

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 IPR2024-00386

11 Patent No. 9,480,836
12

13 REMOTELY CONDUCTED DEPOSITION OF

14 JEAN WOLOSZKO, PHD

15 THURSDAY, OCTOBER 10, 2024

16 9:02 1 CST
17
18
19

20 JOB NO.: 556331

21 PAGES: 1 - 93

22 REPORTED BY: KARISA EKENSEAIR, CCR RPR RMR

1 DEPOSITION OF JEAN WOLOSZKO, PHD, CONDUCTED VIA
2 ZOOM VIDEOCONFERENCE.

3
4
5
6
7
8
9
10 Pursuant to notice, before Karisa J.
11 Ekenseair, Certified Shorthand Reporter in and for
12 the States of Arkansas, Oklahoma, Missouri,
13 Illinois, Tennessee, Georgia, New Mexico,
14 Washington, and California; National Registered
15 Professional Reporter; National Registered Merit
16 Reporter; Notary Public in and for the State of
17 Arkansas.

1 A P P E A R A N C E S
2 ON BEHALF OF THE PETITIONER (VIA ZOOM) :
3 WESLEY O. MUELLER, ESQUIRE
4 JAMES SANNER, ESQUIRE
5 LEONARD Z. HUA, ESQUIRE
6 LEYDIG, VOIT & MAYER, LTD.
7 TWO PRUDENTIAL PLAZA, SUITE 4900
8 180 NORTH STETSON AVENUE
9 CHICAGO, ILLINOIS 60601-6731
10 312-616-5600
11
12 ON BEHALF OF THE PATENT OWNER (VIA ZOOM) :
13 CHARLES H. SANDERS, ESQUIRE
14 LATHAM & WATKINS LLP
15 200 CLARENDON STREET
16 BOSTON, MASSACHUSETTS 02116
17 617-948-6000
18
19 ALSO PRESENT:
20 EYAL FILKOVWKY, REMOTE TECHNICIAN
21
22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

T A B L E O F C O N T E N T S

PAGE

STYLE AND NUMBER..... 1

APPEARANCES..... 3

WITNESS: JEAN WOLOSZKO, PHD

EXAMINATION BY MR. SANDERS..... 7

EXAMINATION BY MR. MUELLER..... 86

CERTIFICATE OF REPORTER..... 92

EXHIBITS

(ATTACHED TO TRANSCRIPT)

NUMBER DESCRIPTION PAGE

EXHIBIT 1003 DECLARATION OF DANY BÉRUBÉ,
PH.D..... 16

EXHIBIT 1005 GANZ PATENT APPLICATION
PUBLICATION..... 45

EXHIBIT 1006 LIVNEH INTERNATIONAL
APPLICATION..... 68

EXHIBIT 1007 HANTASH INTERNATIONAL
APPLICATION..... 83

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

EXHIBITS		
(ATTACHED TO TRANSCRIPT)		
NUMBER	DESCRIPTION	PAGE
EXHIBIT 1014	MANSTEIN PATENT APPLICATION PUBLICATION.....	20
EXHIBIT 1030	1030 INTERNATIONAL STANDARD, IEC 60601-2-2, MEDICAL ELECTRICAL EQUIPMENT -PART 2-2.....	75
EXHIBIT 1031	HRUZA ARTICLE, SKIN REJUVENATION AND WRINKLE REDUCTION USING A FRACTIONAL RADIOFREQUENCY SYSTEM.....	26
EXHIBIT 1037	SUBSTITUTE DECLARATION OF DR. JEAN WOLOSZKO IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,480,836.....	10
EXHIBIT 2004	EXPERT REPORT OF JEAN WOLOSZKO-REDACTED.....	35

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

EXHIBITS		
(ATTACHED TO TRANSCRIPT)		
NUMBER	DESCRIPTION	PAGE
EXHIBIT 2026	UNITED STATES PATENT NUMBER	
	6,766,202.....	10
EXHIBIT 2033	HEARING TRANSCRIPT HELD	
	DECEMBER 11, 2023 (EXCERPTS)...	42
EXHIBIT	LETTER FROM THE FOOD AND DRUG	
CX2845.1	ADMINISTRATION DATED JUNE 17,	
	2022.....	80

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

2 JEAN WOLOSZKO, PHD

3 of lawful age, being first duly sworn, deposes and
4 says in reply to the questions propounded as
5 follows:

6 EXAMINATION

7 BY MR. SANDERS:

8 Q Good morning, Dr. Woloszko.

9 A Good morning, Mr. Sanders.

10 Q It's nice to see you again.

11 A Same here.

12 Q You understand that this is a deposition
13 in an inter partes review proceeding involving the
14 '836 patent?

15 A Yes.

16 Q Is there any reason you cannot testify
17 truthfully and accurately today?

18 A No reason.

19 Q Where are you today?

20 A I am in the Leydig office in downtown
21 Chicago.

22 Q Is there anyone else there in the office

1 with you?

2 A Yes. There is Mr. Mueller and Leo, what
3 is your last name Leo? Sorry, Leo Hua. Sorry.

4 MR. HUA: H-U-A.

5 A H-U-A-N-G.

6 Q And other than through the Zoom, are you
7 communicating with anyone in the room or remotely
8 in any other way?

9 A No.

10 Q So just as a reminder as the technician
11 mentioned before we started, it's important that
12 we try to avoid speaking over one another today
13 just as we did in our in-person depositions, but
14 it's even more critical over Zoom because Zoom can
15 only pick up one speaker at a time. So I'd
16 appreciate if you can work with me on that today.

17 A I'll do my best. I know we try -- I will
18 do my best. Yes.

19 Q This is not the first time you've
20 testified about validity issues relating to the
21 '836 patent, right?

22 A Correct.

1 Q You were deposed under oath about validity
2 issues relating to the '836 patent in the ITC
3 investigation, right?

4 A Yes.

5 Q And you also testified under oath at trial
6 at the evidentiary hearing in the ITC about
7 validity issues relating to the '836 patent,
8 right?

