1 UNITED STATES PATENT AND TRADEMARK OFFICE

2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3

4 JEISYS MEDICAL INC.,

5 Petitioner

6 V.

7 SERENDIA, LLC,

8 Patent Owner.

9

10 Case IPR2024-00383
Patent No. 9,775,774

11

Case IPR2024-00384
12 Patent No. 9,320,536

13 Case IPR2024-00463
Patent No. 10,869,812

14

15

16 REMOTELY CONDUCTED DEPOSITION OF

17 JEAN WOLOSZKO, Ph.D.

18 Thursday, October 24, 2024

19 9:58 a.m.

20

21 REPORTED BY: KIARA MILLER

22 FILE NO.: 556333

Serendia, LLC
Exhibit 2154
Jeisys v. Serendia
IPR2024-00383

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10 Case IPR2024-00383
Patent No. 9,775,774
11
Case IPR2024-00384
12 Patent No. 9,320,536
13 Case IPR2024-00463
Patent No. 10,869,812
14
15
16
17 Videotaped deposition of JEAN WOLOSZKO, PH.D.,
18 taken on behalf of PATENT OWNER, at REMOTE
19 LOCATION, New York, New York, commencing at
20 9:58 a.m., October 24, 2024, before Kiara
21 Miller.
22

1 A P P E A R A N C E S:
2
3 ON BEHALF OF PETITIONER:
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12 LEONARD Z. HUA, ESQ.
13
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16 200 Clarendon Street
17 Boston, MA 02116
18 EMAIL: CECILIA.PENIZA@LW.COM
19 BY: CECILIA PENIZA, ESQ.
20
21 ALSO PRESENT:
22 ZOOM TECH, MALCOM COOKE

1 TECHNICIAN COOKE: Zoom will now
2 prompt you for your consent to video
3 record this meeting for backup
4 purposes.
5 Thank you to everyone for attending
6 this proceeding remotely, which we
7 anticipate will run smoothly. Please
8 remember to speak slowly and do your
9 best not to talk over one another.
10 Please be aware that we are recording
11 this proceeding for backup purposes.
12 Any off-the-record discussions should
13 be had away from the computer. Please
14 remember to mute your mic for those
15 conversations. Please have your video
16 enabled to help the reporter identify
17 who is speaking. If you're unable to
18 connect with video and are connecting
19 via phone, please identify yourself
20 each time before speaking.
21 We will provide a complimentary,
22 unedited recording of this deposition

1 with the purchase of a transcript. I
2 apologize in advance for any technical
3 related interruptions. Thank you.
4 The court reporter will now swear in
5 the witness.
6 J E A N W O L O S Z K O, PH.D., after having first
7 been duly sworn by a Notary Public of the State of
8 New York, was examined and testified as follows:
9 COURT REPORTER: Please state your
10 name and address for the record.
11
12 THE WITNESS: Jean Woloszko,
13 W-O-L-O-S-Z-K-O, Address is 4 Wren,
14 W-R-E-N, Valley Cove, in West Lake
15 Hills, Texas.
16 EXAMINATION BY
17 MS. PENIZA:
18 Q Good morning, Dr. Woloszko.
19 A Good morning.
20 Q As I mentioned, my name is Cecilia
21 Peniza. I am with Latham & Watkins, and I
22 will be taking your deposition today.

1 You understand that this deposition is
2 for the inter parte review proceedings for
3 the '774, the '536 and the '812 Patents,
4 correct?
5 A Yes, I do. Yes, correct.
6 Q Is there any reason that you cannot
7 testify truthfully today?
8 A No. I'm just want to let you know that
9 I was -- I had some unfortunately food
10 poisoning Tuesday. I was very sick on
11 Tuesday. I almost didn't come. I could
12 barely walk. I came to Chicago anyway, and I
13 feeling better yesterday. A little bit
14 better. I didn't sleep last night for some
15 reason unrelated that I don't know, so I'm a
16 bit tired. But I think I should be okay but
17 just a bit tired.
18 Q Sir, I appreciate that, and I'm so sorry
19 that you had food poisoning. I hope that
20 you're feeling better. It seems like you
21 are. And if at any point during the
22 deposition you need to take break, please let

1 me know, and we'll accommodate things as much
2 as possible so that you can get through it.
3 And hopefully it won't be too painful.
4 A No, and I think it should be okay.
5 Thank you, though.
6 Q Great, great. Where are you located
7 today? You mentioned you're in Chicago.
8 Where in Chicago?
9 A I'm in the Leydig office right now.
10 Q Is there anyone else there with you?
11 A Yeah, Wesley Mueller, as we talked to,
12 and Leonard Hua, H-U-A.
13 Q Are those the only two people with you
14 in the room?
15 A Yes.
16 Q Other than via Zoom, are you
17 communicating with anyone in the room or
18 remotely in any other way?
19 A No.
20 Q The technician mentioned this at the
21 beginning of the deposition, but it's
22 important that we don't speak over each other

1 so that the court reporter can make sure to
2 get my full question and your full answer.
3 So I will do my best not to interrupt, and I
4 just ask that you do the same.
5 A I will do my best. I will make an
6 effort to make sure I speak slowly and that I
7 don't speak over you as well.
8 Q Sounds great. Thank you.
9 Now, this is not the first time that you
10 have testified with respect to validity
11 issues for the '774, the '536 and the '812
12 Patents, correct?
13 A That's correct.
14 Q You were deposed under oath regarding
15 validity issues on three patents in the ITC,
16 right?
17 A Correct.
18 Q And you also testified under oath
19 regarding validity issues related to the
20 '774, the '536 and the '812 Patents at the
21 ITC, correct?
22 A That's correct.

1 Q So we have a pretty significant amount
2 of testimony from you under oath regarding
3 validity issues on those three patents, so
4 I'm going to try to keep this deposition
5 efficient and not rethread through some of
6 the issues that we've gone through before and
7 go through the same realm. So I hope we can
8 get through it efficiently today.
9 A Okay.
10 Q Now, originally, you did not submit
11 declarations with the IPRs for the '774, '536
12 and the '812 when they were originally filed,
13 correct?
14 A Yeah. They were filed original before
15 it was filed by Dr. Berube author it, yes.
16 Q What you did is you submitted a
17 substitute declaration in all three IPR
18 proceedings, right?
19 A That's correct.
20 Q Do you know who worked on the
21 declarations initially?
22 A I know that Dr. Berube worked on it. I

1 don't know with whom he worked on that. I
2 wasn't part of the process, so.
3 Q Did you speak to Dr. Berube regarding
4 his declarations for the '774 --
5 A No. I haven't talked to him.
6 Q Okay. Why don't we put up on the screen
7 and on the chat your substitute declaration
8 for the '774 Patent, which is Exhibit 1025.
9 And for the deposition, we'll mark that as --
10 A I have paper copies of my declaration,
11 my substitute declaration of the patent and
12 all the appendix that were referred in my
13 report here for the three patent.
14 Q Okay. Are there any markings on those?
15 A No. They were printed yesterday. I
16 haven't touched them yet. I have my pen.
17 Now, I may mark them now, but I haven't
18 marked anything.
19 Q Okay. If you do mark them, we may have
20 to introduce those as exhibits, but we can --
21 feel free to use the copy that's being pulled
22 up on the screen or the copy you have in

1 paper. But for the record, I'm at
2 Exhibit 1025, which is --
3 A Sure.
4 Q -- Substitute Declaration for the '774
5 Patent.
6 (Whereupon, Substitute
7 Declaration of Dr. Jean Woloszko
8 in Support of Petition for Inter
9 Partes Review of U.S. Patent No.
10 9,775,774 was marked as Exhibit
11 1 for identification as of this
12 date.)
13 Q If you like, you can refer to the paper
14 copy that you have.
15 A I need to make sure it works. Let me do
16 it again. Okay. I see that document. Okay.
17 It's working.
18 Q Great. I'd like to direct you to
19 Paragraph 22 of your substitute declaration
20 in the '774 Patent, which is at Page 7.
21 Let me know when you're there.
22 A Page 7 -- written as 7. Okay, yeah.

1 Q So just to confirm, in Paragraph 22 you
2 indicated that you reviewed Paragraphs 1
3 through 246 of Dr. Berube's declaration and
4 you agree and adopt Paragraphs 15 through
5 244, correct?
6 A That's correct, yes.
7 Q And in deciding to adopt those
8 paragraphs from Dr. Berube's declaration --
9 and I can refer you to Paragraph 19 of your
10 substitute declaration -- you note that you
11 read and you considered the '774 Patent, its
12 prosecution history, the exhibits listed in
13 the exhibit list filed with the petition for
14 inter partes review of the '774 Patent as
15 well as other materials referenced in
16 Paragraphs 1 through 246 of Dr. Berube's
17 declaration, correct?
18 A That's correct, yes.
19 Q And that is the complete set of
20 materials that you read and considered in
21 adopting Dr. Berube's declaration for the
22 '774 Patent as your own declaration, correct?

1 A Yes.
2 Q Okay. If we can go to Exhibit 1026,
3 which is your substitute declaration for the
4 '536 Patent, please. We can mark that as --
5 A Okay. 536. Um-hmm. I have it here,
6 yes.
7 (Whereupon, Substitute Declaration of Dr. Jean
8 Woloszco for '536 Patent was marked as Exhibit 2 for
9 identification as of this date.)
10 Q So I'll direct you to Paragraph 22.
11 And in it you indicate that you reviewed
12 Dr. Berube's declaration and you agree and
13 adopt Paragraphs 15 through 244 (sic),
14 correct?
15 A That's correct.
16 Q And, again, if we go to Paragraph 19 of
17 your declaration, you note that in deciding
18 to adopt those paragraphs of Dr. Berube's
19 declaration, you read and considered the '536
20 Patent and its prosecution history, the
21 exhibits listed in the exhibit list filed
22 with the petition for inter partes review for

1 the '536 Patent as well as the other
2 materials referenced in Paragraphs 1 through
3 226 of Dr. Berube's declaration, correct?
4 A Yes. Just to go back to the previous
5 question, I mentioned in my report that in
6 Paragraph 184 Dr. Berube mentioned his
7 personal experience with Primaeva/Syneron.
8 That's obviously -- I don't have this
9 experience, but I understand what he said
10 but -- and I agree with his statement, but
11 this is a personal experience, his personal
12 experience.
13 Q But you still agree with and adopt
14 Paragraphs 15 through 244?
15 A Yes.
16 Q Okay. And you based your opinions on,
17 as you note in Paragraph 19 of Exhibit 1026,
18 the materials that he relied on?
19 A Yes.
20 Q And that is, again, the complete set of
21 materials that you read and considered in
22 adopting Dr. Berube's declaration for the

1 '536 Patent as your own?
2 A Yes. Once again, in Paragraph 184, he
3 relies also on his knowledge within the
4 company that I don't have, so I have to
5 believe what he says. He talks about
6 probably confidential information within the
7 company about cost and so on, and that's --
8 you know, I have no reason to doubt it, and
9 it makes sense.
10 And my experience -- and my personal
11 experience will corroborate with that, but I
12 cannot rely on the material he used for that,
13 as I don't have access with information
14 directly.
15 Q So other than the materials regarding to
16 Primaeva experience that Dr. Berube has, you
17 did not consider any other materials outside
18 of what he relied on to form your opinions
19 and adopt his declaration as your own?
20 A No. Except my personal experience
21 obviously.
22 Q If we can go to Exhibit 1021, which is

1 your substitute declaration for the '812
2 Patent.
3 Again, same questions. I'll direct you
4 to Paragraph 22, where you note that you
5 agree with and adopt Paragraphs 17 through
6 269 of Dr. Berube's declaration.
7 (Whereupon, Substitute Declaration of Dr. Jean
8 Woloszco for '812 Patent was marked as Exhibit 3 for
9 identification as of this date.)
10 A Yes, with the same reserve here to
11 Paragraph 179, where he basically rely on his
12 personal knowledge of internal information
13 from Syneron -- Primaeva/Syneron that I
14 didn't have direct access to, but I still
15 stand behind this statement.
16 Q Okay. And, again, looking at
17 Paragraph 19 you note that in deciding to
18 adopt Dr. Berube's declarations, you read and
19 considered the '812 Patent, its prosecution
20 history, the exhibits listed in the exhibit
21 list filed with the inter parte review
22 petition for the '812 as well as other

1 materials referenced in Paragraphs 1 through
2 272 of Dr. Berube's declaration, correct?
3 A That's correct.
4 Q You did not review any other materials
5 outside of what he listed, and that is the
6 complete set of materials that you read and
7 considered in adopting his declaration for
8 the '812 Patent, correct?
9 A That's correct.
10 Q So staying with the '812 Patent, if we
11 can pull up Dr. Berube's declaration, which
12 is Exhibit 1003 for the '812 Patent.
13 MS. PENIZA: We can mark that as
14 Exhibit 4.
15 (Whereupon, Declaration of Dany
16 Berube in Support of Petition
17 for Inter Partes Review of U.S.
18 Patent No. 10,869,812 was
19 marked as Exhibit 4 for
20 identification as of this date.)
21 A I have it open here, yes.
22 Q Yeah, please feel free to use your paper

1 copy.
2 MS. PENIZA: Just for the record, that
3 will be, I believe, Exhibit 4 of the
4 depo.
5 TECHNICIAN COOKE: Yes, Counsel.
6 Q Okay. So if we go to Dr. Berube's
7 declaration for the '812 Patent Section 4.
8 I'll give you a moment to get there.
9 A Section 4. Can you give me the page?
10 Q Yes. Yes --
11 A Okay. Page 9.
12 Q Yes, Page 9.
13 So Section 4 provides the legal
14 standards for Dr. Berube's declaration that
15 you adopted, correct?
16 A That's correct.
17 Q And in Paragraphs 19 through 22 of the
18 declaration, the standard with respect to the
19 law that you applied for obviousness are
20 listed and described, correct?
21 A Nineteen, yes, that's -- that is
22 correct, yes.

1 Q And looking at Paragraph 20, there are
2 specific factors that you opine should be
3 considered when determining whether or not a
4 claim is obvious, correct?
5 A Yes, that's correct.
6 Q The factors listed include the level of
7 ordinary skill in the art at the time the
8 application was filed, the scope and content
9 of the prior art and what differences, if
10 any, existed between the claimed invention
11 and the prior art, correct?
12 A Yes.
13 Q If you look through Paragraph 19 through
14 22 of the declaration for the '812 Patent,
15 there is no reference through objective
16 indicia of nonobviousness or secondary
17 considerations of nonobviousness, correct?
18 A Let me read again. That is correct.
19 Q In Paragraphs 19 through 22, there is
20 also no reference to commercial success,
21 long-felt but unsolved needs or failure of
22 others, correct?

1 A Verify that it's not there again.
2 That is correct.
3 Q In fact, there's nowhere else in the
4 paragraphs of Dr. Berube's declaration that
5 you adopted for the '812 Patent that
6 addresses objective indicia of nonobviousness
7 or secondary considerations of
8 nonobviousness, such as commercial success,
9 long-felt but unsolved needs or failure of
10 others, correct?
11 A That is correct.
12 Q If we can go to the next exhibit, which
13 will be Exhibit 5. It will be Exhibit 1003,
14 Dr. Berube's Declaration for the '536 Patent.
15 (Whereupon, Declaration of Dany
16 Berube In Support of Petition
17 for Inter Partes Review of U.S.
18 Patent 9,320,536 was marked as
19 Exhibit 5 for identification as
20 of this date.)
21 A So for which patent?
22 Q '536.

1 A Okay. Sorry.
2 Q No problem. Let me know when you're
3 there. So I will direct you again to
4 Section 4, which is on Exhibit Page 11 but
5 PDF Page 7, depending on which number you're
6 looking at. But it's Section 4 of the
7 declaration, Legal Standards.
8 A Yes. Let me see where it is.
9 Section 4, yes, okay. Page 7, yes.
10 Q So looking at Paragraphs 20 through 26
11 of Dr. Berube's declaration which you adopted
12 for the '536 Patent, those paragraphs state
13 the understanding of the law that you applied
14 for obviousness, correct?
15 A That is correct.
16 Q And if we go to Paragraph 21, you list
17 out several factors that one should consider
18 when determining whether or not a claim is
19 obvious, correct?
20 A It is correct, yes.
21 Q And those factors include the scope and
22 content of the prior art, the level of

1 ordinary skill in the art, the differences
2 between the claimed invention and the prior
3 art and any secondary considerations that may
4 serve as evidence of nonobviousness, such as
5 commercial success, long-felt but unsolved
6 needs and failure of others, correct?
7 A That is correct.
8 Q There is nowhere else in the paragraphs
9 of Dr. Berube's declaration that you adopted
10 that addressed secondary considerations, such
11 as commercial success, long-felt but unsolved
12 needs or failure of others, correct?
13 A These have not been addressed in this
14 report.
15 Q You also did not address secondary
16 considerations in your substitute
17 declaration, correct?
18 A That is correct. I was not asked to
19 provide it, yeah.
20 Q If we go to Exhibit 6, which will be
21 Exhibit 1003, Dr. Berube's Declaration for
22 the '774 Patent that you adopted.

1 I will, again, refer you to Section 4
2 for the legal standards, which starts at
3 Page 7.
4 Going to Subsection D, which is the
5 section addressing obviousness, Paragraphs 20
6 through 26, state the understanding of law
7 that you applied for obviousness, correct?
8 A That is correct.
9 Q And Paragraph 21, again, lists specific
10 factors that one should consider when
11 determining whether or not a claim is
12 obvious, correct?
13 A That is correct.
14 Q And those factors that you list out
15 include the scope and content of the prior
16 art, the level of ordinary skill in the art,
17 the differences between the claimed invention
18 and the prior art, and any secondary
19 considerations that may serve as evidence of
20 nonobviousness, such as commercial success,
21 long-felt but unsolved needs, and failure of
22 others, correct?

