Further, a person  
12 of ordinary skill in the art would have also been  
13 motivated to improve Saadat's RF ablation device," and  
14 it goes on?

15 A. Yes.

16 Q. I guess why are you talking about Saadat in  
17 this section?

18 A. I'm not sure.

19 Q. Do you think it was a typo?

20 A. I don't recall.

21 Q. Could you flip to Page 55 of this  
22 declaration.

1           A.    Yes.

2           Q.    And I'm looking at the second sentence of  
3   Paragraph 97.  Do you see where you wrote, "Doing so  
4   would have involved using Stern's known bipolar  
5   pairing technique to fill in details of Makower, Fang,  
6   and Edwards-535, which would have been desirable for  
7   increased safety and control"?  Do you see that?

8           A.    Yes.

9           Q.    Was Makower's device unsafe?

10                  MR. NEMTZOW:  Objection, form, foundation,  
11   and relevance.

12           A.    Well, I mean, ultimately from a patent you  
13   can't determine if a device is safe or not.  Safety is  
14   determined via testing, FDA testing.

15           Q.    Do you have any opinions as we sit here today  
16   on whether Makower was unsafe?

17                  MR. NEMTZOW:  Same objection.

18           A.    In the medical device field you always talk  
19   about making devices safer.  That's always an  
20   objective.

21                  But no, I have no reason to think that  
22   Makower's design is inherently unsafe.

1 Q. Was Fang unsafe?

2 MR. NEMTZOW: Same objection.

3 A. I don't know.

4 Q. So as we sit here today, do you have any  
5 opinions on whether Fang's device was unsafe?

6 MR. NEMTZOW: Same objection.

7 A. No.

8 Q. Was Edwards '535 unsafe?

9 MR. NEMTZOW: Same objection.

10 A. I don't know.

11 Q. As we sit here today, do you have any  
12 opinions on whether Edwards '535's device was unsafe?

13 MR. NEMTZOW: Same objection.

14 A. No.

15 Q. If you continue on the next sentence in  
16 Paragraph 97, do you see where you wrote, "Increased  
17 safety would have been a predictable result from this  
18 combination, as increased control and even tissue  
19 heating would avoid unwanted ablation of adjacent  
20 tissue and over-heating of target tissue"? Do you see  
21 that?

22 A. Yes.

1           Q.    Is it fair to say you agree that Makower  
2 alone would have resulted in unwanted ablation of  
3 adjacent tissue and overheating of target tissue?

4                   MR. NEMTZOW:  Objection, form, foundation,  
5 relevance.

6           A.    In this context I didn't examine Makower  
7 alone.

8           Q.    Do you have any opinions on whether Makower  
9 by itself would have resulted in unwanted ablation of  
10 adjacent tissue and overheating of target tissue?

11                   MR. NEMTZOW:  Same objection.

12           A.    It depends on how the device would be used.

13           Q.    Okay.  So again, the question was:  As we sit  
14 here today, do you have any opinions on whether  
15 Makower by itself would have resulted in unwanted  
16 ablation of adjacent tissue and overheating of target  
17 tissue?

18                   MR. NEMTZOW:  Same objection.

19           A.    No.

20           Q.    Is it your opinion that Fang alone would have  
21 resulted in unwanted ablation of adjacent tissue and  
22 overheating of target tissue?

1 MR. NEMTZOW: Same objection.

2 A. I have no opinion on that.

3 Q. Is it your opinion that Edwards '535 alone  
4 would have resulted in unwanted ablation of adjacent  
5 tissue and overheating of target tissue?

6 MR. NEMTZOW: Same objection.

7 A. No opinion on that.

8 Q. Go ahead and flip to the next page, Page 56.  
9 I'm looking at Paragraph 99, and I'm looking at the  
10 very first sentence of Paragraph 99. Do you see where  
11 you wrote, "Makower and Stern describe similar  
12 objectives, devices, and techniques for delivering  
13 bipolar radiofrequency ablation energy"? Do you see  
14 that?

15 A. Yes.

16 Q. What are the similarities between the devices  
17 disclosed in Makower and Stern?

18 MR. NEMTZOW: Objection, form.

19 A. Well, the next sentence kind of answers your  
20 question: "Both disclose bipolar RF electrodes and  
21 discuss delivering RF energy to tissue."