9 A Yes, I have.

10 Q Since we already have a significant amount
11 of testimony from you under oath about validity
12 issues relating to the '836 patent, I'm going to
13 try to keep this efficient by avoiding retreading
14 the same ground so that all of us can get back to
15 the other things we have to do.

16 A Excellent.

17 Q Now, when the inter partes review
18 proceeding for the '836 patent was filed, you did
19 not submit a declaration with it at that time,
20 right?

21 A That's correct.

22 Q You later submitted a substitute

1 declaration, correct?

2 A Yes.

3 Q So let's take a look at your substitute
4 declaration which is Exhibit 1037.

5 (Exhibit 1037 marked for identification.)

6 A I don't have it in front of me.

7 Q We're going to put it up on the Zoom.

8 A Yeah.

9 Q This is your substitute declaration in the
10 IPR proceeding for the '836 patent, right?

11 A Correct.

12 Q And in your substitute declaration, you
13 refer to one of your patents, U.S. Patent No.
14 6,766,202.

15 Do you recall that?

16 A Yes. Let's take a look at that patent
17 which is -- get the exhibit number. It is
18 Exhibit 2026.

19 (Exhibit 2026 marked for identification.)

20 Q Do you recognize this as your patent U.S.
21 6,766,202?

22 A I believe so.

1 Q Do you see your name as one of the
2 inventors on here?

3 A Yes.

4 Q Let's go to claim 1 which is on page 15 of
5 the PDF?

6 A And can I -- can I have access to the file
7 itself? Because it's much easier to read from on
8 the -- file because this is -- the image is not
9 clear. Is there a way to -- or can we print out a
10 copy so I can look at it?

11 Q It -- we can drop it into the chat and you
12 can load it up on your own screen.

13 A Yeah. Yeah. I don't know how to use the
14 chat from here. How does it work? Is it --

15 Q There's -- down the bottom of your screen,
16 you'll see a little icon for Chat in the Zoom.
17 And if you click on that it will open up a window
18 on the -- a panel on the right.

19 A Yes. There it is, yeah. Show chat
20 previews. Okay. Oh, I see yeah. Okay. Here.
21 That message.

22 Q I'd ask if the technician could kindly

1 drop the exhibit into the chat.

2 A Okay. Yeah.

3 Q And to do that going forward for the other
4 exhibits.

5 A Yes. Because it's much easier to --
6 because image is -- you know, and then I
7 can -- thank you so much. Yes. And then I can
8 open it here.

9 Q Sure.

10 A Save it. Okay. And it's in documents.
11 Let me see where it is. Hopefully it will be
12 simpler once I've done the first one here. This
13 is exhibit -- okay. Yes. I see that. Let me put
14 it on the other screen here so I can still see
15 you. And close that.

16 Q Just let me know when you're ready, Dr.
17 Woloszko.

18 A Yeah. I'm ready.

19 Q Okay. So let's go to claim 1 which is on
20 page 15 of the PDF in column 12 starting at line
21 34.

22 A Yes.

1 Q Claim 1 of your patent recites a method of
2 treating wrinkles in a patient's skin, right?

3 A Correct.

4 Q And if we go down to line 45 in claim 1,
5 your patent recites that that method is performed
6 without ablating the epidermis layer overlying the
7 target tissue, right?

8 A Yes.

9 Q I'd like to go to column 7 of the patent,
10 starting in line 34.

11 A Uh-huh, yes.

12 Q For the technician, it will be the
13 opposite direction. Go to column 7. It will be
14 on the left-hand side with a 7 at the top.

15 A Yeah.

16 Q Great. And line 34, do you see in the
17 sentence there, it refers to -- at the end of the
18 sentence in lines 36 to 37, volumetric removal
19 (ablation) of tissue?

20 A Yes.

21 Q So this is referring to ablation as
22 removal of tissue, correct?

1 A Uh-huh, yes. Correct. Sorry.

2 Q And now, I'd like to go back to your
3 substitute declaration, Exhibit 1037.

4 A Uh-huh.

5 Q And if we go to paragraph 22 on page 7,
6 we'll drop this in the chat, too, so you can feel
7 free to --

8 A Yeah.

9 Q -- download it if that's easier. I'm
10 sorry, it's -- when I said page 7, I mean page 7
11 in the middle of the bottom, paragraph 22.
12 Perfect.

13 Dr. Woloszko, in your substitute
14 declaration, you adopted as your own in full
15 paragraphs 17 to 268 of Dr. Berube's declaration,
16 Exhibit 1003, right?

17 A Yes.

18 Q So you fully agree with everything in
19 those paragraphs, correct?

20 A I do.

21 Q So I'd like to go back to paragraph 19
22 which is on page 6, the page number at the bottom.

1 In deciding to adopt paragraphs 17 through
2 268 of Dr. Berube's declaration, you read and
3 considered the '836 patent and its prosecution
4 history, the exhibits listed in the exhibit list
5 filed with the petition for inter partes review of
6 the '836 patent, as well as the other materials
7 referenced in paragraphs 1 through 271 of
8 Dr. Berube's declaration, correct?

9 A That is correct.

10 Q That's the complete list of materials you
11 read and considered in adopting paragraphs 17
12 through 268 of Dr. Berube's declaration as your
13 own, right?

14 A Exhibits listed -- for this report, these
15 are the -- the exhibits that have been considered.
16 Right.

17 Q Did you speak with Dr. Berube about his
18 declaration?

19 A I have not.

20 Q Let's now go to the paragraphs of
21 Dr. Berube's declaration that you adopted. That's
22 Exhibit 1003, and we'll drop that in the chat too.