1 A That is correct.
2 Q So you understand that evidence of
3 secondary considerations is a factor that is
4 considered when determining obviousness,
5 right?
6 A I do.
7 Q And there's nowhere else in the
8 paragraphs of Dr. Berube's Declaration that
9 you adopted that address secondary
10 considerations, such as commercial success,
11 long-felt but unsolved needs, nor failure of
12 others, correct?
13 A That is correct.
14 Q Do you recall that you did not address
15 secondary considerations of nonobviousness in
16 your expert reports at the ITC?
17 A That is correct. I did not address
18 those, as well.
19 Q And you attended the evidentiary hearing
20 at the ITC investigation, correct?
21 A I attended most of it, yes.
22 Q Were you there for the portion of the

1 hearing where Serendia presented evidence of
2 secondary considerations such as commercial
3 success, long-felt but unsolved needs, and
4 failure of others?
5 A I believe I was present. I know I had
6 to step out for some time, and I don't
7 remember if it was during that time or not,
8 but...
9 Q But you recall that Serendia presented
10 evidence of secondary considerations, such as
11 commercial success, long-felt but unsolved
12 needs, and failures of others during the ITC
13 hearing, correct?
14 A Yes.
15 Q I'd like to switch gears and talk about
16 some of the prior art that you relied on for
17 your opinions on these IPR proceedings.
18 If we go to Exhibit 7, which will be the
19 '774 Institution Decision.
20 (Whereupon, Decision Granting
21 Institution of Inter Partes
22 Review 35 U.S.C. 314 was marked

1 as Exhibit 7 for identification
2 as of this date.)
3 A Okay. I don't think I have this one
4 here, download it I will look at it.
5 Q Yes, otherwise we put it on the chat and
6 we'll put it on the screen, as well.
7 A One, two, three, four, five, six. Okay.
8 It's not there yet.
9 Okay.
10 Q Have you reviewed the institution
11 decision for the '774 Patent?
12 A Let me make sure I read the document and
13 we talk about the same document.
14 Yes. I have.
15 Q I'd like to direct you to Page 14.
16 A Okay.
17 Q That first full paragraph towards the
18 end, the board states that, "Mehta discloses
19 an embodiment that includes depth markings on
20 the needles, i.e., probes that allow the user
21 to determine a desired depth of the needles."
22 Do you see where I'm reading?

1 A This is the last paragraph?
2 Q The first full paragraph.
3 A Yes, as Jeisys also note, Mehta may
4 disclose another embodiment depicted in
5 figure. Yes, I have this, yeah.
6 Q Go up a little further on the page, so
7 I'm referring to the portion where right --
8 in the first full paragraph right before the
9 first full quote.
10 "For example, as Jeisys notes,
11 Mehta discloses an embodiment that
12 includes depth markings on the
13 needles."
14 Do you see where I'm reading?
15 A Yes. Um-hmm.
16 Q Okay. And if we look at the quote from
17 Mehta that the board relies on, the board
18 emphasized the language, stating that, "The
19 probe can be marked with one or more features
20 that allow the physician to determine the
21 depth of insertion of the probe."
22 Do you see where I'm reading?

1 A Yes. Um-hmm.
2 Q Now, this description in Mehta of manual
3 adjusting -- it's a description that refers
4 to manually adjusting the probes by the
5 physician, correct?
6 MR. MUELLER: Objection to form.
7 A I would have to look into Mehta exactly
8 to see in which context this was written. As
9 the quote is, it just provides the depth
10 marking, it just indicates the depth of the
11 needle. I cannot -- I need to look at Mehta
12 exactly to tell you in which context, if it's
13 about manually changing or not, I don't
14 recall the detail.
15 Q Okay. We'll get to Mehta in a second,
16 but in terms of the probes being marked with
17 some kind of feature to provide information
18 about the depth of insertion of the probe, a
19 person of ordinary skill in the art would
20 need sufficient time to observe those depth
21 markings to use them efficiently and
22 determine whether or not the probes would

1 need to be relocated, correct?
2 MR. MUELLER: Objection to form.
3 A So a person of ordinary skill in the art
4 is not the user. So I cannot -- I don't
5 think in the form this is -- a person of
6 ordinary skill in the art is more of a person
7 who would design, so it's not the user.
8 So users who experience, normally they
9 can be very fast. They -- those type of
10 marking are used very, very frequently on
11 devices and whether it's a nurse or a
12 physician that use those things, they are
13 usually. And I have personally designed and
14 I'm still designing products with those marks
15 and they seem to be very efficient to provide
16 education to physicians.
17 It doesn't take long for them to see
18 where they are. But this is not the only way
19 Mehta mentioned indicating the depth, though.
20 Q So I want to focus on the depth markings
21 that Mehta discloses and we can start with
22 the user.

1 A user would need sufficient time to
2 observe the depth markings to use them
3 effectively, correct?
4 MR. MEULLER: Objection to form.
5 A Again, as I said, experience users are
6 able to see them very quick. So sufficient
7 time, it's undefined -- it's not a very
8 defined characterization if they can do it
9 quickly. So if half-a-second is time, you
10 know, it may be faster. So I cannot give you
11 an idea of time. I know they are fast, I'd
12 hope so, then they go very fast. So it's --
13 with many people, it's almost instantaneous.
14 Q They would at least need a second to
15 look at those markings?
16 A No, it can be less than a second. I've
17 seen people do it faster than that. I cannot
18 give a quantification, but it does not take a
19 full second, no. A second can be a long
20 time.
21 Q One second is a long time?
22 A Yeah, for some people, yes. As you

1 know, surgeon don't have much patience; for
2 them, a second is a long time. You can talk
3 to many nurses, they will tell you about it.
4 Q If we look at a portion of Mehta that
5 the board is quoting at Page 14, and that
6 portion is Column 13, Lines 37 through 45.
7 A Okay. Let me open Mehta.
8 Q We can mark Mehta, but I'm just focused
9 on the specific portion that's quoted in the
10 board's decision --
11 A Okay.
12 Q -- where you are on the page?
13 A Sorry. Say it again, which?
14 133745, yes.
15 Q I think we're speaking over each other.
16 So let's make sure that we slow down a little
17 bit here so we make sure we're on the same
18 page.
19 We look on Page 14 of the institution
20 decision for '774 Patent, the board relies on
21 Mehta, Columns 13, Lines 37 through 45,
22 correct?

1 A Yes, I was asking you to verify, yes.
2 Q And that portion of Mehta has no
3 description of adjusting the probe depth by
4 other device, such as a motor, correct?
5 MR. MEULLER: Objection to form.
6 A The quote mentioned here, but I would
7 have to look at the context on this column to
8 say you -- what -- what is written in the
9 quote on Page 14 doesn't mention that. But I
10 need to the text within the context and read
11 the whole Column 13; what's above and below
12 those lines to fully answer your questions.
13 Q We'll go to Mehta in a second, but
14 generally speaking, probes being marked and a
15 physician being allowed to determine the
16 depth of insertion of a probe would not use
17 of motor, correct.
18 MR. MEULLER: Objection to form.
19 A I cannot answer your question.
20 Generally speaking, it doesn't mean that, no.
21 I wouldn't agree with you.
22 Q You need a motor to determine

1 observation of the markings of the probes
2 inside the tissue?
3 A I think you asked me a second question
4 here, a different question. You said the
5 marking doesn't involve a motor.
6 Actually, the marking involves a motor,
7 it's usually laser marked and it's made with
8 a various motor.
9 But you mean using the marking for the
10 user, if -- obviously the needle inserted
11 with a motor, the motor is involved in the
12 process of inserting the needle to the depth.
13 So I'm not sure the observation itself,
14 for the user to look at the marking, does not
15 involve the motor to observe, but for the
16 needle to go -- to be where they are, or to
17 be adjusted may or may not involve a motor;
18 it's two independent things.
19 Q Why don't we go to Mehta Column 13, so
20 that we can make sure that I'm getting an
21 answer to my question.
22 And that will be Exhibit 8. It's

1 Exhibit 1004 of Mehta.
2 A Yes.
3 (Whereupon, U.S. Patent No.
4 8,608,737 B2 Mehta et al. was
5 marked as Exhibit 8 for
6 identification as of this date.)
7 Q We were referring to Column 13, so I'll
8 give you a moment to get there.
9 A Yes.
10 Q Let me know when you're there.
11 A Yes. I'm there.
12 Q Okay. So back to my question.
13 The board's position for the '774 Patent
14 refer to Column 13, starting at Line 37, with
15 respect to the markings on the probes.
16 Looking at that description of Mehta,
17 what Mehta provides is a way for the
18 physician to observe the depth of insertion
19 of the probes and make adjustments if
20 necessary, correct.
21 A What -- if you read the -- a few lines
22 above, I would say Line 28, it mentions the

1 physician can rely upon the stabilization
2 plate and the feature on the needles and part
3 of those number of needles to confirm the
4 intended treatment area and other body
5 structures where a treatment would be
6 undesirable. As opposed to this very far
7 that the needle are in the desired depth or
8 location.
9 Q Again, so Mehta is providing a means to
10 confirm the location of already inserted
11 needles via, for example, depth markings,
12 correct?
13 A Mehta is providing you the means to
14 verify the needles are in the desired
15 location or desired depth.
16 Q That portion of Mehta doesn't describe
17 using a motor to, then, make adjustment to
18 the probe depth, correct?
19 A Below in the column by, basically,
20 Page 48, the motor is mentioned. So
21 obviously the text, the small paragraph you
22 mentioned talks about feature. But a few

1 lines below, at the Line 58, as showing the
2 system can include an actuator to 50 within
3 the device body that can be coupled to an
4 earlier probe, et cetera, et cetera.
5 So the motor is mentioned, the actuator,
6 which is detailed a bit further more, as
7 well, is mentioned in the same column a few
8 lines below.
9 Q Sure. A motor is used to drive the
10 needles into tissue. I think we agree on
11 that, correct?
12 A Yes, um-hmm. Sorry. I apologize.
13 Go ahead.
14 Q My apologies. Let's start again.
15 Once the needles are in the tissue, the
16 physician can use depth markings on the
17 needles to determine if they are in the
18 correct location, correct?
19 A It can use -- this is one way. This is
20 one way for the physician to verify that the
21 needles is -- the needles are deployed in the
22 desired depth, desired location.

1 Q And if they are not in the desired
2 location, the physician has to reposition the
3 needles, correct?
4 A This is not in this part. There are
5 several other places in the text where Mehta
6 mentioned that the system has the ability to
7 move the electrode forward to detract them in
8 a controlled fashion.
9 Q What portion of Mehta are you relying on
10 for that opinion?
11 A I would have to go through those. I
12 apologize. This is a long patent, and I...
13 For instance, one example if, Column 31,
14 Line 37 to 45:
15 "The sensing of tissue parameters
16 is not limited to only sensing prior to
17 treatment."
18 So the system it's sensing prior
19 to treatment to make sure that
20 electrodes are at the right location,
21 for instance. And then you say you can
22 adjust the doing -- tissue parameters

1 can be manipulated during treatment to
2 make changes and adjust treatment.
3 That's one parameters, adjusting
4 treatment, includes -- I'll read the RF
5 of Mehta, but may also include the
6 depth.
7 Q How do you know that it includes the
8 depth?
9 A It's not limited, treatment parameters.
10 The depth is one of parameters of the
11 treatment. Obviously, you have the RF -- the
12 RF parameter and the location of treatment;
13 this is all the treatment parameters.
14 Q Looking at Column 31, which is where you
15 pointed.
16 A Yes.
17 Q "Mehta indicates, for example" -- I'm at
18 Line 49:
19 "For example, measurement of the
20 parameter can be used to track the rate
21 of change of the parameter and control
22 energy delivery to maintain the rate of

1 change to a tolerable level."
2 Do you see where I'm reading?
3 A Sorry, at what line are you?
4 Q Starting Line 49, Column 31.
5 A Yes.
6 Q So Mehta, in this portion notes, that
7 you can measure tissues parameters and make
8 changes to, for example, control energy
9 delivery, correct?
10 A For example, yes.
11 Q In these examples, controlling the depth
12 is not expressly mentioned, correct?
13 A It mentions treatment parameters. He --
14 it gives one example. It doesn't expressly
15 address any -- all the parameters or all the
16 parameters, expect a few, yes.
17 Q Following to the next portion of
18 Column 31, Line 52:
19 "If the parameter is temperature
20 and it is known that an increase in
21 temperature of 1 degree centigrade per
22 second is tolerated by the patient's

1 nervous system, and an increase of
2 3 degrees centigrade is not well
3 tolerated, the measured temperature can
4 be used to deliver energy in a manner
5 that limits temperature rise to
6 approximately 1 degree per second."
7 Do you see where I'm reading?
8 A Yes.
9 Q So tissue parameters, temperature and
10 energy delivered, are expressly mentioned in
11 Mehta to perform adjustments, correct?
12 A He also mentions impedance at other
13 locations, and impedance is -- he mentioned
14 that impedance is related to the depth. So
15 because we know very well, it's well known
16 for person of skill in the art, that the
17 dermis, hypodermis or epidermis have
18 different impedance. So this is also
19 mentioned in other place in the patent.
20 Q Let me switch gears, because I think my
21 question was with respect to the motor and
22 whether or not a physician uses a motor to

1 make adjustments.
2 So, again, we agree that Mehta discloses
3 using a motor or an actuator to drive the
4 needles into the tissue, correct?
5 A That's correct.
6 Q Mehta does not disclose how to program
7 the system to extend needles any specific
8 distance using that motor or other mechanism,
9 correct?
10 MR. MEULLER: Objection to form.
11 A He -- I know because he -- even if he
12 meant when you use a cartridge, the motor has
13 to stop at some -- the extension and -- doing
14 the retraction and the extension, it's a
15 limit. You cannot keep powering the motor,
16 if not, you either break the cartridge or
17 break the cartridge or burn out the motor.
18 So the system has to stop. So,
19 obviously, when you actuate needle with the
20 motor, it has to be program, and program
21 doesn't mean only software, program is a
22 broad term, but there is a mechanist, whether

1 it's software, hardware, or any other ware,
2 to let the motor know when to stop, so this
3 is program the motor.
4 Q My question was, Mehta does not disclose
5 how to program the system to extend needles
6 any specific distance using a motor or
7 mechanism, correct?
8 MR. MEULLER: Objection to form.
9 A Mehta mentions that various cartridges
10 have different depths. And, therefore,
11 various cartridges will program the motor to
12 different depth.
13 Q So the only way that you can program the
14 motor in Mehta to extend needles a specific
15 distance is by selecting different cartridges
16 that have different needle lengths, correct?
17 MR. MEULLER: Objection to form.
18 A No. Because Mehta also mentioned that
19 the motor can overextend and then retract the
20 needles. So there are obviously other ways
21 for the motor to actuate the needles.
22 Q But that also would be based on the

1 specific cartridge that is being selected,
2 correct?
3 A Doesn't have to be. Because if you
4 extend it and then retract it, obviously you
5 apply the treatment, when you apply the
6 treatment you are not in the mechanical
7 limitation of the cartridge. So there is
8 something else to provide that.
9 It doesn't specifically describe the
10 algorithm used for that, but he mentioned a
11 needle can be basically adjusted precisely.
12 And he mentions stepping, basically using the
13 stepping motor, which is a very precise
14 distance forward or backward to extension or
15 retraction.
16 Q In your declaration you don't point
17 anywhere in Mehta disclosing any specific
18 programming or algorithm used to extend the
19 needles a specific distance using a motor or
20 mechanism, correct?
21 A As I said, it's not in the declaration,
22 and Mehta does not provide the detail of the

1 algorithm used, but this would be routine
2 engineering, depending on the type of step
3 motor controller or even DC motor controller,
4 whether you use a servo motor or not servo
5 motor.
6 There are many ways, which is very well
7 known in the arts, how to control that. I
8 think this is basic engineering, routine
9 engineering to do this programming. And it's
10 not the object of Mehta's patent, no.
11 Q I want to make sure that we are --
12 A Actually --
13 Q Let me make sure I ask my question. I
14 want to make sure that we're referring to the
15 same thing.
16 A motor extending needles, it's their
17 full length -- let me strike that.
18 Programming a motor to extend needles
19 their full length is not the same as
20 programming a motor based on input parameters
21 that dictate how far the needles should
22 extend, correct?

1 A What is full length, is full length when
2 you get to make an equal limit or the full
3 length is it the depth the -- full length is
4 the length, the desired length.
5 In any case, you need to have a way to
6 make the system stop. You can rely on
7 various feedback, and if you use a stepper
8 motor, because those motors have a very high
9 torque, you usually don't limit yourself to
10 reaching a mechanical limitation because
11 those actually overstress the motor. So a
12 person of skill in the art, we use some other
13 indication to make sure you reach this full
14 deployment. And, therefore, then the
15 programming, the way the stepper motor
16 controller or DC or servo motor controller
17 works, would use other information to adjust
18 to full extension to make an equal lock, so
19 it can be very similar algorithm control.
20 Q That was not my question and that was
21 not responsive at all to the question that
22 I've asked.

1 I'm going to move on, Dr. Woloszko. If
2 we can go back to Exhibit 7, which is the
3 institution decision for the '774 Patent.
4 A Yes.
5 Q I'm again on Pages 14 and 15.
6 A This is the -- oh, so we went right
7 here. Institution -- yeah -- I don't have it
8 here, it's on my -- seven, yes. Okay what
9 page you said, I'm sorry?
10 Q Fourteen and 15.
11 A Okay. Yes.
12 Q So at the bottom of 15, top of -- excuse
13 me, at the bottom of Page 14, top of Page 15,
14 the board refers to the graphical user
15 interfacing Mehta, and those features, and
16 noted that they allow the user to monitor the
17 needle's actual location in the tissue and
18 advance the needle at desired distance for
19 providing treatment, correct?
20 A That's correct.
21 Q And if we look at the portion of Mehta
22 that the board is relying on, which is

1 Column 32, Line 46 through Column 33, Line
2 29, it's on the institution decision. I'll
3 give you a moment to look through that, but,
4 again, this is another description in Mehta
5 that refers to confirming the location of the
6 probes once they are already inserted into
7 tissue, correct?
8 MR. MEULLER: Objection to form.
9 A That's verification that the needles are
10 deployed in the desired location, yes.
11 Q Okay. And that portion of Mehta that
12 refers to the physician would be informed
13 that further advancement of the probes is
14 necessary to place the probes within a
15 different layer of the dermis, there's
16 nothing in that portion of Mehta referring to
17 using a motor or other mechanism to perform
18 that further advancement of the already
19 inserted probes, correct?
20 MR. MEULLER: Objection to form.
21 A What line are you referring to here and
22 what column?