22 Q. Are there any other similarities between the

1 devices disclosed in Makower and Stern?

2 A. There probably are.

3 Q. Can you name some?

4 A. Off the top of my head, no.

5 Q. I'm looking again a couple of lines down in  
6 the same paragraph. Do you see where you wrote,  
7 "Similarly, Fang and Stern describe similar  
8 objectives, devices, and techniques for delivering  
9 radiofrequency energy, as each both disclose treating  
10 tissue with RF energy"? Do you see that?

11 A. Yes.

12 Q. What are the similarities between the devices  
13 disclosed in Fang and Stern?

14 MR. NEMTZOW: Objection, form.

15 A. I mean, I think both of them describe  
16 techniques for delivering electrical energy to tissue.

17 Q. Are there any other similarities between the  
18 devices disclosed in Fang and tern?

19 MR. NEMTZOW: Objection, form.

20 A. None I can think of off the top of my head.

21 Q. Do the devices disclosed in Fang and Stern  
22 have similar structures?

1 MR. NEMTZOW: Same objection.

2 A. What do you mean, "similar structures"?

3 Q. Well, I guess let me ask a different  
4 question. Do the devices disclosed in Fang and Stern  
5 use similar electrodes?

6 MR. NEMTZOW: Objection, form.

7 A. That I'm not sure.

8 Q. Do the devices disclosed in Fang and Stern  
9 use similar electrode placements?

10 MR. NEMTZOW: Objection, form.

11 A. That I'm not sure about.

12 Q. Do the devices disclosed in Fang and Stern  
13 use similar energy levels?

14 MR. NEMTZOW: Objection, form, foundation.

15 A. That I don't know.

16 Q. Let's flip to the next page, Page 57, and I'm  
17 looking at Paragraph 101, the first sentence. Do you  
18 see where you wrote, "Additionally, a person of  
19 ordinary skill in the art would have expected that  
20 combining pairs of bipolar electrodes as taught by  
21 Stern with an energy source as taught by Edwards-535  
22 would have been successful, straightforward, and would

1 have yielded predictable results"? Do you see that?

2 A. Yes.

3 Q. Do you know whether Edwards '535's energy  
4 source is better than Stern's?

5 MR. NEMTZOW: Objection, form, relevance.

6 A. Well, Stern provides more detail. Stern's  
7 figure 5 includes an incredible amount of detail  
8 regarding his device and how it would be controlled.

9 Q. I guess the question was: Is Edwards '535's  
10 energy source better than Stern's?

11 MR. NEMTZOW: Objection, form, relevance.

12 A. Edwards does not have enough detail to  
13 compare them that way.

14 Q. Is there -- is anything improved by using  
15 Edwards '535's energy source over Stern's existing  
16 energy source?

17 MR. NEMTZOW: Objection, form, relevance.

18 A. I don't think so. I don't know. I mean,  
19 Edwards -- Edwards just doesn't have enough detail to  
20 truly compare them.

21 Q. Okay.

22 MR. GILFORD: Let's go ahead and mark this

1 as Martin Exhibit 8.

2 (Exhibit 8 marked for identification.)

3 Q. So I've drawn another sample circuit for you.  
4 So again, you see there's a circle with two  
5 dotted-line rectangles around it, and then there's  
6 four things there that I labeled 1, 2, 3, 4? Do you  
7 see that?

8 A. Yes.

9 Q. So again assume that the things labeled 1, 2,  
10 3, 4 are electrodes, and for the boxes I drew around  
11 the circle, assume that the two different boxes kind  
12 of designate the ends of two different generators, so  
13 to speak.

14 A. All right.

15 Q. So starting with the rectangle in red around  
16 the circle: Let's start there and assume that that  
17 rectangle in red designates the radiofrequency  
18 generator. Are you with me so far?

19 A. Yeah.

20 Q. So I believe you testified earlier that if  
21 you assume that that red dashed rectangle designates  
22 the radiofrequency generator, that in that case this

1 circuit would have only one radiofrequency hub or  
2 channel; is that correct?

3 MR. NEMTZOW: Objection, form, foundation,  
4 relevance.

5 A. Correct.

6 Q. If you assume that the black dotted rectangle  
7 around the circle is the -- designates the  
8 radiofrequency generator, in that case how many  
9 radiofrequency output channels would you say that this  
10 circuit has?