1 A Okay. I have a print-out version here.

2 Q Okay.

3 A It's -- it is easier, but yeah.

4 Q Okay. Are there any markings on the
5 print-out version you have?

6 A No. The only thing we put here, you can
7 see it's -- those are those tabs so I know which
8 one they are. Plus the -- you know, things that
9 they are -- this is the exhibits as well as the
10 report.

11 Q Okay. Very good. Feel free to refer to
12 whatever is more convenient for you.

13 A Okay. Yeah. This is -- this is fine.
14 Yeah, but...

15 (Exhibit 1003 marked for identification.)

16 Q I'd like to direct you to the section that
17 starts at paragraph 17.

18 A Yes. Page 10.

19 Q Perfect. In paragraphs 17 through 22,
20 those paragraphs state the understandings of the
21 law that you applied in adopting paragraphs 23
22 through 268 of Dr. Berube's declaration, right?

1 A That's correct.

2 Q Paragraph 18 states the understanding of
3 the law that you applied for anticipation,
4 correct?

5 A That's correct.

6 Q And paragraphs 19 through 22 state the
7 understandings of the law that you applied for
8 obviousness, right?

9 A That's correct.

10 Q Paragraph 20 lists out factors that one
11 should consider in determining whether a claim is
12 obvious, right?

13 A Yes.

14 Q And the factors that are listed in the
15 bullets there are the level of ordinary skill in
16 the art at the time the application was filed, the
17 scope and content of the prior art, and what
18 differences, if any, existed between the claimed
19 invention and the prior art, correct?

20 A Correct.

21 Q In paragraphs 19 through 22, there is no
22 reference to objective indicia of nonobviousness

1 or secondary considerations of nonobviousness,
2 right?

3 A Yes. That's correct.

4 Q In paragraphs 19 through 22, there is no
5 reference to commercial success, long-felt but
6 unresolved needs or failure of others, correct?

7 A That's correct.

8 Q And there's nowhere else in the paragraphs
9 of Dr. Berube's declaration you adopted that
10 address objective indicia of nonobviousness or
11 secondary considerations of nonobviousness such as
12 commercial success, long-felt but unresolved
13 needs, or failure of others, right?

14 A That is correct.

15 Q And do you recall that in the ITC
16 investigation you did not address secondary
17 conversations of nonobviousness in your expert
18 reports, right?

19 A That is correct.

20 Q And you attended the evidentiary hearing
21 in the ITC investigation, right?

22 A I did.

1 Q You -- did you see Dr. Na?

2 A I saw him.

3 Q Did you see Dr. Van Der Weide?

4 A I -- yes, I did.

5 Q And you saw that at the evidentiary
6 hearing in the ITC, Serendia presented evidence of
7 secondary conversations such as commercial
8 success, long-felt but unsolved needs, and failure
9 of others, right?

10 MR. MUELLER: Objection to form.

11 A I -- I -- I saw that.

12 Q Let's now move on to the technology
13 background which is the next section of
14 Dr. Berube's declaration that you adopted.

15 A Uh-huh.

16 Q I want to focus on paragraph 24.

17 A Yes.

18 Q In the first sentence of paragraph 24, it
19 states: Before the priority date of the '836
20 patent, it was well-known to use microneedles
21 alone for skin treatment, right?

22 A Correct.

1 Q And then in the first sentence of the next
2 paragraph, paragraph 25, it states: For
3 additional impact, it was also well known to power
4 such microneedles with a radio frequency (RF)
5 energy source, correct?

6 A That's correct. Yes.

7 Q And after that sentence in paragraph 25,
8 it goes on to cite Exhibit 1007, 1010, as well as
9 the '836 patent as support for that understanding,
10 correct?

11 A Support, yeah. '836 confirms, yes,
12 confirmation or support. Yes. That's -- yes.

13 Q Now, before the '836 patent, patents
14 referred to using different types of power
15 sources, including DC, AC, and RF, right?

16 A No.

17 Q Let's take a look at Exhibit 1014.

18 A I don't have it with me.

19 (Exhibit 1014 marked for identification.)

20 A Which one is 14?

21 Q It's the Manstein reference which I
22 believe you're familiar with.

1 A Yes. Can you put it in the -- can you put
2 it in the --

3 REMOTE VIDEOGRAPHER: It's in the chat.

4 THE WITNESS: Okay. Sorry, I -- I didn't
5 check the chat room. Give me a second. Oh,
6 you -- you very -- thank you so much. Save and
7 then -- open it. Give me few seconds and I'll
8 open it. It is -- it's pretty fast. Okay.

9 Q I'd like to direct your attention to
10 paragraph 32 of Manstein.

11 A Yes.

12 Q Do you see in the first sentence of
13 paragraph 32 of Manstein refers to using an RF
14 device in one exemplary embodiment?

15 A Yes.

16 Q In the second sentence of paragraph 32 of
17 Manstein, it refers to in another embodiment using
18 an energy source that is capable of outputting AC
19 or DC electric current, right?

20 A That's -- that's correct. That's what the
21 text says. Yes.

22 Q So you understand that Manstein refers to

1 using RF in one embodiment and in another
2 embodiment using an energy source capable of
3 outputting AC or DC electric current, correct?

4 MR. MUELLER: Objection to form.

5 A This -- this is the way it is written.
6 This is not my understanding. This is -- this is
7 what this -- this is way it's written here and I
8 would say the -- the language is a little
9 confusing, but when you read the rest of the
10 patent, you understand better what it means.

11 Q Why do you find the language confusing?

12 A Because AC or DC, if you go later on, the
13 same system he describes is also used to provide
14 nerve detection. I think this is written in
15 paragraph 49 on page -- page 5. And it's
16 mentioned a few other places.