1 Q I'm on Column 33, Line 24.
2 In that portion Mehta refers to the
3 physician being informed that further
4 advancement of the probes is necessary to
5 place the probes within the different layer
6 of the dermis, but there is nothing in Mehta
7 indicating that a motor or other mechanism
8 would be used to perform that further
9 advancement of the already inserted probes,
10 correct?
11 MR. MEULLER: Objection to form.
12 A Obviously the needle linked to the
13 motor, so it doesn't describe any other way
14 to advance a needle than by the motor. So a
15 person of skill in the art would assume that
16 the only way to advance the needle further is
17 using the motor, and I don't know how, what
18 other mean you could use in this case or
19 retracting you can obviously pull the device
20 out.
21 Q That's not my question.
22 My question is, that portion of Mehta

1 does not refer to using a motor to perform
2 further advancement of the already inserted
3 probes, correct?
4 A Again, you take a small sentence within
5 the context, in the context, needles are
6 basically advanced with a motor. In this
7 sentence the motor is not mentioned but it
8 implies that the motor is used to move the
9 needles.
10 Q In that example where the needles would
11 be fully extended and further advancement of
12 the probes is necessary, in Mehta you would
13 just select a different cartridge with longer
14 needles to reach that target region of the
15 dermis, correct?
16 A If the cartridge you used does not allow
17 to go deeper, so if the physician selected
18 the wrong cartridge and he realized he wants
19 to go deeper then obviously you would have to
20 use another cartridge as described in Mehta.
21 It's the same with any system, it has its
22 limitation, and if you want to exceed the

1 specification, you need to be consistent or a
2 different cartridge.
3 Q Dr. Woloszko, I'm losing you a little
4 bit. You sound really far away.
5 A Oh, I'm sorry. Let me move the
6 microphone here.
7 Can you hear me better now?
8 Q I can. Thank you.
9 A Yes. I'm sorry. Yes. What I'm saying
10 is, every mechanical system has its
11 limitation. The physician select the
12 cartridge, which allows the range of depth or
13 the range of depth or distance that he
14 believes are adequate or for the treatments,
15 and obviously if he selected the wrong depth,
16 if he limits the range by using the wrong
17 cartridge, then he may have to use a
18 cartridge that refers a different range of
19 depth. But that's the same with any system.
20 Q I'm focused on the actual disclosures in
21 Mehta. So I'm not referring to any other
22 system.

1 A Yes.
2 Q In Mehta specifically the portion that
3 refers to the physician being informed that
4 further advancement of the probes is
5 necessary does not mention at all using a
6 motor to perform the further advancement of
7 the already inserted probes, correct?
8 A Once again, the old patent mentioned a
9 motor to advance the probe. So although the
10 motor is not in every sentence of the patent,
11 it is obvious for somebody skilled in the
12 art, when you read that, the motor is the
13 only way to advance the probe. I don't know
14 how else you could advance the probe if you
15 don't use the motor.
16 Q I'm not talking about advancement. I'm
17 talking about further advancement. So I want
18 to make sure that we're precise in what we
19 are --
20 A Further advancement. So advancement is
21 part of further advancement. You cannot
22 further advance or advance the probe without

1 a motor in Mehta system as the probe -- if
2 you look at the way he shows the interlock
3 between the drive shaft of the motor and the
4 needle module, the only way to move them is
5 by advancing the motor.
6 Q Again, I don't think that anybody
7 disputes that a motor is used to advance the
8 probes. My question is different.
9 There is nothing in Mehta disclosing how
10 to program a motor or an algorithm that is
11 used to program the motor that is used to
12 extend needles a very specific distance using
13 a motor, correct?
14 MR. MEULLER: Objection to form.
15 A He mentioned advancing the probe further
16 and then retracting. So he mentions that the
17 motor or the system or the capability to
18 precisely advance and retract the needle at a
19 specific distance.
20 Q I'm going to ask my question again.
21 There is nothing in Mehta disclosing how
22 to program a motor or other mechanism to

1 extend the needles any specific distance
2 using a motor or other mechanism, correct?
3 MR. MEULLER: Objection to form.
4 A I say the same response. Mehta
5 discloses that the motor can be programmed to
6 advance and retract.
7 Q Where is that program disclosed in
8 Mehta?
9 A If a motor advance and retract, it has
10 been programmed to do that. It doesn't do it
11 by magic.
12 Q I'm not talking about a motor advancing
13 and retracting. I'm talking about a motor
14 being programmed to advance needles a very
15 specific distance.
16 Where does Mehta disclose that
17 programming of the motor?
18 A I think you asked me the question before
19 in another way. He doesn't mention the
20 algorithm by which the motor is being
21 activated. Because he mentioned this
22 actuator.

1 Q So I want to move on to another portion
2 of the institution decision for the '774
3 Patent, at Page 15, towards the bottom, let
4 me know when you're there.
5 A I'm there.
6 Q Notes that Mehta discloses that the
7 needle may employ a sensor to assist the user
8 in positioning the needle to the desired
9 depth.
10 Do you see where I'm reading?
11 A So this is the bottom of Page 15. Yes.
12 Q And the portion of Mehta that the board
13 quotes, reads:
14 "Measurement of a tissue
15 parameter by a sensor of 110 provides
16 information that can confirm whether
17 the probe 108 is located in desired
18 target region."
19 Do you see where I'm reading?
20 A Yes.
21 Q Again, that portion of Mehta refers to
22 using a sensor to confirm whether or not the

1 already inserted probes are located in the
2 target region of the dermis, correct?
3 A That's correct. This is to confirm that
4 it's in the desired location.
5 Q Okay. Stepping back a little bit with
6 respect to Mehta. I think we are in
7 agreement that at a very high level in Mehta,
8 needles are inserted into tissue, a user can
9 use a number of ways to confirm the location
10 of the needles already in the tissue, and if
11 the needles are in the target area energy is
12 delivered via the needles, correct?
13 A If it's -- I'm not sure that the energy
14 can be delivered also if the electrode are
15 not -- if verify if they are there. But the
16 needle are deployed to certain distance and
17 then the energy is delivered. And the
18 physician has the option to verify that the
19 needle are at the desired location.
20 Q One of the goals in Mehta is to minimize
21 delivering energy to an undesired region of
22 the tissue, correct?

1 A That's correct.
2 Q So in Mehta, again, at a high level, the
3 way Mehta works is the needles are inserted
4 into the tissue in various ways that the user
5 can employ to confirm whether the needles are
6 in the target area, and if they are, then
7 energy is delivered to minimize energy being
8 delivered to an undesired region of the
9 tissue, correct?
10 MR. MEULLER: Objection to form.
11 A Once again, although the goal is to
12 minimize energy delivery in undesired
13 location, I don't believe Mehta says that
14 energy cannot be delivered in an undesired
15 location.
16 Q I'm going to go back to Mehta, which is
17 Exhibit 8, and I'll direct you to Column 16.
18 A Okay. This is the same -- sorry,
19 Exhibit 8?
20 Q Yeah, so this is -- Exhibit 8 is Mehta.
21 A Okay. Yes. Sorry, yes.
22 Q So looking at Mehta at Column 16,

1 starting at Line 1. Mehta states:
2 "Such customization can prevent
3 energy deliver in an unintended
4 location, for example, when the
5 electrodes have an insulation that only
6 allows energy delivery at the distal
7 tip and the intended location of energy
8 delivery is at a specific depth in the
9 target tissue that corresponds to the
10 length of the extend electrode, the
11 electrode cannot deliver energy to an
12 unintended shallower location when it
13 is not fully extended."
14 Do you see where I'm reading?
15 A Yeah, but I would go -- the beginning of
16 this sentence -- it's Column 15 -- it said,
17 "In another variation," so this is one
18 variation that prevents that. It's not -- it
19 doesn't apply to all the variations, so this
20 is one variation does that.
21 Q Okay. That's fine. So we're in
22 agreement regardless, in Mehta energies are

1 inserted into the tissue. The user can
2 confirm whether or not they're in the right
3 location, and energy is delivered with the
4 goal of not delivering energy to unintended
5 locations, correct?
6 MR. MEULLER: Objection to form.
7 A I would say the goal is to deliver it in
8 the desired location and therefore reduce
9 the -- and reduce the chance of delivered
10 energy in an undesired location, but we
11 don't -- we don't disagree on that.
12 Q And energy is delivered a particular set
13 of time at -- to reach some kind of
14 temperature, correct, and treat the skin?
15 A Temperature is not the only parameters
16 he mentioned. He mentioned impedance or
17 temperature. He mentions -- I just read it
18 before -- that the goal is to provide either
19 denaturation or coagulation of the tissue.
20 So that's the goal.
21 Q Sure. But that requires delivering
22 energy for some period of time, correct?

1 A Yes.
2 Q So -- and, again, that delivery of
3 energy takes place when the needles are in
4 the tissue, correct?
5 A Yes.
6 Q So would you agree with me that in Mehta
7 the needles have to penetrate the tissue.
8 The user confirms the location. Energy is
9 delivered for some time to achieve the
10 desired treatment, and then the needles are
11 removed?
12 MR. MEULLER: Objection to form.
13 A Again, I don't believe that the
14 physician always have to verify the needle at
15 the correct location because this can be done
16 automatically as well. So needle are
17 deployed. Physician has the option to verify
18 the depth or not. Energy is delivered.
19 And the duty cycle, so its pulse that
20 you mentioned, the energy is delivered. Then
21 it stops for some time. Then it's delivered
22 again. So it's delivered in sequences

1 basically in a pulse fashion. And when you
2 reach the end of this cycle, the needle are
3 being retracted -- needles are being
4 retracted.
5 Q Let me back up. At least we're in
6 agreement that in Mehta the needles go in.
7 Whether using a virtual depiction system or
8 other kinds of means, the location of the
9 needles is either verified or determined.
10 Energy is delivered for a period of time, and
11 then the needles are returned?
12 MR. MEULLER: Objection to form.
13 A Again, the verification, you know, when
14 using impedance, it can be done fully
15 automatically by the system. It doesn't have
16 to be verified with the user. We can rely
17 only on the distance. I think there are
18 several variations. So needles are deployed
19 to the desired distance. Energy is delivered
20 in -- following a specific cycle and at the
21 end of treatment, needle are being retracted.
22 Correct.

1 Q Okay. So let me then try this again.
2 Let's see if you agree with me. In Mehta the
3 needles go in; energy is delivered for a
4 period of time; and then the needles are
5 retracted, correct?
6 A Yeah. And, again, period of time, it's
7 not one period. It's a pulse deliver. So
8 they're not only delivered in one sequence;
9 they're delivered with using a duty cycle.
10 Q But that process of energy -- excuse me,
11 let me start again.
12 The process in Mehta of the -- let me
13 start over.
14 The process in Mehta of the needles
15 going into the tissue, either verifying the
16 location or taking some kind of measurement
17 like impedance, which you mentioned, and then
18 delivering energy for some cycle, that the
19 process takes time, at least a few seconds,
20 correct?
21 MR. MEULLER: Objection to form.
22 A I don't know how long it takes. I would

1 have check -- to check. It doesn't have to
2 take that long. The cycle can be very fast.
3 I don't think he actually mentioned the --
4 maybe he does -- duration, the duty cycle,
5 but it doesn't have to take a few seconds.
6 It can be very fast. If the impedance
7 measurement is done automatically or if you
8 skip the finish and verification, it can be
9 extremely fast.
10 Q What is "extremely fast"?
11 A Hundreds of milliseconds. It just
12 depends of how much energy -- the energy
13 parameters you set. So basically how much
14 energy, the power setting, the time-to-cycle
15 duration and so on, the tissue, but.
16 Q To have an effect on tissue, according
17 to Mehta, so denaturing the tissue,
18 coagulation of the tissue, et cetera, you
19 would have to deliver energy for some period
20 of time, correct?
21 A Yes.
22 Q Okay. And if we go to Mehta, starting

1 at Column 37, for example.
2 A Sorry, what -- say it again. What page,
3 you said?
4 Q In Mehta, Column 37, starting at
5 Line 17.
6 A Line 17, temperature.
7 Q This is giving one example in Mehta
8 where the temperature was adjusted from 60 to
9 80 degrees Celsius, and the time at
10 temperature was adjusted from 1.5 seconds to
11 25 seconds, correct?
12 A That's the example shown here, yes.
13 Q And in another phase of that study,
14 Mehta discloses reaching a temperature and
15 holding it at 70 degrees Celsius using a time
16 at temperature of 1 second, 4 seconds and
17 7 seconds, correct?
18 A That is correct.
19 Q Okay. So in Mehta specifically, Mehta
20 discloses delivering energy to reach
21 different target temperatures so that you're
22 able to treat the skin, correct?

1 A That's one of the example he provides.
2 Q Okay. And to reach those target
3 temperatures, you're supposed to deliver
4 energy to maintain them for at least, say for
5 example, 1 second, 4 second and 7 seconds,
6 correct?
7 A That's what is mentioned in this
8 paragraph, but, you know, in Column 38 he
9 mentions time between 0 and 6 seconds, so
10 there are other examples provided as well.
11 And, again, Column 40 mentioned time of
12 1 to 10 seconds, so there are many other
13 example of time.
14 Q But that is holding a temperature,
15 correct? So you reach a target temperature,
16 and then you hold it.
17 A Target temperature...
18 Yeah, but for instance, Column 40 he
19 mentions the time it takes to denature
20 elastin, which is specific thing. To
21 denature protein, you don't need a large
22 time. It's really a function of temperature

1 and time. This is well-known.
2 Q Where are you reading in Column 40?
3 A Column 40 -- I just lost it. Sorry,
4 hold on.
5 Okay. This is Line 30 -- sorry, 25, 6,
6 7, 8:
7 "From the overall experience with
8 the device, the sparing of adnexal
9 structure will be preserved at target
10 temperature between 65 and 75 with time
11 at temperature of about 1 to
12 10 seconds." Then, "It's also commonly
13 accepted that the temperature threshold
14 for elastin denaturation is above
15 100 degrees."
16 Q Right. So Mehta is teaching --
17 A To preserve elastin in this case and
18 keep temperature between 65 to 75. And how
19 to trigger the heat shock proteins, all the
20 biological mechanics that will trigger
21 heating response. And he provide various
22 temperature of that.

1 Q Right. So specific to what Mehta is
2 disclosing -- I go back to my question: In
3 Mehta the needles have to penetrate the
4 tissue; energy has to be delivered for a
5 particular cycle, and then the needles
6 retract.
7 And that process takes, according to the
8 descriptions in Mehta, at least one second,
9 correct?
10 A At least how much you said?
11 Q One second.
12 A I'm not sure it gives an example with
13 less than one second.
14 Q If we go to --
15 A But.
16 Q You answered my question, Dr. Woloszko.
17 If we go back to Exhibit 1003, the
18 declaration for the '774 Patent, which is
19 Exhibit 6.
20 A Okay. Yes, uh-huh.
21 Q Okay. We are on Page 50, Paragraph 94.
22 A So where are you, at Page 10?

1 Q Page 50.
2 A Okay. It's small on the screen, sorry.
3 Q So in this portion of your declaration,
4 you rely on Mehta's disclosure of depth
5 markings as one of the means that allows a
6 physician to extend needles 104 to a desired
7 distance, correct? That's your words.
8 A Paragraph 94 mention among other
9 mechanics. Yes. This is the paragraph that
10 talks about the various type of marking on
11 the needles.
12 Q Okay. And, again, if we go to
13 Column 13, Lines 37 through 45 of Mehta. And
14 I'll give you a moment to get there.
15 A What column you said?
16 Q 13, Lines 37 through 45.
17 A Yes.
18 Q This particular portion of Mehta refers
19 to enabling a physician to observe proper
20 placement of the needles, correct?
21 A That's correct.
22 Q One way that Mehta teaches using the

1 depth markings and allowing a physician to
2 extend the needles a desired distance is by
3 the physician manually repositioning the
4 needles?
5 A Hold on. I turned my phone off. I
6 apologize. Say it again. My apologies.
7 Q No worries. One way that Mehta teaches
8 that the depth markings could be used to
9 reach the target tissue would be by allowing
10 a physician to manually reposition the
11 cartridge with the needles, correct?
12 A Where do you read "manually"?
13 Q Well, Mehta doesn't teach how else the
14 needles would be repositioned, correct?
15 MR. MEULLER: Objection to form.
16 A He -- the only way Mehta mentions the
17 needle to be positioned is using the motor,
18 so there was no way to advance the needle in
19 Mehta disclosure rather than using the motor.
20 Q I'm not talking about advancing needles;
21 I'm talking about repositioning the needles,
22 so let me ask a different question.

1 In Mehta the way that you would
2 reposition the needles is by selecting a
3 different cartridge with a different needle
4 array configuration, correct?
5 MR. MEULLER: Objection to form.
6 A Mehta mentions -- I think we turning
7 around. Mehta mentions a way to advance and
8 retract the needles so -- using the similar
9 cartridge. So he mentions that the system
10 has capabilities to have different depth. He
11 doesn't elaborate on that, but he provides
12 the means for a person skilled in the art to
13 use a system to use several depth with a
14 similar cartridge. Obviously, a cartridge
15 has its limitation, have a maximum depth.
16 Q Where does Mehta disclose using the same
17 cartridge to reach different depths?
18 A He says -- again, I need to find the way
19 where he says it can be retracted. Let me
20 see, you asked me the same question before,
21 and I was looking for it.
22 Q I think you're referring to Column 16,

1 starting at Line 34.
2 A Let me see. Yeah. For instance, yes.
3 Q Okay. So other than the over-insertion
4 and retraction disclosed in Mehta at
5 Column 16 starting at Line 34, Mehta doesn't
6 disclose any other way to use the same
7 cartridge to reach different regions of the
8 skin, correct?
9 A Mention that the system has the ability
10 to basically control the depth of insertion,
11 whether by inserting and retracting, so the
12 system has all the capabilities of putting
13 the needle at a very specific depth.
14 Q I'm going to go back to my question,
15 Dr. Woloszko, because I don't think that you
16 answered it.
17 Other than the over-inserting and slight
18 retraction disclosed at Column 16, starting
19 at Line 34 of Mehta.
20 Mehta doesn't provide any other means
21 for using the same cartridge for reaching
22 different target depths in tissue, correct?