11 MR. NEMTZOW: Objection, form, foundation,  
12 relevance.

13 A. Two.

14 Q. Why do you say that?

15 A. Well, because this would be one channel, this  
16 would be another channel.

17 Q. So just --

18 A. So each electrode -- each electrode pair, as  
19 you've drawn them, implied, is fed by a channel.

20 Q. So I guess just since the stenographer  
21 can't -- just kind of use like the numbers of  
22 electrodes when you're designating a pair. So I'll

1 let you speak.

2 MR. NEMTZOW: Same objection.

3 A. So the implication here is this would be a  
4 two-channel RF generator.

5 Q. Okay. And then just kind of put into words  
6 what you would say are the two channels, using like  
7 the electrode -- the numbers next to what I'm calling  
8 the electrodes.

9 MR. NEMTZOW: Same objection.

10 A. May I amend your drawing?

11 Q. Yeah. Do you want a red pen?

12 A. So in this case -- right? -- rather than  
13 talking about the electrodes, just talk directly about  
14 the outputs. Right? So you could say A and D form a  
15 channel, and B and C form a channel.

16 Q. Okay. So I guess in this diagram the number  
17 of output channels depends on how you're defining the  
18 radiofrequency generator. Is that fair to say?

19 MR. NEMTZOW: Objection, form, foundation,  
20 relevance.

21 A. I would say you're correct. I mean, the  
22 concept of "channel" is not -- there's no specific

1 definition. But if you ask me as a person skilled in  
2 the art, you know, I would say, yes, the red dotted  
3 line -- the RF generator as defined by the red dotted  
4 line constitutes a one-channel RF generator. The RF  
5 generator constituted by the dark dotted line  
6 constitutes a two-channel RF generator.

7 Q. Okay. And just, you know, kind of -- again  
8 let's assume that the black rectangle is what we're  
9 calling the RF generator. In this circuit -- and  
10 again, assuming the black rectangle designates the RF  
11 generator -- is this circuit able to achieve  
12 independent control of the electrode pairs?

13 MR. NEMTZOW: Objection, form, foundation,  
14 and relevance.

15 A. What do you mean by "independent"?

16 Q. Well, I guess I mean in the same sense that  
17 you kind of use it in your '318 declaration.

18 A. Uh-huh.

19 Q. So I guess I'll just point out an instance of  
20 when you mention that to you, and then we can kind of  
21 go from there. Do you happen to have your '318?

22 A. Yes.

1 Q. If you go to like Paragraph 128 on Page 66.  
2 If you look at the first sentence there, you see you  
3 mention, "Stern's switching mechanism accomplishes  
4 independent activation of each electrode pair," and it  
5 goes on?

6 A. Yes, correct.

7 Q. And then if you also look at Paragraph 130,  
8 about -- like towards the top, there's the number 1 in  
9 parens, and it says, "Delivering bipolar RF energy and  
10 delivering energy to each electrode independently,"  
11 and it goes on. Do you see that?

12 A. Yes.

13 Q. I guess when I refer to -- well, I guess  
14 let's start with this.

15 So again turning back to the diagram that  
16 we've marked as Martin Exhibit 8: Does that diagram  
17 accomplish delivering energy to each electrode  
18 independently?

19 MR. NEMTZOW: Objection, form, foundation,  
20 relevance.

21 A. In the absence of switches, no, it would not.

22 Q. Okay. Why do you say that?

1           A.    Well, if you look at -- so going back to  
2   Stern's figure -- is it 15?  There we have the  
3   switches.  Each electrode can be sort of, if you will,  
4   individually addressed.

5           Q.    Okay.  So if you're unable to address each  
6   electrode individually, then you're not delivering  
7   energy to each electrode independently?

8                   MR. NEMTZOW:  Objection, form, foundation,  
9   relevance.

10          A.    Well, think of it this way; right?  As you  
11   have it configured here -- right? -- there's no  
12   switches.  So once you turn the RF generator on, all  
13   the electrodes are electrified, if you will.

14          Q.    In other words, they're not --

15          A.    They're not independent.

16          Q.    And I guess is it a bad thing that the  
17   electrodes wouldn't be independently receiving  
18   electricity?