17 And to do nerve detection, they do what's
18 called stimulation. Those are single-pulse
19 stimulations. And I've used a stimulator. And
20 although it is usually not recommended for nerve
21 stimulation, when you do single pulses, the
22 negative effect are minimum. So many of those

1 stimulation provided an AC pulse. Most -- the
2 good generator have a capacitor to balance the
3 charge so you don't do any nerve damage, don't do
4 any electrode polarization.

5 But this is for few pulses. It's very
6 little damage. If you want to do chronic
7 stimulation, this is very negative effects. Been
8 described in nerve fatigue and so on.

9 But the AC part of the system and -- is
10 used and this is the understanding of anybody
11 skilled in the art would only be used for the
12 nerve detection to make sure that the device is
13 inserted away from a nerve to -- and inserted in a
14 proper location.

15 And it is understood by a person skilled
16 in the art that the signal used to heat tissue has
17 no DC component.

18 Q Let's go back to Exhibit 1003. And go
19 forward to paragraph 27 in the background section.

20 A Yes.

21 Q And they -- the first sentence states:
22 Before filing of the '836 patents, Hruza, et al.

1 conducted a study on in vivo human skin using an
2 RF device consisting of, quote, parallel rows of
3 bipolar arranged electrode pins forming an array
4 of positively and negatively charged electrodes
5 for multiple delivery of 1 megahertz of RF energy,
6 close quote.

7 Do you see that?

8 A Yes.

9 Q Now, turning to the next page where
10 paragraph 27 continues, do you see three lines
11 down there's a sentence that starts, The RF
12 device?

13 A Yes.

14 Q That sentence states: The RF device used
15 for this study was, quote, tuneable in the sense
16 that the relative proportion of
17 ablation/coagulation/necrosis...and the extent of
18 the surrounding coagulated tissue may be
19 controlled, end quote.

20 A Yes.

21 Q Do you see that?

22 A I see that.

1 Q Do you understand what text was removed
2 from the statement in favor of the ellipses, the
3 dot dot dot?

4 A I don't know by heart. I would have to go
5 to the document itself to -- I looked at it,
6 obviously, when I reviewed this report several
7 months ago. I don't -- if you want to show me
8 what was removed, I can be happy to look at it,
9 but I don't know by heart.

10 Q We'll take a look in just a moment.

11 A Yes.

12 Q Do you know why that dot dot dot was
13 inserted?

14 A I'm not sure.

15 Q Do you know whether it was inserted by
16 Dr. Berube or the lawyers for Jeisys?

17 MR. MUELLER: Objection.

18 A I did not write this report, as you know.
19 I fully endorsed it, but I don't -- I don't know
20 who wrote what obviously. So I cannot answer your
21 question.

22 Q Let's take a look at the Hruza reference,

1 Exhibit 1031 at page 263 that is cited after the
2 sentence we just read.

3 (Exhibit 1031 marked for identification.)

4 A Okay. Let's see, is it in the chat room
5 as well now? Okay.

6 Q It is.

7 A It's 131, yeah.

8 Q 1031, yes.

9 A Yes. Sorry, 1031.

10 Q I'd like to focus on --

11 A Hold on. It doesn't show it.

12 Q Let me know when you're ready.

13 A I'm sorry.

14 Q No worries.

15 A Here it is. Yeah. Okay. Okay. I have
16 it open.

17 And tell me where -- where you want to go.
18 This is 263, yeah.

19 Q Correct. Page 263. So this is 263 at the
20 top. Yeah. And specifically, the section that's
21 labeled Discussion in the right column.

22 A Yes. Uh-huh.

1 Q Do you see there's a sentence that starts
2 three lines down, The device is tuneable?

3 A Yes.

4 Q You recognize that as the sentence that
5 was quoted in paragraph --

6 A Yes.

7 Q Sorry. That was quoted in Dr. Berube's
8 declaration?

9 A Yeah. Yeah. My apologies, I was
10 probably -- yes. I see -- I see where the
11 sentence is. My apologies to talk over -- over
12 you. Yes.

13 Q No problem. And do you see the text that
14 was removed by the ellipses in Dr. Berube's
15 declaration that comes after the word "necrosis"
16 was "as well as the depth of the ablated zones"?

17 A Yes.

18 Q And if we go back in Exhibit 1031, the
19 Hruza, et al., reference to the introduction on
20 page 260 --

21 A Uh-huh.

22 Q Sorry, I got the wrong page. It's at the

1 top of 259 is the introduction. Yeah, there we
2 go, on the left-hand column.

3 A Yes.

4 Q My apologies. I'm in the wrong cite. Let
5 me get the right one. It's actually in the
6 continuation of the introduction on the next page,
7 left-hand column. Yes.

8 Do you see the section there that starts,
9 We hypothesized?

10 A Yes.

11 Q And then four lines down, there's a
12 reference to the matrix RF.

13 Do you see that?

14 A Yes.

15 Q In fact, what Hruza, et al., is about, is
16 a matrix RF applicator that was capable of
17 delivering ablative tuneable RF energy, right?

18 MR. MUELLER: Objection to form.

19 A I see the text here.

20 Q Just for clarity, when you say "see the
21 text here," you see the matrix RF is described as
22 delivering ablative tuneable RF energy, right?

1 A Yes.

2 Q And in the next sentence, it states: This
3 results in heating of areas which are directly
4 targeted by the electrode pins to temperatures
5 leading to ablation and resurfacing of the skin,
6 right?

7 A That's correct.

8 Q You understand that this matrix RF device
9 was designed to cause ablation of tissue, right?

10 A As you probably remember in my ITC short
11 800-and-something-page report, I have a section
12 where I describe the very misleading term of RF
13 ablation. Unfortunately, for reason I ignore,
14 people have decided to call RF ablation,
15 coagulation necrosis.

16 And this -- and my belief is this started
17 when people were doing cardiac -- using this RF to
18 treat cardiac arrhythmia and they wanted to remove
19 abnormal cells in the heart in the myocardium to
20 stop them to provide abnormal signal, but you
21 don't want obviously to make a hole in the heart
22 because it's kind of unhealthy to have a big hole

1 in your heart.