1 MR. MEULLER: Objection to form.
2 A He does. He mentions changing the
3 angle, as well.
4 Q But that would mean using a different
5 cartridge configuration, correct?
6 A Does not have to be.
7 Q Okay. So let me ask again.
8 Other than the over-insertion and
9 retraction at Column 16, starting at Line 34,
10 and changing of the angle in the cartridge,
11 Mehta doesn't disclose any other way to use a
12 single cartridge for reaching different
13 target regions in the dermis, correct?
14 A It doesn't provide details of that,
15 correct.
16 Q Thank you.
17 Going back to Exhibit 8. I will direct
18 you to Page 121.
19 A Sorry. Exhibit 8 is?
20 Q The declaration for the '774 Patent.
21 A Okay. Yes. And page, you said?
22 Q 121. Paragraph 222. So I guess,

1 technically it starts at Page 120. My
2 apology.
3 A Paragraph 222, yes.
4 Q So in that paragraph you refer to Mehta
5 disclosing:
6 "A tissue characteristic
7 indicator that provides a virtual
8 depiction 350 of the depth or location
9 of the needles to illustrate an actual
10 placement of the needles, which allows
11 the physician to identify whether the
12 array of needles is located within the
13 desired tissue layer."
14 Do you see where I'm reading?
15 A Yes.
16 Q And we can go to those portions of
17 Mehta, if you'd like, but would you agree
18 with me that Mehta is disclosing a virtual
19 depiction system that illustrates the actual
20 location of needles, correct?
21 MR. MEULLER: Objection to form.
22 A Let me quirkily look at those columns,

1 let's make sure.
2 Yeah, sorry. Repeat your question
3 again, I read the Column 32.
4 Please, make sure I answer your
5 question.
6 Q The portions of Mehta that you rely on
7 at Paragraph 232 of you declaration for the
8 '774 Patent, regarding Mehta's disclosure of
9 the virtual depiction system, only refer to
10 using that system to illustrate the actual
11 placement of the needles in the tissue,
12 correct?
13 A This portion is to allow the
14 verification to the observation of the
15 location of the needles, yes.
16 MR. MUELLER: And, Counsel, we've been
17 going for some time. I don't know if
18 you're ready for a break or at some
19 point you will be soon.
20 MS. PENIZA: You read my mind because
21 I was going to say just that. Why
22 don't we go off the record and go on a

1 break.
2 (Whereupon, a recess was taken
3 from 11:25 AM until 11:35 AM.)
4 MS. PENIZA: Why don't we go on the
5 record.
6 Q Dr. Woloszko, just to confirm, some
7 people are with you in the room and you're
8 not communicating with anyone else, either
9 via Zoom or any other means, correct?
10 A Yes. Except I answered a text to wife,
11 but it has nothing to do with that, yes.
12 Q Sounds good. And if you need to use
13 your phone at any point, we can take a break
14 and you can --
15 A No, it's fine. I shouldn't have to. I
16 tried to turned it off, if for some reason
17 it's ringing, and I put all the features to
18 turn it off.
19 Q I'd like to switch gears a bit and ask
20 you just, generally, in the context of these
21 types of devices, what is a "pin" to you?
22 A A pin is a very general term. And I

1 believe that for -- in electrical
2 engineering -- or electrical mechanical
3 engineering, I would say a pin would be a
4 conductive or, usually, metal extension to
5 establish contact to close an electrical
6 circuit.
7 Q Okay. What is a coil?
8 A A coil is usually -- it's helicoidal
9 either constant of viable pitch or viable
10 diameter. So it's something that forms --
11 that rotates while -- rotates in the XY axis
12 while growing in the Z axis.
13 Q Is it kind of like a spring?
14 A It depends on the material. There are
15 coil springs, there are many other kind of
16 springs, but the most efficient type of
17 spring usually are coils.
18 Q Is a coil a wire that could be used for
19 an electrical connection, also a pin?
20 MR. MEULLER: Objection to form.
21 A It can be.
22 Q Would you agree with me that pin can be

1 compressed and released so that it can extend
2 in one direction, kind of?
3 A No. This is what's commonly called pogo
4 pin. This is one type of pin. But there are
5 many other types of pins used in
6 electrical -- electromechanical engineering.
7 This -- why this pin has a specific -- I
8 think it's not a common name, it's probably a
9 proper name. But it's commonly used pogo
10 pin, this specific pin, where you have,
11 basically, two cylindrical, coaxial
12 cylindrical parts of -- with a spring in the
13 middle, with a coil spring in the middle.
14 But this is called specifically pogo pin,
15 this is by far not the definition of pin.
16 Q Okay. What other types of pins are
17 there for electrical connection for these
18 types of --
19 A I can you give an example. The pin used
20 on -- the plug used on an electrical plug you
21 use every day to connect your phone charger,
22 these are two pins that goes in the plug.

1 You have a spring pin -- in some -- Mehta
2 describes a pin, which is a spring pin, which
3 deflects as, basically, it's kind of a flat
4 piece of metal that deflects in one way.
5 You have pins that deflect as
6 eccentrically, that's very common in
7 connector; you have a male and female pin
8 that deflects. You have many kind of pins
9 used in PCBA connections.
10 Coil is often used in -- I've seen pins,
11 coils, spring coils, in some connections
12 between PCBA, it allows to adjust for
13 connections. So there are many types, so I'm
14 not going to give you the list of all the
15 possible pins because they are extremely
16 large.
17 But, basically, most of them metallic or
18 can polymeric, if it's metal, coil can be
19 carbon, water conductive material. It
20 depends what you try -- what kind of power,
21 energy you try to conduct.
22 Most of the time, when you have a

1 connection involving pin, one of them, at
2 least, deflects in one direction or more.
3 Example, when you have a typical connector,
4 you use one pin, which is basically a rod
5 that will go -- this is the male part goes
6 into a female part, that will deflect by
7 increasing its diameter to make sure you have
8 sufficient -- you have some level of pressure
9 to establish contact.
10 So you need to -- to have a connection,
11 you need of some kind of -- make sure you
12 have good contact between the -- contact
13 between the two parts.
14 Q What --
15 A And when you -- to define an electrical
16 pin is basically a way to close electrical
17 circuits.
18 Q Okay. If we're thinking about the types
19 of devices at issue here, disclosed in these
20 types of patent, would you agree with me that
21 a pin, to establish an electrical connection,
22 would have only 1 degree of freedom in terms

of movement it can extend -- retract and extend?

A No. For instances, as I mentioned, the cylindrical pin extend both A and Y axis, for instance, it's two a degree of freedom, because it expand like that (indicated.)

But there are pins -- you don't have to -- you actually don't have to -- there is nothing in the pin definition that limits the number of -- the actual movement, the degree of freedom of the pins, no.

Q What is the difference between a pin and a coil?

MR. MEULLER: Objection to form.

A It's apple and orange. A coil can be used as a pin; or a pin can be a coil; or a pin can be other than a coil. A coil can be used for spring, it can be used for many -- you can call a wire to do something else. So a coil is shape. A pin is -- describe a function where a coil describe a shape. So you can compare shape and function.

1 Q And I just want to understand your
2 opinion here.
3 So what is the function of a pin?
4 A The pin is to -- I think I said before,
5 the pin function in this context, the pin
6 function is to establish contact to close
7 electrical circuits.
8 Q When would you use a coil to establish
9 electrical connection to close an electrical
10 circuit?
11 A When it makes sense in the type of
12 connection you have. So it depends. There
13 are many options, so this is one design
14 option you can use various -- you know, most
15 of the time, as I said, when you have pin,
16 you can have one pin and a flat surface and
17 whatever. And usually one of the -- one of
18 elements of the connection has some
19 deformation, elastic deformation, to
20 establish the coil; doesn't have to, but
21 usually you have some elastic deformation,
22 some way that can be pushed in some way to

1 establish the contact.
2 The coil is efficient way to do that.
3 I've seen it used in several devices, some
4 Chinese device I remember seeing those in
5 some PCBA so it's when, I think it's a good
6 way to establish contact. It's basically a
7 coil would be -- and again, this is not
8 limited, it would be a good way to establish
9 contact where you where the receptacle in
10 which you would engage would prevent, would
11 limit the XY movement and not only limit the
12 motion in the Z axis, basically in
13 compression to the coil, but that's general
14 term and it's cheaper that the pogo pin
15 that's basically have at least three
16 component where the coil is one component.
17 So it's the cost effective fashion to
18 establish contact.
19 Q I want to follow-up on something you
20 said, and correct me if I'm wrong, you said
21 that a coil can be used limit movement --
22 A No.

1 Q On the Y axis -- okay. Let me back up.
2 A No. I said you, you -- it is often not
3 necessarily used. When you use a coil, very
4 often the coil engaged in the receptacle that
5 basically has a little divot or cylindrical
6 things that would lock its location in the
7 X/Y axis.
8 So you make sure that the coil makes
9 contact at the precise location.
10 So when you use a pogo pin, for
11 instance, you need to make sure it's
12 precisely located on the -- at base of it.
13 And that it's well attached during a sturdy
14 location, so it doesn't deflect in X/Y -- in
15 the -- it doesn't deflect, which sometimes is
16 a challenge.
17 When the coil is much easier to insert,
18 it can be very easy to solder, that we would
19 solder it or cling to whatever you want.
20 Doesn't have to be as precise and as sturdy,
21 because it has more degrees of freedom, like
22 many other springs.

1 And, often, you use a location feature
2 on the receiving part of circuit to make sure
3 the coil is located at the right place.
4 Q I just want to follow-up on some of
5 those things, then.
6 You would agree with me that a coil has
7 more degrees of freedom than a pin in context
8 of these devices providing --
9 MR. MEULLER: Objection to form.
10 A As I said, a coil is form of pin. So
11 I'm not sure what can you define as "pin"
12 here.
13 Q Okay. Let me ask a different question.
14 You agree with me that a coil can
15 deflect in the X/Y direction in addition to
16 the Z direction so that it can be compressed
17 and maintain an electrical connection,
18 correct?
19 A Any structure can deform in any
20 location, it's a question of stiffness. So a
21 coil has less stiffness in the XY axis than,
22 for instance, a pogo pin, which actually is a

1 benefit because it makes it less fragile; it
2 makes it more reliable in a way.
3 Q Okay. I'm -- I want to
4 follow-up because I'm getting a little bit
5 confused.
6 Sometimes you tell me that a coil has
7 more freedom in the X/Y axis, and then you're
8 telling me that a coil has less freedom in
9 the X/Y axis.
10 So I want to make sure I understand what
11 you're saying.
12 A I did not say that. What I said is, so
13 you need to listen carefully to what I said.
14 I said a coil is often used in a place
15 where the receiving part has a feature that
16 limits -- that basically will locate the end
17 of the -- the end of the coil to prevent a
18 coil to basically move in other directions.
19 But depending how the coil is designed,
20 it can have varying stiffness in the X/Y
21 axis. For instance, a coil with a variable
22 pitch -- with a variable diameter, rigid in

1 the X/Y axis. And it really depends on how
2 the coil is structured.
3 But the coil is normally used in
4 1 degree of freedom, the coil is usually used
5 to either compress or extend following, what
6 I call, the Z axis. You can, obviously,
7 apply constraint in other direction and, as
8 any mechanical structure, you would have a
9 deformation.
10 Q I'm trying to understand what you're
11 saying. I think there's a lot of
12 inconsistency in what you just said.
13 I'm trying to understand the difference
14 between a coil and a pin and degrees of
15 freedom for each.
16 So in that context, would you agree with
17 me that if you use a coil you could have more
18 degrees of freedom of movement than if you
19 use the pin as an electrical connector in
20 these types of devices?
21 MR. MEULLER: Objection to form.
22 A Once again, a coil is a form of pin, so

1 I don't know what you mean by a "pin".
2 Q Okay. So we'll go back to -- why don't
3 you tell me what a pin is to you.
4 A The pin is a mechanical extension -- is
5 a conductive extension to establish contact
6 between to -- to close an electrical circuit.
7 Q Okay. And a pin can either have -- be
8 stiff and have no degrees of movement or, in
9 this context, for example, compress and
10 decompress to have 1 degree of freedom of
11 movement, correct?
12 A Some pins are -- do not deform because
13 they go into -- usually, they go into a --
14 they make a contact with a structure they can
15 deform itself. In the context of
16 spring-loaded elastic pins, we see there is a
17 deformation, it does not have to be into
18 1 degree of freedom.
19 Once again, pogo pin are designed to
20 limit, they always have, and actually, pogo
21 pin they are pretty weak and they do deform
22 the X/Y axis, they are not -- mostly when

1 they are fully extended, they are not very
2 rigid. So they all have many degrees of the
3 freedom.
4 Q Pogo --
5 A Many of them are undesired.
6 Q -- pogo pins are not designed to deflect
7 in the X/Y axis, correct?
8 A They do deflect. They do deflect. So
9 if you look at Dorman, made them pretty
10 cheap, they are not very rigid. They are
11 not -- most of them are not designed to
12 withstand X/Y constraint. It's why Mehta --
13 when he makes a pin, in Mehta's design, for
14 instance, he make as pin, which is designed
15 to slide, because it doesn't use a pogo pin.
16 He use a system, which is more rigid in the
17 X/Y direction, than the pogo pin on his
18 connector because it's a much more robust
19 design than a pogo pin for that. Pogo pin
20 are not -- are very weak in the X/Y axis,
21 usually.
22 Q When you say they're weak, maybe they

1 could withstand movement, but they're not
2 designed, they would break, right?
3 A pogo pin would break if you apply too
4 much pressure in the/XY axis, they're not
5 designed to withstand that movement?
6 A They usually deform in a non-elastic
7 fashion, and then they lose their function.
8 They don't break, but they deform. So you
9 have to be very careful when you use those.
10 You have to make sure that you don't apply
11 any constraint of them in the X/Y axis
12 because they're not designed to sustain any
13 force, but they do deform.
14 Q Why don't we move on to Livneh, which is
15 another reference that you rely on, and we
16 can mark this as Exhibit 9 to your
17 deposition, and the translation would be
18 1011.
19 (Whereupon, Certified
20 Translation of Korean Registered
21 Utility Model No. KR20-0441552
22 to Livneh was marked as Exhibit

1 9 for identification as of this
2 date.)
3 A Correct, yes.
4 Q So we can just mark 1011, which is a
5 translation of Livneh as Exhibit 9, unless
6 you want to take a look at the foreign
7 language document as well, Dr. Woloszko.
8 A Yeah. I can look at it, but I obviously
9 don't speak Korean so.
10 Do you want me to look at the foreign
11 language one?
12 Q No. I can't speak Korean either.
13 A Okay. Yes. We assume the translation
14 is correct.
15 Q So that's what we're marking for this
16 deposition.
17 So looking at the translation for
18 Livneh, if I look at for example the abstract
19 on the very first page of the translation,
20 would you agree with me that the Livneh
21 generally discloses an apparatus to create
22 hundreds to tens of thousands of holes in the

1 skin using a gun with a plurality of
2 microneedles.
3 A The abstract present invention provides
4 multi-hole skin regeneration apparatus,
5 that's in the abstract, tens of thousands so
6 multiple holes in the human skin.
7 Q Livneh does so at very high speeds and
8 so the needles are going into the tissue
9 very, very fast, correct?
10 A I don't know what very, very fast is,
11 but it can go -- it can go fast, yes.
12 Q Okay. Well, let's take a look at some
13 of what Livneh specifically discloses. If we
14 go to Paragraph 58, which is at Page 5.
15 A Yes. 66 times per minute is about one
16 time per second. So that's not very fast.
17 So it goes to one time per second to about
18 eight time per seconds, in the description.
19 Q Let me make sure that I get my question
20 in there.
21 So Livneh discloses that the treatment
22 can be performed at a speed of about 66 to

1 420 times per minute, correct?
2 A That's correct.
3 Q So at least slowest rate the needles
4 extend and retract at a rate of less than a
5 second, and that its fastest rate at a rate
6 of ten milliseconds, correct?
7 A It should be more than ten milliseconds,
8 but I think it would be about 12 something
9 millisecond, but order of magnitude. Not ten
10 millisecond, 6,000 divided by 40 would be
11 about 15, 14 milliseconds.
12 Q So in Livneh, at its lowest speed, the
13 needles extend and retract at a rate of less
14 that a second, correct?
15 A That's an example he -- I don't think
16 this is limited, but he said the example he
17 provides, the treatment procedure may be
18 performed at a speed. The specification of
19 this patent application is not limited to one
20 second, but in the embodiment he gives an
21 example that it would be a bit less than a
22 second at the fastest speed to the

1 deployment.
2 Q At its lowest speed, correct?
3 A Yes.
4 Q And at its fastest speed, the rate in
5 which the microneedles extend and retract
6 would be about 13, 14 milliseconds?
7 A Yeah, 14, about.
8 Q Okay. If we go to -- let me ask a
9 different question.
10 Other than the example of the rate of
11 speed at Column 58 -- excuse me, at
12 Paragraph 58 of Livneh, Livneh doesn't
13 provide any other information about how fast
14 the treatment is performed, right? That's
15 the only example Livneh provides?
16 Let me strike that and ask a cleaner
17 question.
18 The only example that Livneh provides
19 regarding the speed of the treatment is at
20 Paragraph 58, correct?
21 A He mentioned at Paragraph 65 that each
22 actuation can be triggered basically

1 manually. So it will tell you for one cycle.
2 So this would be different than having the
3 system continuously go in and out for
4 60 milliseconds. This is describing
5 Paragraph, sorry, 65. So this is a manual
6 trigger of -- a manual of trigger of each
7 insertion. It doesn't mention the speed of
8 the motor but...
9 Q So I'm going to read Paragraph 65 to
10 make sure that we are on the same page.
11 Livneh explains:
12 "For example, the actuator may be
13 set in such a manner that it performs
14 one reciprocating operation each time
15 the switch is pressed, or actuator
16 performs multiple reciprocating
17 operations while holding the switch
18 press," correct?
19 A Yes.
20 Q That doesn't tell you the rate at which
21 the microneedles go in and out, correct?
22 A I wouldn't call it the rate because the

1 rate would be the frequency, rate means
2 frequency. That would mean the inverse of
3 the period of time between two insertion, but
4 it doesn't provide time, it doesn't tell you
5 the speed.
6 Q Correct. So Paragraph 65 doesn't deal
7 with the speed at which the needles extend to
8 penetrate the tissue and retract, correct?
9 A It doesn't provide like -- it doesn't
10 provide an indication of the insertion or
11 retraction speed, that's correct.
12 Q Paragraph 58 does that, correct?
13 A Paragraph 58, although he mentions
14 speed, he re-mentioned the frequency. So
15 obviously you need to have a minimum speed to
16 do that, but it doesn't tell you the time
17 during which the needle is stop.
18 Because when a needle changes, when you
19 have a movement like that is usually
20 sinusoidal or other shape of speed, the speed
21 is not constant. Same thing the piston in an
22 engine, the speed of a piston is sinusoidal.

1 I talk about the internal combustion engine
2 for instance.
3 Here we talk about the rate of
4 repetition of the stuff, although he calls it
5 speed. Speed is misleading in the way it
6 really means the frequency of the speed as of
7 the number of insertion per minute. It
8 doesn't give you the linear speed of the
9 needle.
10 Q Dr. Woloszko, that really wasn't my
11 question and I'm not talking about piston
12 engines, but your voice is going in and out
13 again. I'm not sure what's happening with
14 your mic.
15 A I don't know.
16 I'm sorry. Can you hear me better now?
17 I don't know why. It worked very well last
18 time.
19 (Technical difficulties.)
20 MS. PENIZA: Maybe we can go off the
21 record.
22 THE WITNESS: You're back.