19                   MR. NEMTZOW:  Objection, form, foundation,  
20   relevance.

21          A.    Well, Stern's implementation gives you more  
22   control.

1           Q.    And is the absence of that control, I guess,  
2   a bad thing?

3                   MR. NEMTZOW:  Objection, form, foundation,  
4   relevance.

5           A.    In medical devices more control is always  
6   considered better.

7           Q.    I guess would a POSITA have ever implemented  
8   something like that shown in Martin Exhibit 8 in a  
9   medical device?

10                   MR. NEMTZOW:  Same objection.

11           A.    Maybe.

12           Q.    I guess not to belabor the point, but in the  
13   diagram shown in figure 8 -- so for electrodes 1 and  
14   2, is the power split between them?

15                   MR. NEMTZOW:  Same objection.

16           A.    So the answer to that question depends on the  
17   tissue properties.

18           Q.    Okay.

19           A.    So if you -- if your tissue electrical and  
20   thermal properties are completely uniform, then yes,  
21   the power will be split.  To the extent that you have  
22   some heterogeneity in the tissue electrical and/or

1 thermal properties, then no, the power will be  
2 apportioned. That depends on how you're actually  
3 electrifying it. If you have -- how you're  
4 controlling it, if you have a constant voltage or a  
5 constant current or controlling for some other --  
6 controlling temperature or what have you.

7 Q. So I guess when you're talking about  
8 greater -- this concept of greater control, is the  
9 idea that if you have a circuit kind of like that  
10 shown in Exhibit 8, that --

11 I guess can you explain to me in like  
12 simple terms why the circuit shown in Exhibit 8 would  
13 not achieve -- what was the word you used? Constant  
14 control? Constant current?

15 MR. NEMTZOW: Objection, form, foundation,  
16 relevance.

17 A. So what I said was, in medical devices more  
18 control is always considered better, potentially safer  
19 for the patient and potentially more predictable. And  
20 using Stern's implementation, for instance, Stern  
21 gives you that more control, where you can switch  
22 individually to the electrodes and combine them for

1 whatever application you have.

2 Q. So I guess why does that circuit in Exhibit 8  
3 give you less control?

4 MR. NEMTZOW: Same objection.

5 A. In part because, depending on where these  
6 electrodes are, you don't know where they're going to  
7 sit in the tissue, you don't know what the tissue  
8 properties are going to be.

9 If you can individually address them --  
10 let's say, for instance, Stern, he proposes  
11 temperature monitoring -- right? -- combined with the  
12 electrodes. In that case, if you use temperature  
13 monitoring, you can control each one individually  
14 according to a set temperature. You can switch -- I'm  
15 sorry. You could switch, let's say, electrodes 2 and  
16 4 off if they're getting too hot and you could switch  
17 1 and 3 on if they're getting too cold.

18 Q. So I guess why does the inability to switch  
19 in Exhibit 8 give you less control?

20 MR. NEMTZOW: Objection, form, foundation,  
21 relevance.

22 A. So, for instance, you could end up in a

1 situation where -- let's say you apply a constant  
2 voltage to the channel; right? So all four  
3 electrodes, let's say, have the same temperature --  
4 voltage difference.

5 But over here, between 2 and 4, if the  
6 electrical conductivity is higher in the tissue that  
7 happens to be between electrodes 2 and 4, you'll get  
8 more current there, and then you'll get a higher  
9 temperature there. And then you either have to shut  
10 the whole thing down or overheat the tissue in that  
11 case.

12 Q. Okay. So basically, I guess what you're  
13 saying is, the configuration in Exhibit 8 does not  
14 give you the ability to independently control how much  
15 current is going through each electrode pair?

16 MR. NEMTZOW: Objection, form, foundation,  
17 relevance.

18 A. Separately, yes. You can control how much  
19 current -- you could make this RF generator to control  
20 how much current is going through all the electrodes  
21 but not separate them out.

22 Q. Okay. So I guess to rephrase: The

1 configuration shown in Martin Exhibit 8 does not give  
2 you the ability to separately control how much current  
3 is going through each electrode pair.