2 So the treatment was to generate enough
3 heat to functionally remove -- to remove the
4 function of those cells. So RF ablation has been
5 used since and this is, I think, '70s or even
6 before, to describe functional removal of tissue
7 without always removing -- removing the tissue
8 itself.

9 So and if you look at the FDA guidance
10 document, they follow the same thing. They --
11 they say RF ablation is synonymous with
12 coagulation necrosis. And this is why, as you
13 remember, you mention my patent where I said
14 volumetric removal as removing volume of tissue,
15 bracket, ablation. This is my -- the way I used
16 to use ablation, but now it has become very
17 ubiquitous term.

18 And when I read ablation using RF, I never
19 know whether they relate to RF ablation as a
20 coagulation necrosis, or if it is an actual
21 removal as you know the technology I played a big
22 role in developing called coblation is a way to

1 volumetrically remove tissue without generating
2 any heat or very low heat, about 40-degree Celsius
3 with almost no coagulation or very little
4 coagulation to remove tissue through a chemical
5 process.

6 So there are many ways to ablate between,
7 quote, tissue and if it's not explicitly
8 explained, I am unable most of the time unless you
9 spend time reading through document to understand
10 whether people refer to RF ablation or to what's
11 now people skilled in the art, we -- we separate
12 ablation from resection or cutting.

13 And so the term ablation is really -- and
14 RF system, they have two pedals. They have a blue
15 and a yellow. The blue is called coagulation and
16 the yellow is called cutting, sometimes ablation
17 but cutting.

18 And the system called when called -- sold
19 by RF ablation, they have a blue pedal because
20 it's coagulation.

21 So I see that I am not sure as I haven't
22 looked properly at the histology here to know what

1 exactly the author means by ablation.

2 Q Looking at the histology would inform what
3 the author means by ablation here, right?

4 A Yes.

5 Q Let's do that. Let's take a look at
6 Figure 1 on page 261.

7 A Yeah.

8 Q Figure 1 shows histology of skin biopsies
9 after delivering the RF energy using this
10 aesthetic device, right?

11 A Uh-huh.

12 Q And it states in the caption for Figure 1:
13 Histology of skin biopsies demonstrating tuneable
14 ablation and coagulation/necrosis effects
15 immediately after fractional treatment, and it
16 continues, correct?

17 A That's what's written. Yeah.

18 Q If you look at the second sentence, states
19 that Figure 1 includes crater-shaped zones
20 ablation, correct?

21 A So in sentence two you said? Yeah.

22 Q Yes.

1 A Yes. Crater-shaped zone ablation, yes.
2 Coagulation and necrosis of sub necrotic skin
3 tissue apparent. Yeah. That's correct.

4 Q Those crater-shaped zones of ablation as
5 shown in Figure 1 are craters where tissue has
6 been removed, right?

7 A I don't know that. What I see is I see a
8 zone where the surface of the tissue is depressed.
9 And if you look at the middle, I mean, you can
10 hold the -- the middle figure, you can see that
11 all the layers except the dead stratum corneum
12 which is really dead cells so that don't really
13 matter, are there; they are just shrunk.

14 So I don't know if I'm not -- again, I'm
15 not a pathologist. I've seen many of those image
16 so I have some idea, but I'm not an expert in this
17 field. But I see that all layers of the skin are
18 there. They are compressed. And when you do
19 denaturation of -- of tissue and coagulation, the
20 first effect is a shrinkage.

21 So if you shrink tissue, you'll see such
22 early crater form. So I cannot for sure -- and I

1 read the text as you do. I am not sure -- for
2 sure that this is due to an actual volumetric
3 resection of tissue or this is the result of
4 tissue shrinking under the electrode that would
5 create that.

6 I would -- I would refer to an experienced
7 pathologist to read that and read the text as you
8 do. But my -- with my experience, only 30 years
9 in this field, I don't know for sure that this is
10 the actual resection, the volumetric removal and
11 not shrinking of tissue.

12 Q Can you see that there's a part C at the
13 end of the caption in Figure 1?

14 A Tissue ablation with total epidermal
15 removal.

16 Q The question was just do you see part C?

17 A Yeah.

18 Q I'll ask you about the text.

19 A Yes.

20 Q Do you see --

21 A Yes.

22 Q Part C refers to tissue ablation with

1 total epidermal removal, right?

2 A Yes. This is at 20 joule which is a
3 significant amount of energy. Yes. This shows
4 several -- as you can see, this shows several
5 level of energy. And it shows -- and on the
6 right, this is 20 joules. And basically on A and
7 B, you -- you don't have any resection of tissue.

8 And on C, I would agree that there is most
9 likely -- most likely, again, because the
10 epidermal layer seems to be gone at 20 joules,
11 yes.

12 Q That completes our work with this exhibit.

13 I would like to go to the expert report,
14 your opening expert report in the ITC
15 investigation. That's Exhibit 2004.

16 A Okay. Yeah. Download it. It's like a
17 huge --

18 (Exhibit 2004 marked for identification.)

19 MR. MUELLER: Counsel, I have his expert
20 report, I believe. It's a large notebook. It
21 does not have any writing on it. Can I hand that
22 to him?

1 MR. SANDERS: That would be fine.

2 MR. MUELLER: I believe that's what you're
3 talking about. I don't know that it's labeled
4 whatever number, 2004, but I believe it's the
5 expert report.

6 MR. SANDERS: That would be fine. You're
7 welcome to hand it to Dr. Woloszko and we can
8 confirm it's the same document.