1 MS. PENIZA: So that's fine.
2 Q I want to make sure that we go back to
3 Livneh because I want to focus on the
4 specific disclosures of Livneh.
5 So you agree with me that Paragraph 58
6 of Livneh discloses the speed of which the
7 treatment procedure may be performed,
8 correct? That's what the paragraph says.
9 A Possibility of the speed. So, again,
10 the speed is related here to the rate of
11 insertion. Not the speed of the needle. So
12 it tells you, speed is also -- so it doesn't
13 give you the linear speed of the needle, once
14 again, it gives you the rate, the repetition
15 rate of the insertion retraction of the
16 needle. So how many perforation per minute
17 the device performs.
18 Q I actually think it's the same thing.
19 So let me make sure I understand your
20 opinion.
21 If I'm at the highest speed of 420 times
22 per minute, the needles are going into the

1 tissue 420 times per minute, correct?
2 A Yes.
3 Q And then looking at Paragraph 65. What
4 Paragraph 65 is saying is that, to begin the
5 treatment, you can press the switch so that
6 the needles go in and out the tissue once, or
7 you could have a multiple reciprocating
8 operation system where you hold the switch
9 press and then the needles go in and out, in
10 and out, in and out, correct?
11 A Switch by operations -- you press the
12 needle, the needle goes in and out, yes.
13 Q Okay. So regardless of whether you're
14 performing one reciprocating operation each
15 time the switch is pressed or multiple
16 reciprocating operations while the switch is
17 held, the speed of the treatment is 62 to 420
18 times per minute, correct?
19 A Fifty-eight, for example, and 65, say,
20 for example, so it is not expressly mentioned
21 that those are the same embodiment and that
22 the same speed is used in both cases.

1 Q I think we're mixing apples and oranges,
2 right. You agree with me that Paragraph 58
3 is referring to the speed of the treatment,
4 and Paragraph 65 is referring to how you
5 trigger the treatment to begin?
6 A Yes.
7 Q Okay. Livneh doesn't disclose delivering
8 energy via the needles, correct?
9 A Let me -- he mentions obviously to
10 deliver mechanic energy into the needles, to
11 insert them, that's a form of energy. But it
12 does not mention specifically any other form
13 of energy, I believe.
14 Q Let me ask, then, a follow-up question.
15 Other than mechanically delivering
16 energy by means of the needles being inserted
17 and being retracted into the skin, Livneh
18 doesn't disclose delivering any other type of
19 energy via the needles to the tissue,
20 correct?
21 A That is correct.
22 Q There's no disclosure of delivering, for

1 example, RF energy via the needles to the
2 tissue, correct?
3 A He does not mention -- and I want to
4 refresh my memory again -- he does not -- I
5 don't remember him mentioning radio frequency
6 signal delivered to the needles, that's
7 correct.
8 Q There is no disclosure indeed of any
9 mechanism that could be used to confirm
10 whether needles that are already inserted
11 into skin are in a target location, correct?
12 A Actually, he mentions -- let me look
13 again in the control system, let me look
14 again. You mean to verify by the system or
15 verify by the user?
16 Q Either.
17 A He says something -- I just read it and
18 I -- he mentions -- he says number one an
19 actuator means that can control the insertion
20 depth. So when you control, and I have my
21 Ph.D. in control systems, when you control,
22 you mean you have feedback that informed the

1 system that you are at the specific location.
2 So where you meant control, there is
3 some wave of feedback, whether mechanical,
4 electronic, software, whatever, so when you
5 control the desk, there is a control, yes.
6 Q But my question -- Livneh doesn't
7 disclose anywhere any kind of means to
8 confirm whether the needles have reached the
9 target tissue, correct?
10 MR. MEULLER: Objection to form.
11 A Their system controls, so you would
12 assume that if you control it, if a system
13 goes out of specification, then this would be
14 a requirement by most of the safety standard
15 and desired things, the system would generate
16 an error message if it was not performing to
17 the desired location.
18 Q That wasn't my question, Dr. Woloszko.
19 Livneh doesn't disclose a way to confirm
20 whether the needles have reached a target
21 location, correct?
22 A Again, he mention AC servo motor, this

1 is 46, a position controllable motor. So he
2 mentions that the location of the needle are
3 controlled by the system. Controlled means
4 they are fed back to the system and which
5 means confirmed by the system that the
6 needles have achieved the desired location.
7 That's what controls mean.
8 Q In your view, a system that controls the
9 depth of the needles also confirms that they
10 have reached a particular location?
11 A That's the goal of the control. The
12 goal, basically you send a signal and you
13 have a feedback. The feedback means you
14 confirm the location of the needles. That's
15 what the definition of control. Basically
16 you send an input and you get an output and
17 you get an output which is the location of
18 the needles.
19 So the system sends basically, I'm
20 sorry, a signal to the motor, I want to go to
21 this specific location, then the sensor or
22 the system basically you want to use a servo

1 motor, will give you that location, or a
2 stepper motor. There are many systems.
3 Basically, this servo motor will give you the
4 information back to confirm that the system
5 is a location that the system has been
6 programmed to achieve.
7 Q Wouldn't that be confirming that the
8 needles have been extended to the distance
9 that the system has been programmed to extend
10 the needles, as opposed to confirming whether
11 they are in a particular target location?
12 There's a difference, correct?
13 A This confirmed that the needles are
14 extended at the desired distance from the,
15 whatever we could call, end surface or
16 whatever it's called here.
17 Q Livneh doesn't disclose a particular
18 means for confirming that the needles reached
19 the target tissue, correct?
20 A He does not perform a way to identify
21 the nature of the tissue within the needles
22 are.

1 Q So Livneh doesn't disclose, for example,
2 measurement -- excuse me. Livneh doesn't
3 disclose measuring tissue parameters to
4 confirm that the needles are in the correct
5 location, like Mehta does, for example,
6 right?
7 A Livneh does not mention using impedance
8 temperature or other parameters to
9 characterize the tissue whether needles are
10 being deployed.
11 Q And that information is related to the
12 user in Mehta to confirm that the needles are
13 in the target region, correct?
14 A Mehta is using impedance temperature or
15 others to confirm that the needles are in the
16 desire tissued, tissue type. And this is
17 also to avoid vessels, nerves, and so on.
18 Q Okay. Livneh does not disclose any of
19 those means for confirmation that the needles
20 are in a particular target region, correct?
21 MR. MEULLER: Objection to form.
22 A Livneh doesn't disclose any way to

1 characterize tissue, yes.
2 Q And it doesn't because in Livneh, to
3 your point -- strike that. Let me ask you a
4 different question.
5 In Livneh there is no virtual depiction
6 system to confirm that the needles are in the
7 correct region of the tissue like in Mehta,
8 correct?
9 A Livneh describes -- he describes a user
10 interface somewhere.
11 He mentions the method of automatically
12 adjusting the insertion depth of the
13 microneedles.
14 Q Where are you reading in Livneh?
15 A Paragraph 69. "Present invention
16 enhances the multi-hole treatment effect by
17 making it possible, among others, to perform
18 treatment with a method of automatically
19 adjusting the insertion depth of the
20 microneedles during multi-hole treatments."
21 Q That portion of Livneh and nowhere else
22 in Livneh is there any description of a

1 virtual depiction system to confirm the
2 needles are in the correct region that you
3 have in Mehta, correct?
4 A I was looking at the user interface he
5 describes. He describes a console, a cart
6 and...
7 Basically, if we look at the
8 Paragraph 31, he says that the cart is not
9 illustrated in the drawing, but he said that
10 the cart basically includes a control logic
11 program for controlling an LCD, which is
12 basically a screen, and so on.
13 So he does not -- he does not --
14 basically he says, again, below on the same
15 paragraph:
16 "means of manipulation and
17 display; a display window for
18 displaying the operational
19 relationship, et cetera; and lamps."
20 So he mentioned sight up of display to
21 indicate the system, and obviously, you know,
22 as we just discussed a few minutes ago,

1 parameters like -- such as speed and location
2 of the needles, you would assume would be the
3 parameters you would display there. So this
4 would confirm as he describes servo motor --
5 stepper motor, they give information on the
6 needle, deployment or the exact position of
7 the needle.
8 So it would be -- although it is not
9 maybe specifically mentioned, it would be
10 obvious for a person skilled in the art to
11 assume that the display would provide a way
12 to indicate the location or the depth, the
13 actual depth of the needle compared to the
14 programming to the desired depth programmed
15 by the user.
16 Q I'm going to ask my question again
17 because I don't think I got an answer.
18 Livneh does not disclose a virtual
19 depiction system to confirm the location of
20 the needles, correct?
21 A Livneh describe a graphic -- a display
22 window for displaying operational

1 relationship, et cetera. So he disclose a
2 graphic interface that provide operational
3 relationships.
4 Q Nothing in Paragraph 31 indicates that
5 graphical user interface displays a virtual
6 depiction system with the actual location of
7 the needles already inserted into the skin in
8 Livneh, correct?
9 A Once again, it does not -- it says it
10 does not illustrate the details. It doesn't
11 provide details of what is displayed on this
12 display, but it would be obvious person
13 skilled in the art here that the
14 operational -- the operation parameters of
15 the system would be, you know, basically
16 speed and actual location of the needles.
17 Q Livneh doesn't have any disclosure of
18 including markings on the needles to confirm
19 that the needles are in the correct region
20 like that in Mehta, correct?
21 A Livneh does not disclose marking on the
22 needles; that is correct.

1 Q I think we can move on to the next
2 exhibit, which is Exhibit 1010, Livneh.
3 (Whereupon, Livneh International
4 Publication Number WO
5 2008/005477 was marked as
6 Exhibit 10 for identification as
7 of this date.)
8 A 1011, 1010.
9 MS. PENIZA: So I think that would be
10 Exhibit 10 to the deposition.
11 A Yes, I have it here. 1010, yes. 1012,
12 yes. 1010.
13 Q Livneh.
14 A Livneh, yes. Bovie Medical, yes.
15 Q Would you agree with me that at a very
16 high level Livneh discloses an apparatus to
17 apply current to skin via electrodes?
18 A He discloses an apparatus to deliver
19 radiofrequency signal to the skin via
20 microneedles, yes.
21 Q And in Livneh -- and we can go to the
22 drawings if that's helpful -- I'm looking,

1 for example, at line -- Figure 3 of Livneh.
2 A Yes.
3 Q In Livneh you have a handheld unit 34.
4 A Let me go to Figure 3, sorry. Figure 3,
5 yes.
6 Q So my question is in Livneh, you have a
7 handheld unit 34 and a housing 36 which
8 houses the electrodes, correct?
9 A High level, yes. Let me see how he
10 defines those but -- he define them
11 somewhere. Make sure we use the language
12 he's using.
13 Q And go to Paragraph 5 if that's helpful.
14 A Paragraph 5.
15 (Reading sotto voce.)
16 A Proximal end and distal end.
17 So say it again how you call them.
18 Q I'll repeat my question. So Livneh has
19 a handheld unit 34 and a housing 36 which
20 houses the electrodes, correct?
21 A Yeah, I don't see the 34 in this
22 paragraph here mentioned. He mentioned the

1 36, the housing. Where does he describe the
2 34? I'm looking for it.
3 Q You can go to Paragraph 33.
4 A Okay. Yeah.
5 Q Okay. So looking at Paragraph 33, would
6 you agree with me that at a high level Livneh
7 discloses a handheld unit 34, which includes
8 a housing 36.
9 A Paragraph 33, where is that?
10 Paragraph 33, you said?
11 Q Yes. I want to make sure that we don't
12 speak over each other so I'm going to
13 repeat --
14 A Yeah, I know. Yes. I don't find
15 Paragraph 33 so.
16 Q It's up on the screen?
17 A Livneh stops at Paragraph 18 here. Are
18 we talking -- I don't have a Paragraph 33.
19 Q I think you may have an incomplete copy.
20 The exhibit is on the chat and is also on the
21 screen if you want to download it and look at
22 a --

1 A Okay. Yeah, I seem to have a different
2 version here. I have a different version, so
3 that's why we are not in sync.
4 Q Sure. Well, Exhibit 10 to the
5 deposition is the Livneh reference that you
6 rely on. Please feel free to download it,
7 and take a look through it and confirm.
8 A Okay. Here I have what is mentioned as
9 Exhibit 10 -- 1010, which is the PCT
10 application. Are we looking at the same
11 document here?
12 Q I think so. PCT application number
13 PCT/US2007/015441.
14 A Okay. Yeah, 015441. Yes, it's a
15 different format than the one you have. Hold
16 on. What's going on here? Now I see
17 something else. Oh, I was --
18 Q You may have been in the claims.
19 A Yeah, yeah, yeah. I was in the claims.
20 You're right. Yes. My apologies. I was in
21 the claim, yeah, and I didn't go back far
22 enough. It was weird. Yes. No.

1 Q No worries.
2 A Thirty-five. Okay. Yes.
3 Q Okay. So let me go back to my question.
4 At a high level, Livneh has a handheld unit
5 34, which includes a housing 36, and it
6 houses the electrodes as well as other
7 components, correct?
8 A Yes.
9 Q Okay. And feel free to look through
10 other paragraphs in Livneh. But the housing
11 has an opening, correct?
12 A Housing 36 -- it has an opening,
13 correct, yes.
14 Q Okay. And if it's helpful, I'll direct
15 you to Paragraph 8. But in use, with respect
16 to the device in Livneh, you would place the
17 device on the skin. There is a vacuum and a
18 seal around the edge of that opening in the
19 housing.
20 And the vacuum and the seal, they seal
21 that defined area of skin that's going to be
22 treated, correct?

1 A Does he say that the defined area --
2 where did you read that he says that?
3 Q Well, in Paragraph 8 it states that --
4 A Oh, Paragraph 8. Okay. Let me get
5 there.
6 (Reading sotto voce.)
7 A "And the edge seal the defined area of
8 skin from outside elements to enclose" -- it
9 doesn't -- yeah. It's a defined area of skin
10 within which the treated area. So the seal
11 is not the area of skin, but it defines. So
12 the skin treated is within this area. This
13 is not the whole area.
14 Q Sure. And then the electrodes are
15 deployed, and they go in and out of the skin,
16 at a very high level, correct?
17 A They go in, deliver energy, and they go
18 out, yes.
19 Q Okay. If you look, for example, at
20 Paragraphs 42 and 43. And I'll give you a
21 moment to read them before I ask my question.
22 Let me know when you're done.

1 A Yes, I read them.
2 Q Okay. So in Livneh the electrodes move
3 between a first position and a second
4 position using mechanism 74, correct?
5 MR. MEULLER: Objection to form.
6 A The -- they -- they are movable between
7 the first position and the second position.
8 Movable. It doesn't mean it can only stop
9 at -- it doesn't stop only at those two
10 positions. The system, the needles can
11 operate between those two positions.
12 Q You are not relying on Livneh as
13 teaching needle depth control in your
14 opinions and the grounds that you provide in
15 any of the IPRs?
16 A I am not the relying on Livneh for that.
17 Q Okay. I think we interrupted one
18 another, so I just want to make sure that
19 we're clear.
20 You're not relying on Livneh for needle
21 depth control for either the '774, the '536
22 or '812 Patent IPRs?

1 A I am not relying on the Livneh's
2 teaching to address the control of the
3 deployment of the needle; that's correct.
4 Q Okay. If we look at Paragraph 49 in
5 Livneh, Paragraph 39 (sic) refers to using a
6 coil 92 in connection with the movement of
7 the electrodes, right?
8 A Yes.
9 Q The coil 92 provides that electrical
10 connection to the electrode so that energy
11 can be delivered, correct?
12 A That's correct.
13 Q Okay. And looking at the figures in
14 terms of the operation in Livneh, if you
15 look, for example, at Figure 3 and Figure 4,
16 you would agree with me that mechanism 74
17 slides from a first position to a second
18 position and that tapered surface 82 pushes
19 on the electrode and the electrode holders,
20 correct --
21 MR. MUELLER: Objection --
22 Q -- so that electrodes can move from a

1 first position to a second position?
2 MR. MEULLER: Objection to form.
3 A The tapered surface is 84 on the
4 Figure 3. The 82 is the whole movable
5 assembly, but the tapered surface is surface
6 84.
7 Q Let me re-ask my question. So in Livneh
8 the mechanism 74 moves between a second
9 position to a -- let me strike that.
10 In Livneh mechanism 74 moves between a
11 first position and a second position, and
12 once it reaches that second position, the
13 angled surface 84 pushes on the electrodes
14 and the electrode holders, correct?
15 A The surface pushing against the
16 electrode at any position, but the related
17 position of those two will determine the
18 position of the needles. But you have
19 pressure basically at any time.
20 Q Okay. As that distal end 82 on the
21 angled surface 84 of the mechanism 74 in
22 Livneh moves from the first to second

1 position, it engages with the electrode
2 holders and the electrodes in Livneh,
3 correct?
4 A Yes. I think that's probably the
5 wording he's using, but high level is
6 correct.
7 Q And pressure is being provided to the
8 electrodes and the electrode holders as that
9 mechanism 74 moves from the first to the
10 second position, correct?
11 A So repeat the question, make sure I
12 answer it properly.
13 Q Sure. That mechanism 74 applies
14 pressure to the electrode holders and the
15 electrodes as the mechanism moves from the
16 first to second position, correct?
17 A I wouldn't have phrased it like that.
18 It doesn't pressure as the mechanism move.
19 It applies pressure -- it applies a force, or
20 pressure basically, overall. The system
21 applies a force. The surface 84 translate
22 the X axis into a Z axis, transfer the force.