4 MR. NEMTZOW: Objection, form, foundation,  
5 and relevance.

6 A. Correct.

7 Q. I'm almost done. Do you happen to have,  
8 though, a copy of Stern in front of you, and just  
9 really quick, figure 15?

10 A. Stern?

11 Q. Figure 15.

12 A. Yes.

13 Q. Just to make sure we're on the same page.  
14 Okay.

15 Would you ever close -- would it make  
16 sense to close switch 248 and 246 at the same time?

17 MR. NEMTZOW: Objection, form, relevance.

18 A. Yeah. Why not?

19 Q. Well, I guess let me ask it this way: So if  
20 you close switch 248 and 246 at the same time and you  
21 close switch 236 and 234 at the same time, would you  
22 run into the same issues we were discussing with

1 Exhibit 8?

2 MR. NEMTZOW: Objection, form, foundation,  
3 and relevance.

4 A. Just so I understand, you're proposing we  
5 simultaneously close four switches. The four switches  
6 are 248, 246, 236, and 234?

7 Q. Yeah.

8 A. So you put the switches in place so it  
9 reproduces your drawing here in Exhibit 8 -- it  
10 reproduces the electrical circuit.

11 Q. That's how I imagine it, yeah.

12 MR. NEMTZOW: Same objection.

13 Q. Like, there are still switches there, but  
14 you're closing those four, yeah.

15 MR. NEMTZOW: And I'll object on the same  
16 grounds.

17 A. Okay. So what's the question?

18 Q. The question was: So if you close switch  
19 248, 246, 236, and 234 all at the same time in Stern  
20 figure 15, do you run into the same issues we were  
21 discussing with Martin Exhibit 8?

22 MR. NEMTZOW: Again, same objection.

1           A.    If you implemented figure 15 alone; right?  
2   And that's where figure 5 in Stern -- if you apply  
3   some temperature control, you can at least shut them  
4   all down if you have an overheat or individually shut  
5   them off if you're overheating.

6           Q.    Okay. But again, you had mentioned one of  
7   the issues with Martin Exhibit 8 was the inability to  
8   separately control how much current's going through  
9   each pair. Correct?

10          A.    Yes.

11          Q.    So if you were to close switch 248, 246, 236,  
12   and 234 in Stern figure 15, in that situation, all  
13   four of those switches closed at the same time -- in  
14   that case you would not be able to independently -- or  
15   sorry, you would not be able to separately control how  
16   much current's going through the electrode pairs.  
17   Correct?

18                   MR. NEMTZOW: Same objection.

19          A.    Barring any other monitoring circuitry, yes.  
20   But at least here you have the switches; right? You  
21   can unplug them. You can unplug the electrodes.

22                   MR. GILFORD: I'm so close to the end.

1 Could we just go off the record.

2 (Recess taken.)

3 Q. So Dr. Martin, we obviously had several  
4 breaks during today's deposition. During any of those  
5 breaks did you discuss the substance of your testimony  
6 with anybody?

7 A. No.

8 Q. Did you discuss anticipated future testimony  
9 with anybody?

10 A. No.

11 MR. GILFORD: I have no further questions.

12 EXAMINATION

13 BY MR. NEMTZOW:

14 Q. Dr. Martin, do you recall when Mr. Gilford  
15 asked you some questions about the prosecution history  
16 of the challenged patents yesterday?

17 A. Yes.

18 Q. And do you recall that you testified you had  
19 not reviewed the prosecution history of the challenged  
20 patents?

21 A. Yes.

22 Q. If we can return to your declaration in

1 IPR2024-00278, regarding the '318 patent.

2 A. Yes.

3 Q. And if we can turn to Page 22. Would you  
4 please read the title of Subsection B.

5 A. "An Overview of the Prosecution History of  
6 the '318 Patent."

7 Q. And could you please read Paragraphs 46  
8 through 49.

9 MR. GILFORD: Just to be clear, are you  
10 asking him to read the entire --

11 MR. NEMTZOW: Just take a look at them.  
12 He doesn't have to read them into the record.

13 A. Yes, I've read it.

14 Q. And does this refresh your recollection as to  
15 whether you considered the '318 patent prosecution  
16 history in coming to your opinions on the '318 patent?

17 A. Yes, it does. And I apologize. When the  
18 question was originally asked, I thought he meant the  
19 entire file, the entire patent history file.