9 THE WITNESS: Yeah. I will -- I can show
10 you the -- hold on.

11 REMOTE VIDEOGRAPHER: I also added it in
12 the chat.

13 THE WITNESS: Yeah. It's a long document
14 to download. So can you --

15 MR. SANDERS: Yeah. If we go -- yeah.
16 That --

17 THE WITNESS: You can see the size.
18 It's --

19 MR. SANDERS: Yes.

20 THE WITNESS: Okay. Yes.

21 Q And that may be the complete version, Dr.
22 Woloszko. I don't know if it has the redactions

1 that were prepared, but I'm only going to ask you
2 about what's in the public record.

3 A Sure.

4 Q And in the -- or in the record in the IPR,
5 I should say, as Exhibit 2004.

6 A Okay.

7 Q There -- I'd like to direct your attention
8 to page 59.

9 A This is actual page, the -- where the page
10 on the bottom of it? Yeah?

11 Q Correct.

12 A Yes. I'm page 59.

13 Q And do you see paragraph 105?

14 A Yes.

15 Q And in paragraph 105, you refer to RF
16 microneedling devices that were available from the
17 late 2000s to the early 2010s, right?

18 A That's correct.

19 Q Then you continue in the next paragraph,
20 paragraph 106. You explain that these devices
21 provide fractional damage to the dermis, right?

22 A Yes.

1 Q And you explain that this fractional
2 damage is unlike complete ablation of the
3 treatment area, right?

4 A Correct.

5 Q That's all we needed for Exhibit 2004.
6 You can put away, the big expert report.

7 We'll go back to Dr. Berube's declaration
8 where you adopted the paragraphs. And
9 specifically, that's Exhibit 1003, at page 20,
10 where the summary of the '836 patent starts.

11 A Yes.

12 Q I'd like to direct your attention to
13 paragraph 37 in that section.

14 A Okay.

15 Q Specifically, the second sentence. Do you
16 see it begins, The asserted claims?

17 A I see that.

18 Q And in that sentence, it states that the
19 asserted claims of the '836 patent generally
20 describe treating dermatological tissue with a
21 device having, among other things, electrodes
22 configured to cause coagulation, right?

1 A Yes.

2 Q And the '836 patent distinguishes
3 coagulation from other tissue effects,
4 carbonization and vaporization, that occur when
5 more energy is applied, right?

6 A This is what the author of this patent
7 describes. This not -- I -- I don't fully agree
8 with the description, but this is what is
9 described in this document. Yes.

10 Q The '836 patent states that its invention
11 improves skin condition by primarily using
12 coagulation as opposed to carbonization or
13 vaporization, right?

14 A Yes.

15 Q Now, when tissue is carbonized or
16 vaporized, that tissue is removed, correct?

17 A I am not sure what vaporization is exactly
18 means in this explanation because if you only
19 vaporize the water in the tissue, you don't remove
20 the tissue, we remove its water where the matrix
21 of tissue remains in the -- remains there but
22 shrunk because you remove the water so you --

1 obviously the volume is reduced, you shrink it.
2 This is the extent of coagulation. So
3 vaporization is a very vague word that's -- I
4 tried not to use too much, talk about it.

5 But the carbonization is the
6 effect -- it's one way to describe the effect
7 which is obtained by regular actual surgical
8 cutting or resection. Correct.

9 Q Just to confirm, carbonization involves
10 removal of tissue, right?

11 A Yes.

12 Q The '836 patent explain that the serious
13 side effect of some existing technologies at the
14 time was overheating or burning of both the dermis
15 and epidermis located between the needles which
16 may cause permanent skin damage or scars, right?

17 A That is correct. That is what is written.
18 Yes.

19 Q And the '836 patent was directed to
20 preventing or limiting such overheating, right?

21 A Correct.

22 Q And is it correct that you consider the

1 '836 patent to be directed to a fractional RF
2 treatment device like those you described in
3 paragraph 105 of your report we looked at a few
4 moments ago?

5 MR. MUELLER: Objection to form.

6 A The device that we see patent describe
7 one -- one example of fractional device that makes
8 a lesion and leaves empty tissue is one of damage
9 issue and healthy tissue, correct.

10 Q Now, in adopting Dr. Berube's declaration,
11 did you review Dr. Berube's testimony about the
12 '836 patent?

13 A I -- I listened to his testimony during
14 trial and I didn't read all his testimony when
15 reviewing that because I think I remember most of
16 it.

17 Q Do you recall at the trial, Dr. Berube
18 testified that the '836 patent does not involve
19 ablation?

20 MR. MUELLER: Objection to form.

21 A I -- if you want to show me where he said
22 that, it's possible. But if you want to show me

1 on the transcript where he said that, I -- I may
2 agree. I cannot like that agree. I -- you know,
3 as I say, I remember most of what he said, but I
4 don't verbatim. So if you show me the transcript,
5 I'd be happy to.

6 Q Sure. Happy to do that. That's
7 Exhibit 2033.

8 (Exhibit 2033 marked for identification.)

9 A So I need to -- need to go to --

10 Q You may have to download it.

11 A It's in the chat room. You have it here.
12 This is very small. So I need to download it.
13 2033.

14 Q Let me know when you're ready and I'll
15 tell you --

16 A I have it. Yes.

17 Q Okay. Let's take a look at -- it starts
18 at the bottom of page 3 of the PDF. It's
19 page 1268 of the hearing transcript, starting at
20 line 24.

21 A Yes. The patent, the '836 patent
22 investigation does not involve ablation. Correct.

1 This is your question. And the answer is on the
2 next page. Yes.

3 Q Am I correct that you agree with
4 Dr. Berube that the '836 patent does not involve
5 ablation?

6 MR. MUELLER: Objection to form.

7 A This -- you know, to the caveat of what I
8 mentioned before is definition of ablation. So it
9 does not involve volumetric removal of tissue. It
10 does involve RF ablation as accepted as a common
11 language. But it does -- so it is an RF ablation
12 device in my -- in my view, but it does not
13 volumetrically -- it doesn't basically resect
14 tissue.