1 It's a transmission system to transmit a
2 movement basically by transmitting a force,
3 which are physically linked to advance a
4 needle.
5 Q And because the mechanism is applying a
6 force or pushing on the electrode holder and
7 you want to make sure that you maintain an
8 electrical connection with the electrodes,
9 the coils that are being used have to have
10 some kind of degree of freedom to withstand
11 the force from the mechanism and also be able
12 to compress so that the electrodes can
13 puncture the skin and the coils can maintain
14 an electrical contact with the electrodes,
15 correct?
16 A Yeah. In the description the coils are
17 moving in only one degree of freedom. They
18 are only being displaced in the -- what we
19 said before, the Z axis, and the longitudinal
20 axis, yes. The coil are playing their role
21 of being a string and distorting and
22 basically extending to maintain contact

1 between the needle and the wire coils.
2 Q You agree that the coils would have to
3 have some kind of deflection and flexibility
4 in the -- I guess in the X axis so that when
5 the mechanism 74 applies that force to the
6 electrode holders, the electrical connection
7 is maintained, correct?
8 A Absolutely not. The way it describe --
9 the way it describe the system is guide to
10 move only in one direction, so the coil only
11 extend on the Z axis. And that they are
12 doing this needle extension to only displace
13 in one axis. At least I hope so. If not,
14 something would be really flawed in the
15 construction. But the way it is described,
16 it only displace in one axis. If not,
17 everything will break down.
18 The way the transmission work, again,
19 you have a friction to convert transitional
20 movement basically on the X axis into a Z
21 axis. And there should not be any movement.
22 They're always, you know, if it was at a

1 microscopic level, theres always some play.
2 But there should not be any significant
3 movement, either X, Y axis of the system.
4 System is designed to be well-guided to only
5 have Z movement, so the needle go down. If
6 you have X, Y axis, the system will have
7 undue friction. It would be inefficient.
8 Q In this particular system, the mechanism
9 would have to, then, only be able to move
10 from the completely retracted to the
11 completely extend position, such that it
12 wouldn't end up in the middle of the
13 configuration with the electrical holder,
14 correct?
15 MR. MEULLER: Objection to form.
16 A I'm not sure what you mean "in the
17 middle of it." I don't understand you. I'm
18 sorry. I don't understand.
19 Q Let me rephrase that.
20 If the mechanism is not fully extended,
21 you would end up in a situation where only
22 half of the coils would compress and the

other half wouldn't?
A The system is rigid, you -- it doesn't -- it only moves one axis. I don't believe the system will -- it's -- if you look, for instance, at Figure 9, it shows clearly the system only moves vertically; it does not move in an oblique fashion. I think, this is not -- the system is constrained to contain a pure vertical axis. This is much more clear in Figure 14, for instance. Let's look at the various figures.
Figure 19 is a different embodiment. It doesn't have the coils, so this -- when you look at it. The figure -- the Figure 19 is a different. But it's a different embodiment, but same thing on Figure 21, when the needle holder is rigid, there is no displacement in the different directions. The coil are purely moving on the Z axis.
Q Is -- excuse me.
Is Livneh limited to an embodiment where the needle holder is rigid?

1 A It's not limited, but, basically, many
2 of the embodiment -- let me read it again to
3 make sure I...
4 So in -- on 64, you see the
5 embodiment -- where the block 28 is formed of
6 flexible material. But in Paragraph 62, the
7 plate maybe formed of metal. Usually metal,
8 unless it's really a piece of aluminum foil,
9 which is not already disclosed, it's not
10 something that is elastic.
11 So he provides both embodiments; one
12 is -- would be a rigid, like in Paragraph 62.
13 One is a flexible block, and in 62 the block
14 is rigid; and therefore, only moves in one
15 direction.
16 Q And you mention that in the embodiment,
17 where the block is flexible, you -- Livneh
18 doesn't disclose using coils?
19 A Basically, the -- on the Figure 19,
20 it's -- the coils are not shown, basically.
21 So they may be used, but they are not -- they
22 are not specifically described. The coils

1 are very well shown, in Figure 18. They are
2 very well shown in Figure, let's see, 14, for
3 instance, which shows a rigid plate.
4 They are well shown on Figure 9, and you
5 can see in Figure 9, the coil are
6 well-guided, as I mention before, in a
7 cylindrical receptacle. So only allow them
8 to deform in one axis.
9 Q Well, I want to the try to understand
10 that a bit more, because in practice, as
11 Mechanism 74 moves and you can see, you know,
12 the first position in Figure 3, and the
13 second position in Figure 4.
14 So as Mechanism 74 moves between the
15 first position and the second position --
16 A Yes.
17 Q -- wouldn't there have to be some
18 flexibility in the electrode carriers so that
19 the electrodes are going into the skin
20 serially?
21 A It doesn't have to be. If the system
22 is -- again, so this is what happened when

1 you use a flexible plate, but if you look at
2 the drawing, the way they are in the other
3 figures I mentioned previously, the system
4 seems to be rigid and when you mention a
5 metal plate, so it depends.
6 It doesn't provide the exact mechanical
7 structure to constrain the plates, but
8 because the needle goes through a channel,
9 you can see on Figure 13, they go through a
10 channel, they cannot go oblique through those
11 channels. So they are, obviously, some
12 embodiment where the needle have to go
13 straight.
14 So Figure 19 -- Figure 19 shows a
15 flexible -- and you can see the material is
16 flexed.
17 Q I want to focus on the embodiments in
18 Figures 3 and 4.
19 A Yes. And -- but, again, you take it out
20 of context. Figure 3 or 4, basically, this
21 is kind of a cam effect. And A cam effect
22 you -- it does not have to -- it does not

1 have to be -- it shows the starting and the
2 end position, Figure 3 and 4. It doesn't
3 show any position in between.
4 And, basically, the system advanced, but
5 it doesn't mean that the system has to be --
6 that the movement is not homogenous along all
7 the needles.
8 And even to the extent you would not
9 accept that, in this case, it's preeing -- as
10 needle guided, you can see in Figure 19. The
11 needle are well-guided. This is Figure 19,
12 even 13, look at Figure 13, look at
13 Figure 19. The needle are very well-guided
14 within the X/Y position, so the screen would
15 only defect in the X direction. They would
16 not have to move in different direction.
17 Because the needle are guided -- very well
18 guided in the X/Y axis.
19 The needle -- the spring would only
20 deflect in this case. Would mostly deflect
21 in the Z axis.
22 MS. PENIZA: I move to strike all of

1 that because that was not responsive
2 to my question. And there was
3 actually no question pending.
4 Q So I want to move onto something else in
5 Livneh.
6 In your declaration for the '812 Patent,
7 and we can go there, if you like, it's
8 Exhibit 4 to your deposition, but it's the
9 declaration for the '812 Patent.
10 A Yes.
11 Q If you go to Page 119.
12 A I am there.
13 Q You map Housing 36 to the needle module
14 of the claims in the '812, correct?
15 A That's correct.
16 Q And you map the proximal end of the user
17 holder device to the handle position 34 --
18 38.
19 A 36 -- 38, that's correct.
20 Q Okay. We can go to Paragraph 33 of
21 Livneh, but even in the portion that your
22 quoting, Livneh describes Housing 36 as

1 connected to the handle portion, correct?
2 MR. MEULLER: Objection to form.
3 A He -- Livneh mentions several -- I think
4 several ways, but at least one way to do the
5 mechanical and electrical connection between,
6 basically, those two modules.
7 Q Okay. Let's go back to Livneh in
8 Paragraph 33.
9 Paragraph 33 states that, "Housing 36 is
10 connected to Handle Portion 38," correct?
11 A The handle portion -- so is the -- the
12 housing connected to handle portion 38, yes.
13 Q There is nowhere in Livneh describing
14 that the Housing 36 is separable from handle
15 portion 38, correct -- handles on the
16 expressed descriptions in Livneh?
17 MR. MEULLER: Objection to form.
18 A If I guess to my report the -- I think
19 I -- he thinks the needle being replaceable
20 individually and it would be obvious to
21 separate the module, that's I know --
22 Q I'm going to go back to my question,

1 because my question --
2 A Yes, I know your question, yes. I'm
3 still looking for the reports.
4 Q Sure. So I'm going to --
5 A For the Livneh description here.
6 Q I'm going to repeat it so this record is
7 clear.
8 There is no disclosure in the Livneh
9 describing Housing 36 as being separable from
10 Handle Portion 38, correct?
11 A The housing -- the connected --
12 obviously, connected it doesn't say it can be
13 disconnected.
14 Q Okay. And there is no disclosure of any
15 mechanism for any component in Livneh that
16 would allow the Housing 36 to separate from
17 handle portion 38, correct?
18 A Let me finish reading quickly.
19 No. He does not describe specifically a
20 mechanist to connect and disconnect those two
21 modules.
22 MS. PENIZA: Okay. We've been going

1 over an hour, so why don't we go off
2 the record.
3 (Whereupon, a recess was taken
4 from 12:55 PM until 1:23 PM.)
5 BY MS. PENIZA:
6 Q Welcome back. I know it was quick.
7 Other than Wes and Leonard, is there anyone
8 else present in the room with you?
9 A Nobody else.
10 Q Any other way to communicate with
11 others, other than by Zoom or whoever is in
12 the room with you?
13 A No.
14 Q Okay. Are you familiar with the
15 Miratone device?
16 A Not much. I've never seen it. I've
17 read about it, so I have some familiarity,
18 but I'm not extremely familiar with it.
19 Q Have you seen anything to indicate that
20 there was needle depth control in the
21 Miratone?
22 A So a needle that's -- sorry. The needle

1 depth -- repeat the question. I'm not sure I
2 understood the question.
3 Q Sure.
4 Have you seen anything to indicate that
5 the Miratone device included needle depth
6 control?
7 A Honestly, I don't remember. It's been a
8 while. I've looked at information on this
9 device and I don't remember the interface.
10 So I'm unable to answer the question.
11 Q You said that your -- you've read some
12 materials and you're generally familiar. I
13 want to get a sense for what you remember and
14 what you're familiar with about the Miratone
15 device.
16 A This -- I haven't looked at it,
17 basically, for about a year.
18 Q Okay. So you did not take a look at it
19 in terms of any opinions that you formed in
20 connection with the IPRs at issue here?
21 A I forget if it's mentioned in my report.
22 I forget if it's mention in my report or not.

1 I did not specifically open the mare -- all
2 of the Miratone material in reviewing the
3 report.
4 Q And you you've never actually seen one
5 physically, correct?
6 A That's correct.
7 Q Are you aware or do you know if the
8 device that's described in the Mehta
9 reference that you're relying on, was ever
10 commercialized?
11 A I know it has been used in the -- it
12 have been used in clinical trial. I believe
13 a variation of it was somewhat used, but I'm
14 not familiar with all commercial history of
15 this system and exactly what version was on
16 the market and was not on the market. So I
17 could not speak intelligently about it.
18 Q Do you know if the Miratone device was a
19 commercial embodiment of the device that's
20 described in Mehta?
21 A Sorry. To make sure I -- we talk about
22 the same thing.

1 Do you have any -- can you show me
2 anything to make sure we talk about the
3 same -- I see those device by name and I'm
4 not familiar with all those device.
5 Can you show me any kind of brochure? I
6 want to make sure we speak of the same
7 device, any material to tell me which a
8 Miratone is?
9 Q I'm just asking in the general if you're
10 aware --
11 A Again, I'm not familiar. I have no
12 familiarity with the commercialization of,
13 with the commercial aspect of those devices,
14 so I cannot answer this properly.
15 Q Okay.
16 A I believe I mentioned things about it in
17 my ICT report, I don't remember the details,
18 which one was commercialized or not.
19 Q Okay. I'd like to move onto the '774,
20 the '536, and the '812 Patents that's the
21 subject of the IPRs that you provided
22 opinions on.

1 A Yes.
2 Q You agree with me that the '774, the
3 '536, and the '812 share a common
4 specification, correct?
5 A That's correct.
6 Q Okay. So I'm going to ask you some
7 questions about your opinions with respect to
8 the '774 Patent, but if there's anything that
9 you think is different for the '536 or the
10 '812, please let me know.
11 A Yeah, the 774, I mean, the pages are a
12 bit different.
13 Q Yeah.
14 A Yes.
15 Q But I want to point you to the
16 declaration for the '774 IPR, so that would
17 be Exhibit 6 of your depo, but it's
18 Exhibit 1003 of the declaration.
19 A Yes. '774, okay.
20 Q Okay. So starting at Page 19, you
21 provide kind of a summery of the patent,
22 correct? Actually, at Page 15, my apologies.

1 A Yes. Reviewing the patent, yes.
2 Q Okay. And in Paragraph 37, you state
3 that, "The '774 Patent describes two general
4 ways in which the plurality of needles can be
5 utilized in the dermatological treatment
6 apparatus," correct?
7 A Yes.
8 Q And you note that one way is that the
9 needs may be fixed and or non-extendable as
10 illustrated at least in Figures 2B, correct?
11 A Correct.
12 Q Or the needles can be extendable via a
13 motor as illustrated in Figure 97 and 9D,
14 correct?
15 A That is what is written on Page 17,
16 correct.
17 Q Okay. And when the needles are extended
18 via the motor, those needles are extendable
19 needles in the '774 Patent, just like the
20 other need assembly patents describe that the
21 motor drives the needles between a retracted
22 and a deployed position, correct?

1 A Yes. (Reading) that is what is written.
2 Q Okay. And we can take a look at the
3 '774 Patent if you'd like, but would you
4 agree with me in the embodiments that
5 describe if it's non-extendable needles of
6 the needles assembly patents, you don't use a
7 motor to extend the needles, correct?
8 A I would tend to believe that, but I
9 can -- high level, if you look at the figure,
10 obviously, the figure -- none of the figures
11 showing the extended -- non-extendable needle
12 shows a motor. In the texts, I don't know if
13 there is a -- if it's that clearly
14 differentiated.
15 In the figures it's clear, in the
16 texts -- in the text, I'm not sure. The
17 text, they have many cases where it talks
18 about extendable or extended needles. So
19 it's not as clearly differentiated. I would
20 have to go line by line to properly answer
21 your question.
22 Q Sure. Maybe there's a way to short

1 circuit this and if you still need to go line
2 by line, let me know.
3 I'll refer you to Paragraph 41 of your
4 declaration, where you're discussing the
5 priority that the needle assembly patents are
6 entitled to.
7 I'll give you a moment to get there.
8 A I understand -- Paragraph 41, oh, sorry.
9 I'm looking at the wrong -- sorry. I'm
10 looking at the wrong declaration. My
11 apologies.
12 Yeah, the Paragraph 41 shows the history
13 of the patent.
14 Q And in your opinion, again, you can
15 continue reading your declaration if you
16 think I'm incorrect, but in your opinion, the
17 '774 Patent has these two embodiments, the
18 ones illustrated, for example, in Figure 2B
19 and the embodiments illustrated, for example,
20 Figures 9C, correct, we're on the same page?
21 A This is the -- okay. The figure in
22 the -- yeah, 2C. So we're talking 1A, 1B,

1 1C?
2 Q Yeah.
3 A 1A, 1B, yes.
4 Q Okay. So looking at Paragraph 42 of
5 your declaration, you note that independent
6 Claims 1 and 11 of the '774 Patent recite
7 both extending or extendable needles,
8 correct?
9 A Yes.
10 Q And in your opinion, extending needles
11 are needles like those that are illustrated
12 in embodiments shown in figures 1A through
13 1D; 2B through 2F; 3A and 3B, in the needle
14 assembly patents, correct?
15 A It's my opinion and I believe it's also
16 being accepted as a claim construction as
17 discussed during the ITC trial.
18 Q Okay. And then extendable needles are
19 what's illustrated in the embodiment shown,
20 for example, in 9C through 9D, correct?
21 A Figure 19, you said?
22 Q 9C through 9D.

1 A Okay. Yes. Okay. That would be one
2 embodiment of them.
3 Q Now, you opine that the '774 Patent is
4 not entitled to the priority date of Na '848,
5 correct?
6 A Repeat your question, make sure I --
7 Q You opine that '774 Patent and the rest
8 of the needle assembly patents are not
9 entitled to claim priority to the now Na '848
10 priority date, right?
11 A Yeah. I say that the chain was broken,
12 the chain in Na '848, yes.
13 Q Correct. And that's because, in your
14 opinion, the Na '848 Patent doesn't describe
15 an apparatus with extendable needles,
16 correct?
17 I'm at Paragraph 43 of your declaration,
18 if that --
19 A I say the HOA does not describe
20 apparatus to be extendable needles, that's
21 correct, yes, I mention that.
22 Q If I keep going down your opinions in

1 that paragraph, you also opine the Na '848
2 doesn't provide any illustration or
3 description of needles that are not fixed in
4 place, and it also doesn't provide any
5 illustration or description of a motor that
6 could be used for moving the needles,
7 correct?
8 A You missed a few words, but, overall,
9 yes, not fixed in place, removable, yes.
10 Q So the embodiment in the needle assembly
11 patent that are directed to extending
12 needles, don't include a motor, correct?
13 A Extending -- I remember well, extending
14 needles, yes, so I extended needles, so the
15 extending needle, yeah. What I remember is
16 when I wrote my initial report, it wasn't
17 clear what extended meant, and this was
18 defined later on during the ITC, but
19 extending is basically a fixed needle so they
20 don't imply the motor.
21 Q I just want to make sure that I
22 understand your testimony right.

1 So the embodiment in the needle assembly
2 patents directed to or covering extending
3 needles don't use a motor, correct?
4 A Yeah. And you make sure the needle
5 assembly, basically you can call it one or
6 the other. We don't have both features. You
7 can call it the needle module, the needle
8 assembly, it's a semantic question. There is
9 no movement one per se, so you can call it
10 one or the other.
11 Q I'm not asking needle assembly or needle
12 module.
13 My question is --
14 A Okay, yes.
15 Q -- in the embodiment in the needle
16 assembly patents directed to extending
17 needles, there is no motor to extend those
18 needles, correct?
19 A That's correct.
20 Q Whereas in the embodiment in the needle
21 assembly patents that cover extendable
22 needles, you do use a motor to extend those

needles, correct?
A Na is describing a motor to move them, yes.
Q Which Na?
A I see -- it's actually the same.
Q Right. Because we do have a reference called Na 848. I want to make sure we are precise in what we are referring to.
A Yeah. But the Na, the person called Na is the same author, but in the '774, you said you, and you is not me, you, so the author of the '774 Patent implies that the motor is used to move those needles in the extendable needles.
Q Okay. And, again, I just want to make sure that I follow your opinions correctly.
In the '774, '536 and '812 Patents, the embodiment directed to extendable needles use a motor to extend the needles?
A That is correct.
Q Now, according to the '774, '536 and '812 Patents, how is the distance that the

1 motor drives the needles determined?
2 A I know that there is a one example
3 showing a software algorithm where there was
4 a user interface to select it. I'm not sure
5 it is limited to that. This is one of the
6 options offered.
7 Q Okay. So -- sorry, go ahead.
8 A But the -- in some embodiments, the user
9 can select the operating depth within,
10 obviously, the operating parameter of the
11 needle module.
12 Q Okay. So you would agree with me that
13 in the '774, '536 and '812 Patents, the user
14 selects the depth of the needles, how far
15 they have to extend, as one of the parameters
16 that is then implemented in the system,
17 correct?
18 A Hold on a second.
19 Q Actually, I'll be more precise. I'm
20 looking at Paragraph 55 of your declaration,
21 in case that's helpful.
22 A Yeah. Because I think the check says

1 that may be used, not sure have to be used so
2 55 (reading). May be deployed in extension.
3 It's a may. So this is -- it doesn't have
4 to, it's a may.
5 Q Sure. But in the instances where the
6 needles are extending at a desired distance,
7 the user selects that as one of the
8 parameters that's then implemented by the CPU
9 which controls the motor for deploying the
10 needles, correct?
11 MR. MEULLER: Objection to form.
12 A I would have to go line by line, but in
13 my report and what I read in the patent, it
14 says may do that. So I'm not sure it's a
15 requirement.
16 Q How else would the user select the
17 needle depth? Excuse me. How else would the
18 user select how far the needles extend in the
19 '774, '536, '812 Patents?
20 A There may be other way to do it. It's
21 not -- it doesn't describe other way, but the
22 Patent, the way it's written, I don't think

1 it's limited to have the user selecting via
2 the interface. The interface may include --
3 I'm looking at the patent -- it's using may
4 most of the time.
5 I would have to go line by line to
6 things, but I think the verb "may" is used
7 almost each time. A user may select an
8 electrical signal density. May in -- English
9 is my second language, but in my
10 understanding of what I was taught at school,
11 may is not a requirement.
12 Q Okay. But you agree with me that in the
13 '774, '536 and '812, there is disclosure that
14 at least in the embodiments covering
15 extendable needles, one way that the needles
16 extend a desired distance is based on the
17 user selecting that distance and that
18 operational parameter being implemented by
19 the CPU of an algorithm, correct?
20 MR. MEULLER: Objection to form.
21 A May describe, because may is one of the
22 options.