20 Q. Did you review the portions discussed in that  
21 part of your declaration?

22 A. Yes, I did.

1 Q. Thanks. And if you could please turn to  
2 Appendix B in the same declaration. If you can take a  
3 look at Exhibit 1003.

4 A. Yes.

5 Q. And what does this indicate about your  
6 consideration of the '318 patent prosecution history  
7 in coming to your opinions on the '318 patent?

8 A. It means that the file history of the '318  
9 patent was considered in formulating my opinion.

10 Q. And if we can turn to your declaration in  
11 IPR2024-00282, regarding the '286 patent.

12 A. Yes.

13 Q. Can you please turn to Page 23 and read the  
14 title of Subsection B.

15 A. "An Overview of the Prosecution History of  
16 the '286 Patent."

17 Q. And can you please read, without reading into  
18 the record, Paragraphs 51 through 54.

19 A. Okay.

20 Okay.

21 Q. Does this refresh your recollection as to  
22 whether you considered the '286 patent prosecution

1 history in coming to your opinions on the '286 patent?

2 A. Yes, it does.

3 Q. And similar to with the '318 patent, can we  
4 please turn to Appendix B, and take a look at Exhibit  
5 1003.

6 Dr. Martin, what does this indicate about  
7 your consideration of the '286 patent prosecution  
8 history in coming to your opinions on the '286 patent?

9 A. It indicates that the file history of the  
10 '286 patent was part of the materials considered in  
11 forming the opinion.

12 Q. Thank you.

13 MR. NEMTZOW: No further questions.

14 FURTHER EXAMINATION

15 BY MR. GILFORD:

16 Q. I think I just have two followup questions,  
17 hopefully pretty brief.

18 Pick up again the '318 declaration, and  
19 turn to that Paragraph 46 again. To be clear, did you  
20 review the entirety of the -- strike that. Did you  
21 review the entirety of the '318 patent prosecution  
22 history, or did you just review the portions of the

1 prosecution history that are cited in your declaration  
2 at Paragraphs 46 to 49?

3 MR. NEMTZOW: Objection, form.

4 A. Yes, I did not review the entire patent file.  
5 I only reviewed those sections referenced in my  
6 opinion, yes.

7 Q. Got it. And just going back to now the '286  
8 declaration, Paragraphs 51 to 54. So a similar  
9 question: Did you review the entirety of the '286  
10 patent prosecution history, or did you just review the  
11 portions of the prosecution history cited on  
12 Paragraphs 51 to 54 of this declaration?

13 MR. NEMTZOW: Objection, form.

14 A. Yes, that's an accurate characterization. I  
15 didn't review the entire patent history file, only  
16 those elements referenced in my opinion here.

17 Q. Okay.

18 MR. GILFORD: No further questions.

19 MR. NEMTZOW: None from petitioners.

20 (The deposition concluded at 12:53 p.m.)

21

22

## 1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

2  
3 I, Alan H. Brock, Certified Reporter  
4 and Notary Public within and for the Commonwealth of  
5 Massachusetts, do hereby certify:

6 That Gregory Thomas Martin, the  
7 witness whose deposition is hereinbefore set forth,  
8 was duly sworn by me before the commencement of such  
9 deposition and that such deposition was taken before  
10 me and is a true record of the testimony given by such  
11 witness.

12 I further certify that the adverse  
13 parties, Neurent Medical Inc. and Neurent Medical Ltd.,  
14 were represented by counsel at the deposition.

15 I further certify that the deposition  
16 of Gregory Thomas Martin occurred at the offices of  
17 Wilmer Cutler Pickering Hale and Dorr on  
18 Wednesday, September 25, 2024, commencing at 9:05 a.m.  
19 to 12:53 p.m.

20 I further certify that I am not  
21 related to any of the parties to this action by blood  
22 or marriage, I am not employed by or an attorney to

1 any of the parties to this action, and that I am in no  
2 way interested, financially or otherwise, in the  
3 outcome of this matter.

4 IN WITNESS WHEREOF, I have hereunto  
5 set my hand this 27th of September, 2024.

6

7 My commission expires:

8 March 25, 2027.

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Alan H. Brock, RDR, CRR

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| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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