15 I have a small request. I just drank a
16 lot of water. If I can have a very short break.
17 I need to relieve myself.

18 MR. SANDERS: Sure.

19 THE WITNESS: Thank you.

20 MR. SANDERS: Let's go off the record.

21 (Whereupon a break was had.)

22 BY MR. SANDERS:

1 Q Dr. Woloszko, I wasn't clear on your
2 position on Mr. Berube's testimony so let me just
3 ask: In your view, does the '836 patent involve
4 ablation?

5 A As I said, I think I repeat what I said,
6 it -- in my personal view it does, because I
7 define ablation as RF ablation as coagulation,
8 coagulation necrosis. But in the term of if -- if
9 we define ablation as resection of tissue, it does
10 not involve tissue resection.

11 Q All right. And I just want to make sure
12 we're getting the right word in the transcript.
13 Are you -- did you just use the word redaction,
14 R-E-D-A-C-T-I-O-N, or was it a different word?

15 A No. Resection, with an S,
16 R-E-S-E-C-T-I-O-N.

17 Q Thank you. Now, we're done with
18 Dr. Berube's testimony.

19 In your view, what is described in the
20 specification of the '836 are monopolar needles
21 arranged in a bipolar configuration, right?

22 MR. MUELLER: Objection to form.

1 A This is the way I describe it in my report
2 as I explain, it's a bipolar needle is a needle
3 that has both electrodes, both polarities of the
4 same electrode. So to explain it in a -- in a way
5 that explain other is monopolar needle arranged in
6 a bipolar fashion, yes. The device is bipolar.
7 The needle is -- each needle is monopolar itself.

8 Q Now, let's now turn to the Ganz reference,
9 which is Exhibit 1005.

10 (Exhibit 1005 marked for identification.)

11 A Yes. I have a printed copy of it.

12 Q Okay. Ganz states that its devices
13 make -- excuse me, let me start again.

14 Ganz states that devices that make
15 preparations mechanically rather than with the use
16 of energy may result in undue bleeding, right?

17 A Yes.

18 Q Ganz states that there is a need for a
19 device that creates perforations without causing
20 undue bleeding, right?

21 A Yes.

22 Q Ganz states that one drawback of prior art

1 such as the Fraxel laser is that those devices do
2 not create perforations or vertical holes in the
3 tissue, but only cause zones of coagulations,
4 right?

5 A That's what he writes. Correct.

6 Q Ganz states that he discovered that it is
7 desirable to create vertical perforations or
8 ablation holes in tissue as that prompts an even
9 more aggressive wound healing response, right?

10 A I think -- I mean I believe it's correct.
11 Can you tell me in what section he -- this text?
12 I know --

13 Q Sure. Why don't we take a look at
14 paragraph 6 in Ganz. It's actually in the part of
15 the paragraph that's in the right-hand column.

16 A Yes.

17 Q It's about seven lines down.

18 A Yes.

19 Q Ganz states that he discovered that it is
20 desirable to create vertical perforations for
21 ablation holes in tissue as this prompts an even
22 more aggressive wound-healing response than is

1 currently seen, right?

2 A That is what he writes. Correct.

3 Q And Ganz is using the term perforations
4 and ablation holes interchangeably, right?

5 A The hole, is it hole to decide what
6 perforation means or is it hole as in exclusive
7 one or the other?

8 Q We can resolve that. Go down to
9 paragraph 27.

10 A Okay.

11 Q Do you see that in paragraph 27, this is
12 five lines down, Ganz states: These perforations
13 create holes which extend vertically into the
14 tissue and across one or more layers?

15 A I -- I see that. Yes.

16 Q And at the bottom of the paragraph, Ganz
17 states as used herein, the term, quote,
18 perforation, close quote means vertical areas of
19 thermal damage or ablation to the tissue causing
20 tissue necrosis?

21 A Yes. This is not removal. Yes. I see
22 that. And necrosis does not mean -- necrosis, as

1 you know in this term, is what FDA called
2 coagulation necrosis, which does not involve
3 any -- any physical removal of tissue. This is
4 the -- this is the definition of coagulation
5 necrosis, of tissue -- of ablation is RF ablation.
6 Again, this is a very confusing terminology and
7 unfortunately terminology.

8 So I don't see the term ablation hole. It
9 talks about perforation for the holes. As you
10 know, when you put a needle in tissue for the
11 perforation, you don't remove any tissue. You
12 expect the needle to be sharp and to separate the
13 fibers and we see the hole without tissue being
14 removed.

15 So ablation hole, I don't know if it's you
16 remove tissue or if it's you -- you make a hole
17 and then you do RF ablation and the tissue shrinks
18 around it and that makes the -- you know, and
19 because it shrinks when you remove the needle it
20 doesn't elastically -- when you apply heat, what
21 is not described in those papers, is you damage the
22 elastin fibers and those don't grow back. And

1 then the tissue does not elastically close to, you
2 know, to close the hole.

3 And this is -- this is unfortunately not
4 described anywhere. Like, people seem to ignore
5 that. I have experience with that and I can tell
6 you that when you just do coagulation and tissue
7 around the electrode, the tissue with shrink and
8 make the hole larger without resection of tissue.

9 Q I want to make sure I understand your
10 position. Is it your position that the
11 perforations in Ganz are different from ablation
12 holes?

13 A It depends in the text. But it's not
14 clear. It doesn't mention -- he -- he mentions
15 both. He mention vertical perforation. He
16 mentions -- he mentions perforation creates holds.
17 He mentioned ablation holes. So there are a long
18 of languages.

19 But basically, there is nowhere in the
20 text where he mention the tissue is actually being
21 removed, nowhere. I mean, so I wouldn't say
22 nowhere, but I don't think it's clearly explained

1 whether tissue is where he intend to resect
2 tissue.