1 Q Now, you reviewed the Na '848 reference
2 as well in forming your opinions, correct?
3 A That's correct.
4 Q Let me go back to the discussion we were
5 having regarding extending extendable
6 needles.
7 Okay. I believe you testified
8 previously that there's three ways that you
9 can meet the desired distance limitation of
10 the needle assembly patents.
11 A You talking about my direct testimony at
12 trial or in the deposition?
13 Q No, actually, I can point you -- let me
14 see if I have that, and if not, I can put it
15 on the chat. Give me one second.
16 MS. PENIZA: My apologies. My
17 computer is a little slow. We're
18 having some technical difficulties.
19 That doesn't make it easier.
20 Can you hear me?
21 A Yes. I can hear you, yes.
22 Did you put it on the -- is it

1 Exhibit 10, Exhibit 10, here?
2 Q Not yet.
3 A It's not there yet.
4 Q Okay. I've put on the chat, it'll be
5 Exhibit 11.
6 (Whereupon, Petitioner's Reply
7 to Patent Owner's Preliminary
8 Response for the '774 Patent was
9 marked as Exhibit 11 for
10 identification as of this date.)
11 Q This is the petitioner's reply to
12 Serendia's response to the IPR.
13 Are you familiar with this document?
14 A Okay. This is the Exhibit 1025. Okay.
15 Yes.
16 Q Okay. So this is the paper that Jeisys
17 filed in response to Serendia's preliminary
18 response to the petition for the '774 Patent.
19 Have you seen this before?
20 A I've read it, briefly, I didn't
21 spend time on it, but, yes.
22 Q So if we can go to Page 7.

1 A Okay.
2 Q Page 7 states:
3 "Dr. Woloszko testified that there are
4 at least three ways to meet the
5 desired distance of limitation."
6 Do you see where I'm reading?
7 A So this is Exhibit 1025, okay, sorry
8 1025.
9 Q Let me back up. This is going to be
10 Exhibit 11 to your deposition, just so that
11 it's clear, and it is the petitioner's reply
12 to the patent owner preliminary response.
13 A For some reason it didn't download.
14 Hold on a second.
15 Q It's also up on the screen if you'd like
16 to take a look.
17 A Okay. Let me see on the screen. It's
18 very small. Okay.
19 Q Okay. So let me restate my question.
20 In Page 7 of the petitioner's reply to
21 the preliminary response from the patent
22 owner, it states:

1 "Dr. Woloszko testified there are
2 at least three ways to meet the desired
3 distance limitation."
4 Do you see where I'm reading?
5 A Oh, yeah. Yes, yes.
6 Q And this is a paper that Jeisys filed.
7 Do you understand that?
8 A Yeah. And I believe this was during
9 my -- this was my direct testimony, I think.
10 MR. MEULLER: Objection to form.
11 Q So, in your view, there are three ways
12 to meet the desired distance limitation. The
13 first one is by selecting a cartridge with
14 needles of a particular length. The second
15 is by using a motor to extend the needles to
16 a programmed distance. And the third is by
17 adjusting the needle depth by manually
18 checking the needle location, correct?
19 A That's what is written there, yes.
20 Q You agree with that, correct? Those are
21 the three ways that you believe the desired
22 distance limitation can be met?

1 MR. MEULLER: Objection to form.
2 A I agree with what I said. But I think
3 the term program is being misread by some
4 people. Program doesn't mean enter through a
5 user interface. Program, it can be a
6 mechanical programming, it can be a firmware,
7 a hardware, a software.
8 Just the way, and this is really when we
9 talked about, the question was, can a motor
10 achieve a specific distance. And I said the
11 motor can, you have to program it to do that.
12 So, basically, I think we talked about it a
13 little bit earlier today.
14 With the stepper motor, you need to
15 define basically how to step the motor, the
16 stepping mechanism. Mehta mentions stepping
17 the stepping motors, so you defined how many
18 steps.
19 If it's a servo motor, we discussed
20 previously, we provide discussion. So
21 program doesn't mean -- just to go by the
22 user, program means that you stop the motor

1 and you don't limit it to a mechanical stop
2 and have the motor overheat or burn out.
3 Basically, you have some feature to have it
4 start and stop at some time.
5 Q You agree that programming means there
6 has to be an input for the operational
7 parameter that corresponds to the depth that
8 the needles have to extend, correct?
9 A There is an input on how much motor --
10 there is an input somewhere that will define
11 when the motor stops.
12 Q Okay. So you --
13 A You can define -- we define the
14 condition that will define the boundary
15 condition to stop the motor.
16 Q I'm going to make sure that I get an
17 answer to my question because I don't think I
18 did.
19 The programming that you're referring to
20 so that the needles extend a particular
21 distance would have to include an input of
22 the operational parameter regarding what that

1 particular distance is, correct?
2 MR. MEULLER: Objection to form.
3 A The input doesn't have to be by the
4 user. The input is in the system. And input
5 does not mean that it is adjustable by
6 anybody physically. Input means the system
7 include a variable in the software, in the
8 software mechanical system that basically
9 make the system stop in a certain position.
10 That's what input means.
11 Input doesn't mean input via user
12 interface of any kind. It can be that, it
13 may be that, it does not have to be. And
14 this is what I meant when I mentioned
15 programs.
16 Q But you still agree that you have to use
17 a motor to extend the needles to a programmed
18 distance, correct?
19 MR. MEULLER: Objection to form.
20 A Programmed travel distance, you program
21 the travel motor and it can end up so it end
22 up being the distance that's correct.

1 Q But you still agree with me that
2 regardless of how that input gets into the
3 program, the motor has to extend the needles
4 to that programmed distance, correct?
5 A By what you say program, you mean a
6 program like a software and the program can
7 be --
8 Q I'm not limiting program.
9 A Okay. Yes. Program is a black box that
10 can be of any kind, but there is some input,
11 some variable defined to stop the motor.
12 Q Right. And you have to program what
13 that distance is, correct?
14 MR. MEULLER: Objection to form.
15 A One way or the other there is a variable
16 used to do that.
17 Q So let me go back to my question. Which
18 is, if we look at the first way that you
19 believe the desired distance limitation can
20 be met, selecting a cartridge with needles of
21 a particular length, that would mean that you
22 could meet the desired distance limitation if

1 you're relying on extending needles, not
2 extendable needles, correct?
3 MR. MEULLER: Objection to form.
4 A I think it's out of context. Because,
5 if I remember -- I need to read the testimony
6 again, because the question, when I talked
7 about program, was about a motor. And --
8 Q I'm going to focus -- I'm sorry to
9 interrupt, Dr. Woloszko, but I want to make
10 sure that we're focusing on exactly what I'm
11 asking you because you're not answering my
12 questions.
13 A No. I understand, but here -- I need to
14 look at my testimony exactly how it is. So
15 I'm happy to look at it. The context, I
16 don't remember -- we need to look at the full
17 context of this question because I don't
18 remember answering this question in view of
19 extending needle.
20 I believe this question was a pure
21 context of extendable needle, but, again,
22 this has been -- we did that almost a year

1 ago. So I really need to look at the
2 Page 37, 38 of my direct testimony transcript
3 to properly answer your question. I'm sorry.
4 Q You're selecting a cartridge that has
5 needles of a particular length that means
6 that the cartridge has fixed length needles,
7 correct?
8 A The needles obviously on their own, the
9 needle is piece of metal, the needle itself
10 extended, but they do travel. So fixed
11 needle, everybody describe fixed needle,
12 nobody describe needle that's elastic.
13 So needle travel within -- the needle
14 module travels within the needle, so needle
15 assembly travel within the needle module.
16 But, again, the context of the question, I
17 would like to look at it, if you want to show
18 me the POPR at 37-38, let's look at the
19 context and see exactly what context this
20 question was asked. I cannot answer this
21 question out of the blue right now. I
22 remember mostly what happened then, but it

1 was six-hour testimony and I need to review
2 the transcript to give you a more precise
3 answer.
4 MS. PENIZA: I'm going to put on the
5 chat Exhibit 2125.
6 (Whereupon, Dr. Woloszco Hearing
7 Transcript Excerpts was marked
8 as Exhibit 12 for identification
9 as of this date.)
10 Q Which is your deposition testimony from
11 the International Trade Commission hearing.
12 A Okay.
13 Q And I'll direct you to PDF Page 68,
14 which is where this begins.
15 So the question was "Is it your view
16 that a user selecting a cartridge with a
17 particular needle length would satisfy the
18 desired distance limitation" --
19 A Sorry --
20 Q Let me finish my question, please.
21 A Tell me the page. You mentioned a page.
22 I ask you the page. So, you mentioned.

1 Q 68.
2 A Sorry, 68?
3 Q Yeah, PDF Page 68. It's on the screen.
4 A Okay. PDF 68. Yes, I cannot read --
5 yeah, it's mostly -- okay.
6 Okay. Go ahead.
7 Q Okay. So the question was:
8 "Is it your view that a user
9 selecting a cartridge with a particular
10 needle length would satisfy the desired
11 distance limitations in the Family Two
12 patents?"
13 And you testified:
14 "Yes, this would be one
15 embodiment that would satisfy this.
16 Doesn't mean adjustable, it means
17 desired distance."
18 Do you see where I'm reading?
19 A Yeah, I'm looking at the line here.
20 (Reading sotto voce.)
21 Q Okay. So I go back to my question. A
22 user selecting a cartridge with a particular

1 needle length meets the desired distance
2 limitation when you are referring to
3 extending needles, which are nonadjustable
4 needles, as defined by the parties, correct?
5 MR. MUELLER: Objection. Form.
6 A So your question is, is selecting an
7 extending needle if a fixed needle of a
8 specific length would satisfy the requirement
9 for selected length? Because the question
10 was incomplete.
11 Q No. My question is this: One of the
12 ways you opined that the desired distance
13 limitation could be met is by a user
14 selecting a cartridge with a particular
15 needle length, correct?
16 A That's what -- yes.
17 Q Okay. And for that particular way that
18 you contend the desired distance limitation
19 is met, that would only apply to
20 nonadjustable needles, which are extending
21 needles, as the parties agreed to in the ITC,
22 correct?

1 A No.
2 MR. MEULLER: Objection to form.
3 A No. That's not what I meant. I -- what
4 I believe I meant in this case was also
5 including motorized needles that would be --
6 if we -- to the extent you would read that
7 Mehta would only -- in cartridge in which one
8 fixed distance, only to the full extension,
9 which I don't believe is what he says, this
10 would be a fixed length.
11 When I say "fixed length," is only one
12 distance to which it can extend. If you say,
13 like, this length, so it could be extending
14 needle, could be extendable needle to only
15 one distance. It doesn't limit to no motor.
16 At least it's what I meant. Maybe I wasn't
17 clear the way I expressed it, but it's
18 exactly what I meant in my mind.
19 Q You're saying that selecting different
20 cartridges with different needle lengths --
21 let me back up.
22 Selecting different cartridges with

1 different needle lengths would meet the
2 desired distance limitations for the
3 extending needles, correct?
4 A That is correct.
5 Q Okay. Another way that you opine that
6 the desired distance limitation can be met is
7 by using a motor to extend the needles a
8 programmed distance, correct?
9 A Correct.
10 Q And that applies to the embodiment
11 covering extendable needles, correct?
12 A They're movable; they're extendable,
13 yes.
14 Q If we go back to the prior exhibit, the
15 seven -- petitioner's reply to the POPR, back
16 to Page 7.
17 A Okay. This is exhibit -- let me make
18 sure I have it in my -- which one is that?
19 What exhibit is that, exhibit?
20 Q It's not marked. It's Exhibit 11 to
21 your deposition. It's 20240509. It's
22 Paper 15 to the '774 petition. It's up on

1 the screen.
2 A Yeah, I know. But okay. Let's see
3 what's on the screen.
4 Q It was just put in the chat for you in
5 case that's easier, Dr. Woloszko.
6 A Okay. Good, yeah. This is the Woloszko
7 six something?
8 Q Exhibit 11, Woloszko 11.
9 A I have to move down. I apologize. I
10 know you have it. Make sure I download it
11 and...
12 Okay. I have it open, and I know you
13 have it. What page are we looking?
14 Q Page 7.
15 A Hold on. I lost the Zoom here.
16 Here it is. Yes. The screen is blank.
17 I don't see anything on the screen right now.
18 Is it just me, or?
19 Q I think so. I see the exhibit on the
20 screen.
21 (Technical difficulties.)
22 A Okay. It's back now.

1 Q Okay. Great. So the record is clear,
2 we're at Exhibit 11, which is the
3 petitioner's reply to the POPR, and I'm at
4 Page 7, where you -- your testimony regarding
5 how the desired distance limitation can be
6 met.
7 A Yes, okay.
8 Q The third way is adjusting the needle
9 depth by manually checking the needle
10 location.
11 Do you see where I'm reading?
12 A In addition to selecting the cartridge.
13 Manually checking the needle location, yes.
14 Q So that just means you manually check
15 the location of the needles, and you adjust
16 it accordingly, manually, correct?
17 A He is manually checking, doesn't mean
18 you're adjusting manually. It says you
19 manually check, which is -- you don't
20 manually check, but it doesn't mention how
21 this is adjusted. It's you check
22 basically -- it says manually check and

1 adjusting a needle. It doesn't have to be
2 manual to adjusting the needle. The manually
3 is in this sentence refer to the checking.
4 Q Okay. You would have to use a motor to
5 extend the needles to a programmed distance,
6 or you would have to manually reposition the
7 needles, correct?
8 MR. MEULLER: Objection to form.
9 A They are -- this is a very general
10 statement. It can be done automatically; it
11 can be manually; it can by use -- many ways.
12 It can be done manually -- manually,
13 medically by moving a part with your hand.
14 It can be using a needle. It can be using an
15 algorithm that goes to a certain impedance.
16 It's not limited in the way it's written
17 here and the way I meant. Basically, you
18 check where it is, and you adjust the
19 position in consequence. I don't think I
20 limited my answer to how you move the needle
21 to get there, right. It doesn't really
22 matter in this context. It's just to get the

1 needle to a desired position.
2 Q If we go back to Exhibit 7.
3 A Exhibit 7. Okay. This is the IPR.
4 Okay.
5 Q This is the institution decision.
6 A Yes.
7 Q Okay.
8 A What page are you?
9 Q I am on Page 11.
10 A Okay.
11 Q The last full paragraph about halfway
12 through the board notes:
13 "As Jeisys explains, the desired
14 distance limitation can be met by
15 programming the system to extend the
16 needles to a desired distance, as
17 opposed to being an unprogrammed
18 distance, or by using nonadjustable
19 needles of a particular length."
20 Correct?
21 A That is correct.
22 Q Okay. So would you agree with me that

1 in the first way, programming the system to
2 extend the needles a desired distance, that
3 would cover the embodiments directed to
4 extendable needles, correct, because a motor
5 is being used?
6 MR. MEULLER: Objection to form.
7 A Do all the claims of extendable mention
8 a motor. I think there are some claims made
9 extended or extendable. They don't -- so if
10 you refer to the Family Two patent, I
11 believe -- I think it's '774 -- there are
12 some claims.
13 The first -- some of the first claim
14 mention extended or extendable, and then the
15 motor is not implied on the extendable. But
16 those would include extendable needle that
17 move, that are movable, I think, if I
18 remember. While I have the '774 open here,
19 and let me check quickly what you referred
20 to.
21 Yeah, Claim 1 of Patent '774 mention
22 extending or extendable needle and does not

1 have a motor. So the motor is not required
2 in '774 Patent to have extendable needle.
3 Q Do you understand that Claim 1 has been
4 disclaimed in the '774 Patent?
5 A I understand, but you asked me first
6 when -- you asked me -- I understand it's
7 been disclaimed by you, but in view of the
8 patent here, the term "extendable" in the
9 view of the whole patent, whether it is
10 claiming or not to the whole patent, the
11 term -- and I'm not a lawyer, so the way I
12 read the patent, I read here that extendable
13 does not require motor in Claim 1. I
14 understand you disclaimed it.
15 Q Claim 1 talks about extending needles,
16 which don't require motor, and extendable
17 needles, correct?
18 A Yes.
19 Q Okay. So I'll go back to my question,
20 which is when Jeisys explains that there is
21 two ways to meet the desired distance
22 limitation by programming the system to

1 extend the needles to a desired distance, you
2 agree with me that way covers the embodiments
3 directed to extendable needles, correct?
4 A Once again, the Claim 1 mentioned
5 extendable needle without mentioning a motor
6 so it --
7 Q I'm not talking about a motor,
8 Dr. Woloszko --
9 A Okay. Yes. Okay. Yes.
10 Q -- my question.
11 A Yes.
12 Q So you agree with me that the first way
13 that the desired distance limitation can be
14 met, according to Jeisys, can be by
15 programming the system to extend the needles
16 to a desired distance, and that applies only
17 to the embodiments directed to extendable
18 needles, correct?
19 MR. MEULLER: Objection to form.
20 A Programming the distance. The term
21 "programming" in this case is -- we have to
22 take "programming" in the broad sense.

1 Basically if it's done manually, the
2 programming is done by the user who pushes
3 the needle the right distance. So the
4 programming has a very, very broad sense,
5 meaning you get a needle displace up to a
6 desired location, particularly --
7 Q Let me relay my understanding. Your
8 view of programming the systems include the
9 user manually inserting the needles and
10 retracting the needles a particular distance?
11 A If you get a feedback where needle is,
12 yes.
13 Q The programming the system, in your
14 view, includes the user manually inserting
15 the needles just a particular distance?
16 A So when you design a medical device and
17 for FDA, you include the user as part of the
18 system. And there was a lot of FDA
19 regulation of that, so the user is part of
20 the system obviously, the device that is done
21 by the system.
22 So when you say "program the system" --

1 so basically here we talked about feedback
2 before, you pull back feedback so the -- that
3 you program the system to give a feedback so
4 the user, you know, has the feedback to know
5 where to stop, so you would include that.
6 Q That's not my question, Dr. Woloszko. I
7 want to make sure we focus on my question
8 because we are not focusing on what I'm
9 asking you.
10 Is it your opinion that programming the
11 system to extend needles a desired distance
12 would include a user manually inserting the
13 needles just to a particular depth?
14 A It may -- yes. It can include that,
15 yes.
16 Q So manual insertion of the needles, in
17 you view, includes programming the system to
18 extend the needles a desired distance?
19 A No. The other way around; programming
20 the system include the user (inaudible).
21 Q Okay. And I want to make sure that
22 we're focused here because we're talking in

1 the context of the needle assembly patents.
2 There is nowhere in the needle assembly
3 patents where you extend the needles a
4 desired distance simply manually by the user,
5 correct, when you're talking about the
6 extendable needles?
7 MR. MEULLER: Objection to form.
8 A Once again, I go back to Claim 1, that
9 you have disclaimed, but Claim 1 does not
10 mention a motor, so it doesn't exclude a
11 manual insertion.
12 Q I don't want to focus on Claim 1,
13 because Claim 1 refers to extending needles
14 and extendable needles.
15 So let's focus on the claims so that we
16 are precise, because I think this is
17 important.
18 The claims at tissue for the '774 Patent
19 are Claims 13 and 14, correct?
20 A Yes.
21 Q Okay. And if you look at Claim 13,
22 Claim 13 requires a mechanism for causing the

1 plurality of extendable needles to extend the
2 desired distance, correct?
3 A Yes.
4 Q And Claim 14 requires a motor --
5 A Yeah. But Claim 14 --
6 Q Let me finish my question, please.
7 A Okay. Finish, please.
8 Q We're not going to have a clear record.
9 Claim 14 requires a motor to cause the
10 plurality of extendable needles to extend the
11 desired distance, correct?
12 MR. MUELLER: Objection to the form.
13 A Claim 13 doesn't require motor.
14 Claim 14 does, but not Claim 13.
15 Q Okay. Let's go back even one more
16 claim.
17 So you mention Claim 11 directed to
18 extending and extendable needles, correct?
19 A Claim 11, okay. Yes, the same thing as
20 Claim one, yes.
21 Q Okay. Claim 12 is only directed to
22 extendable needles, correct?

1 A Yes, that's correct.
2 Q And therefore, Claim 13 and Claim 14,
3 which depend on Claim 12, are only directed
4 to extendable needles, correct?
5 MR. MEULLER: Objection to form.
6 A That's correct. And a mechanist --
7 doesn't mean -- a mechanist can be manual
8 system. It's a mechanical -- it's a
9 mechanical system that, basically, can
10 transmit a force or kind of input into a
11 movement and it can be a force, it can be,
12 basically, what we discussed before in
13 Livneh, is a mechanist to insert a needle, he
14 doesn't need a motor.
15 Q It could be an actuator, it could be any
16 kind of mechanism, such as a motor but it's
17 not limited to a motor, correct?
18 A It can be a motor; it can be, also, be
19 totally manual.
20 Q What is something "totally manual"?
21 A As I said, like Livneh system, where you
22 have a mechanical system, that, basically,

1 the user exerts the pressure or a force or
2 movement of some kind of a trigger that
3 would, basically, translate, you know, from
4 one direction to another direction of the
5 needle. Like, exactly, like, how Livneh
6 describes, that would be the mechanist,
7 Livneh described a mechanical mechanist.
8 Q Livneh discloses a mechanism that has an
9 actuator and other components to move the
10 needles from the first position to the second
11 position, correct?
12 A Livneh described in one option the
13 actuator, such as a motor. But Livneh -- the
14 figure we looked at was a manual system. We
15 disclosed the plain, the oblique plain that
16 would put pressure on the needle assembly
17 that make them move over the translator X
18 axis movement into a -- movement and force
19 into a Z axis displacement of the needle.
20 This is the mechanics, which is purely, which
21 doesn't involve any energy except the energy
22 from the user.

1 Q Dr. Woloszko, I want to focus on the
2 needle assembly patents and what is described
3 on the scope of the needle assembly patents.
4 So with that in mind, we have agreed,
5 previously, that the needle assembly patents
6 have two sets of embodiments; one covering
7 extending needles and one covering extendable
8 needles, correct?
9 MR. MEULLER: Objection to form.
10 A We said that they are two -- we
11 discussed that, basically, in the overall
12 patent specification, there was a part where
13 the needle, basically, fixed, and then there
14 was a part where the needle is movable and
15 they include a motor.
16 Q Okay. And you agreed with me
17 previously, and that is the opinion that you
18 provided in your declaration, that for the
19 fixed non-extendable needles, you don't use a
20 motor, correct?
21 A Yes.
22 Q Okay. And for the extendable needles,

1 you do, correct?
2 A You may.
3 MR. MEULLER: Objection to form.
4 A The patent everywhere says you may use
5 it, it doesn't require.
6 Q A motor or a mechanism, correct?
7 MR. MUELLER: Objection.
8 A A motor or a mechanist.
9 Q Okay. So I think we're on the same
10 page.
11 A A mechanist doesn't mean it provides any
12 sort of energy.
13 Q Excuse me? I didn't get your answer.
14 A Mechanist doesn't mean that you don't
15 use any source of energy except the energy
16 provided by the user.
17 Q I think there were too many double
18 negatives there.
19 A What I'm saying is a mechanist is not
20 limited to any -- it doesn't limit -- doesn't
21 involve -- is not -- you do not have to have
22 an actuator in a mechanist. Many mechanists

1 are manual; like a bicycle is a mechanist
2 because there is no motor, expect a bike.
3 Q In the context of the needle assembly
4 patent, four extendable needles, whether a
5 mechanism is disclosed to --
6 A No, you --
7 Q Let me finish my question.
8 A I'm sorry. I thought you were finished.
9 Go ahead.
10 Q In the context of the needle assembly
11 patents, what other mechanism is described
12 for causing the plurality for extendable
13 needless to extend a desired distance?
14 A The only mechanism -- the only actuator
15 or mechanism that is disclosed is the motor;
16 but again, the specification mention may, so
17 it does not exclude any other form of
18 mechanism.
19 Q You're aware that the parties agreed on
20 what the proposed construction for the
21 mechanism would be at the ITC, correct?
22 A I don't remember what was -- are we on

1 mechanist now?
2 Claim construction, I should have a
3 claim construction here.
4 Okay. I'm looking at my reports.
5 Claim construction. Claim construction
6 Page 8, yeah.
7 Yeah, it doesn't mention it here in my
8 report, Page 8, the claim construction.
9 Do you have the table of the claim
10 construction, the ITC claim construction, it
11 was agreed? I don't have it directly in
12 front of me here. I know it was a
13 multipage --
14 Q Let me see if I can find it for you.
15 Give me one second.
16 Sorry. I am going to put on the chat --
17 actually, you may have it. This would be
18 Exhibit, I think 13 to the deposition, but
19 this is Exhibit 1009 to '774 IPR.
20 A Do I have it here? Sorry. Let me see
21 what I have here.
22 Let me look.

1 Exhibit 10, you have it here?
2 Q 1005?
3 TECHNICIAN COOKE: Sorry, Counsel, is
4 it 1005 or 1006? Because I believe
5 you posted 1006, but I have both of
6 those.
7 MS. PENIZA: Apologies, Malcolm. Yes,
8 it's the 1006.
9 (Whereupon, Post-Markman Hearing
10 Joint Claim Construction Chart
11 was marked as Exhibit 13 for
12 identification as of this date.)
13 MR. MUELLER: Just so the record is
14 clear, he does not have Exhibit 1006
15 in front of him, so he's downloading
16 it.
17 A Is it posted somewhere here --
18 Q I put it on the chat. It's
19 Exhibit 1006, which will be Exhibit 13 to
20 your deposition, and it's Pages 5 and 6.
21 A Oh, okay. Here it is. This is Woloszko
22 13, is it the last one?

1 Q Yeah.
2 A Okay.
3 Q I'll guide you to Page 5 and 6 of the
4 exhibit. I'll give you a moment to look
5 through them and then I'll ask my question.
6 A Okay. This document shows the AG
7 decision here, but I think it was -- within
8 one or more drive shaft.
9 Q Dr. Woloszko, for reference, this term
10 never went to the ALJ, the parties --
11 A Yeah.
12 Q -- constructions. But if you look at
13 them, generally, all of the parties agreed
14 with the desired function, and they provided
15 different structures that could be used to
16 perform that function, correct?
17 A Yeah, yeah. Okay.
18 Q Okay.
19 A So yeah, they have equivalent so --
20 Q I want to make sure that we're on the
21 same page here.
22 A Yes.

1 Q So you have a motor, shafts that are
2 used with the motor, modular controllers,
3 various different structures that could be
4 the mechanism claim --
5 A Yes.
6 Q -- in Claim 13 of the '774 Patent,
7 correct?
8 A Yeah, I'm reading the old definition
9 here. I read this a year ago and it seems
10 that -- closing one of motors -- this is
11 structures -- it doesn't really -- I mean, it
12 doesn't really defines it. It defined the
13 function, causing priority needle to extend
14 the corresponding structure, the motor --
15 this is the structures defined --
16 Q Okay. So I want to make sure that we're
17 on the same page. So, again, you have to
18 have some kind of structure; motors, needle
19 deployment modules, ways to control the
20 motor, driveshafts, et cetera, those are the
21 mechanisms, at a high level, that are claimed
22 in Claim 13 of the '774, correct?

1 A I don't know what the 35USC112 is -- but
2 the definition here mentions that the
3 corresponding structures are motors, LED, and
4 I don't know what LED has to do with that,
5 this is what -- I -- motor controller,
6 module, these are the structures describing
7 the patent to -- describing the patent to
8 involving the mechanic mechanism.
9 Q I just want to be clear.
10 When you're talking about the mechanism
11 that caused the plurality of extendable
12 needles to extend, we're not just talking
13 about manual operation, correct?
14 A No. I never said it was limited to
15 manual operation.
16 Q Okay. You have to have motors and
17 modules that control the motors and
18 driveshafts or any other type of structure
19 that, then, is used that is caused the
20 needles to examined a desired distance,
21 correct?
22 A Those would be included in the term

1 mechanism.
2 Q Okay.
3 A My point was, I didn't believe that --
4 and again, here, the definition and
5 equivalent, and the equivalent it's
6 relatively broad. I would not limit to the
7 motor. There is no doubt the motor and all
8 the driveshaft are part of the mechanism.
9 It's not limited to only that. That's all my
10 point.
11 Q Okay. But it's not just a user --
12 A Yeah.
13 Q -- the needles, like an acupuncture
14 device, like the other device that covers
15 extending needles?
16 A We agree on that.
17 Q I just wanted to make sure we're on the
18 same page.
19 A Yes.
20 Q And so with the understanding that
21 certain claims have been disclaimed in the
22 needles assembly patents, do you agree with

1 me that the claims at issue for the '774, the
2 '536 and the '812, are only directed to
3 embodiments for extendable needles?
4 MR. MEULLER: Objection to form.
5 A How's the claim -- Claim 13 -- hold on.
6 Q 13 and 14 -- hold on. So let's go
7 patent by patent so that it's clear.
8 A 13, yeah. We have a '774 here.
9 Q Okay.
10 A '744 is the one that has this
11 limitation.
12 Q Let me ask you a question so that we can
13 get through this quickly and hopefully --
14 A Yes.
15 Q -- finish up here.
16 If I look at Claim 13 and Claim 14 of
17 the '744 Patent, those claims are limited to
18 embodiments directed to extendable needles,
19 correct?
20 MR. MEULLER: Objection to form.
21 A Yes.
22 Q They don't cover extending needles,

1 correct?
2 MR. MEULLER: Objection to form.
3 A They -- the Claim 13 and those claims
4 are mentioned -- the term extendable needles,
5 to the extent, yes.
6 Q Okay. If we go to the '536 Patent, and
7 we can pull that up.
8 (Whereupon, United States Patent No. 9,350,536 was
9 marked as Exhibit 14 for identification as of this
10 date.)
11 A I have it in front of me. '536.
12 Q Claims 1 and Claim 11 are the only
13 independent claims, correct?
14 A Yes. I believe so.
15 Q Give me a moment to read through those,
16 but those claims are limited to extendable
17 needles, correct?
18 A That is correct.
19 Q And if we go to the '812 Patent.
20 (Whereupon, United States Patent No. 10,869,812 was
21 marked as Exhibit 15 for identification as of this
22 date.)

1 A Even here -- so Claim 1 movable needles,
2 the extendable.
3 Q Right. So you agree with me that the
4 claims of the '812 Patent are also limited to
5 extendable?
6 A Yeah, one is, basically, it describes
7 movable needles -- basically, it's deployable
8 needle assembly. So these are deployable
9 needles.
10 Q Okay.
11 A Claim 12, which is the second
12 independent claim are deployable needle
13 assemblies.
14 Q Okay. And, in fact, the '812 Patent,
15 Claim 2 requires a motor coupled to the
16 needle assembly to cause the plurality of
17 needles to extend the desired distance,
18 correct?
19 A That is correct.
20 Q And so, again, Claim 2 and the claims
21 that depend from it are also limited to
22 extendable needles, right?

A Claim 2 and I'm sorry. The other one was?
Q And the claims that depend from Claim 2.
A Independent from Claim 2, so it would be three, four, five, six -- Claim 7 and 8.
Q I'll re-ask my question.
Claim 2 and the claims that depend from it are limited to the embodiment directed to extendable needles, correct?
A Yeah, I thought I answered that, yes.
Q My apologies. I didn't hear.
A Maybe I should have spoken louder. I'm sorry.
Q No worries.
Claim 13 also is directed to a motor coupled to the needle assembly to extend the plurality of the needles a desired distance, correct?
A Claim 13 include the motor, yes.
Q Okay. And so the claims that depend on Claim 13 and Claim 13 are limited to embodiments directed to extendable needles,

1 correct?
2 A Yes.
3 MS. PENIZA: Why don't we take a break
4 so I can go through my outline and see
5 if I have anything else. I just need
6 maybe 10 minutes.
7 (Whereupon, a recess was taken
8 from 2:35 PM until 2:39 PM.)
9 Q Just a few more questions.
10 I think we are in agreement that the
11 various device -- the motor can be used to
12 extend the needles, correct?
13 A The motor may be used to extend the
14 needles, that's correct.
15 Q Motor or mechanism.
16 A Or mechanism, yes.
17 Q So if I focus on the needle assembly
18 patents, right?
19 A You mean the Family two patents?
20 Q '774 -- so just nomenclature --
21 A Yeah.
22 Q -- wise, when I refer to --

1 A Yeah, yeah. Okay.
2 Q -- to needle assembly patents or the
3 Family two patents, I'm talking about the
4 '774, '536, and '812 Patents.
5 Are we on the same page?
6 A Yeah, we're talking about the same
7 thing.
8 Q The motor can extend the needles, for
9 example, the full length of those needles,
10 correct?
11 A It can do that, yes.
12 Q If the user wanted the motor to extend
13 less than the full length of the needles, I'd
14 have to program the motor so that the needles
15 only extend the distance that the user
16 selects or desires, correct?
17 A I mean, you -- not you, but somebody,
18 obviously, somebody would program. It can be
19 either the designer, the user, or somebody
20 else, but there was somebody -- somebody
21 provides a parameter in the system to limit
22 the needle extension deployment or whatever

1 you call it, yes.
2 Q That's a more accurate way to say it.
3 So the system, it would have to be
4 programmed somehow, someway to receive some
5 input so that the motor extends the needles a
6 desired distance?
7 MR. MEULLER: Objection to form.
8 A I would agree on the general meaning of
9 that, yes.
10 Q Okay. And for the '744, '536, and '812,
11 one of the operational parameters that's
12 input into the system so that the motor knows
13 how far to extend the needles is a selected
14 depth, correct?
15 A So the specification said that -- the
16 specification shows an algorithm and he said
17 this algorithm may be used. So one of way to
18 program that is a user input distance.
19 Q What other way could the motor be
20 programmed to extend needles at desired
21 distance?
22 A You asked me in general, or if it's

1 described -- the patent doesn't describe any
2 other way, but it does not exclude in any
3 other way.
4 Q Okay.
5 MS. PENIZA: Okay. I think that's all
6 I have, Dr. Woloszko. Thank you for
7 your time today. Thank you.
8 MR. MUELLER: No cross.
9 We'll order a copy and a rough.
10 (Whereupon, this examination was
11 concluded at 2:43 PM)
12
13
14 _____
15 JEAN WOLOSZKO, PH.D.
16
17 Subscribed and sworn to
before me on this ____ day
18 of _____, _____.
19 _____
Notary Public
20
21
22

1
2 I N D E X
3 WITNESS: JEAN WOLOSZKO, PH.D.
4 EXAMINATION BY PAGE
5 MS. PENIZA 5
6
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11 Jean Woloszko in
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13 for Inter Partes
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15 Patent No. 9,775,774
16 Exhibit 2 Substitute 13
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18 Jean Woloszco for
19 '536 Patent
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Exhibit 3	Substitute Declaration of Dr. Jean Woloszco for '812 Patent	16
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1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC
2 I, KIARA MILLER, Certified Reporter and
3 Notary Public within and for the State of New York
4 do hereby certify:
5 That JEAN WOLOSZKO, Ph.D., the witness whose
6 deposition is hereinbefore set forth, was duly sworn
7 by me before the commencement of such deposition and
8 that such deposition was taken before me and is a true
9 record of the testimony given by such witness.
10 I further certify that the adverse party,
11 JEISYS MEDICAL INC., was represented by counsel at the
12 deposition.
13 I further certify that the deposition of
14 JEAN WOLOSZKO, Ph.D., occurred virtually via zoom
15 on Thursday, October 24, 2024, commencing at 9:58 a.m.
16 to 2:43 p.m.
17 I further certify that I am not related to
18 any of the parties to this action by blood or
19 marriage, I am not employed by or an attorney to any
20 of the parties to this action, and that I am in no way
21 interested, financially or otherwise, in the outcome
22 of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 31st day of October, 2024.

Kiara Miller

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