3 Q Are you unable to tell from Ganz whether
4 the perforations are ablation holes?

5 MR. MUELLER: Objection, form.

6 A Again, the ablation holes, as I -- as I
7 mention are the ablation used as the RF ablation
8 meaning or the RF resection meaning. This is not
9 clear. He doesn't define that.

10 Q You believe the perforations in Ganz are
11 ablation holes?

12 A I -- I don't know what ablation holes
13 means really, so I -- I -- I believe he's creating
14 a -- so it's possible that the -- that some tissue
15 is removed. The histology -- the histology images
16 on the patent are very poor quality because it's
17 where the patent are issued. It is possible.
18 I -- I cannot say for sure what it's one way or
19 the other.

20 Q I just want to make sure I'm clear. You
21 believe it's possible that the perforations in
22 Ganz involve removal of tissue; is that correct?

1 A It is possible. It's not clearly
2 mentioned.

3 Q Is it correct that you're unable to tell
4 from Ganz's disclosure whether the perforations
5 that he describes involve removal of tissue?

6 MR. MUELLER: Objection to form.

7 A I -- yes.

8 Q So let's take a look at paragraph 57 of
9 the Berube declaration, which is Exhibit 1003.

10 A 57, yes.

11 Q Do you see it's about seven lines down in
12 the paragraph there's a sentence that begins, Ganz
13 discloses that zones?

14 A Yes. I see that.

15 Q And the sentence in that paragraph states:
16 Ganz discloses that zones of coagulation, quote,
17 extend into the tissue in all directions
18 originating from the perforation site, close
19 quote.

20 Right?

21 A Correct. Yes.

22 Q So the coagulation disclosed in Ganz

1 begins at the edge of the perforation that was
2 created during treatment, right?

3 A That's how we -- he measures that here.
4 Correct. Yes.

5 I'd like to add a comment. So as -- as I
6 think Dr. Berube explains, I mean, I -- you know,
7 and I would explain here when -- you know, and if
8 we agree when -- and I have also discussed this in
9 my ITC report, if you put a needle in tissue and
10 you only create coagulation, coagulation will
11 create tissue shrinkage. So the tissue will
12 retract basically and the fibers get shorter.

13 Therefore, that with tissue removal, the
14 holes get a bit larger because tissue will shrink
15 around the -- sorry, around the needle and then
16 keep -- make the hole bigger because there is --
17 when the tissue shrinks, it gets shorter and,
18 therefore, there is less -- there is less -- there
19 is -- there is a slightly larger hole in it.

20 Those hole are extremely small. There in
21 order -- there in order -- he mentioned about 100
22 micron which is less than a hair. So it -- they

1 are not visible at the human -- to the normal
2 human eye. But this is so -- this is why he
3 measures.

4 And it's an interesting question because
5 something I dealt with very often when you measure
6 zone of coagulation. FDA requires this kind of
7 treatment. Is it from the -- you can see the
8 tissue shrinks, so you see a little dip in tissue.
9 And you measure from the edge of the surface or
10 from the edge of the surface before you treat
11 tissue because it shrinks. It gets smaller. And
12 this can be sometime can consequent. Can be 30,
13 40 percent of tissue reduction size.

14 So this is a conundrum that everybody sees
15 it differently. And people measure from the
16 original surface and people measure from -- so
17 Ganz here measures the -- the coagulation zone as
18 the resulting from basically the edge of the
19 perforation, but the edge of tissue to the zone of
20 non coagulated tissue. But we don't know if this
21 tissue was further inside the hole before it
22 shrank. And this is why you measure like that.

1 So this is -- this is -- this is one of
2 those scientific conundrum which is usually not a
3 big issue. It has -- it has become an interesting
4 question.

5 And people like to use the smaller
6 distance when I talk to -- when they do the report
7 to FDA because it shows smaller zone of damage.
8 But in some case, you want bigger damage and then
9 you measure differently. So everybody is going to
10 measure this the way they work in their advantage.
11 But here is measuring from the edge. That's
12 correct.

13 Q Just -- just to make sure I'm clear, Ganz
14 describes that the zones of coagulation extend
15 from the edge of the perforation, right?

16 A Yes.

17 Q Ganz discloses a plurality of electrodes
18 extending outwardly from the treating surface and
19 adapted from parting simultaneous perforations in
20 one or more tissue layers, right?

21 A Yes. You can -- this, again, I remember
22 that. If you can just let me know which paragraph

1 in Ganz. I mean, it's -- I'm pretty sure I agree
2 with the term. In order to make sure that's word
3 for word what is correct, can you let me know
4 which paragraph in Ganz it says that?

5 Q It's actually in Dr. Berube's
6 declaration --

7 A Okay. Yes.

8 Q -- at paragraph 106.

9 A Yes. Correct.

10 Q And now let's return to Ganz itself. And
11 I'd like to focus on Figure 1 of Ganz. That's
12 Exhibit 1005.

13 A Okay.

14 Q Ganz Figure 1 shows electrode pins 25,
15 right?

16 A Yes. Call them -- let me see how he calls
17 them again. Figure 1, he called them something
18 else, but this is what we would call electrodes.
19 He called them electrode pins. But that's
20 correct, yes.

21 Q The electrode pins 25 create perforations
22 as well as zones of coagulation surrounding the

1 perforations, right?

2 A That is correct.

3 Q Ganz states that its device imparts
4 perforations into the skin rather than merely
5 imparting coagulations into the skin, right?

6 A Yes. And as you know, he compares with
7 the laser. As a laser go through the skin,
8 the -- although it looks similar or when -- when
9 you have the electrode in, the tissue shrinks from
10 the electrode towards, you know, the outside a bit
11 and both ways. Whereas when you don't have an
12 actual, let's call it, mechanical perforation,
13 tissue cannot shrink from the center because it's
14 still bound together. So we only shrink
15 concentrically.

16 When you have a needle, you have eccentric
17 and concentric shrinkage. When you don't have a
18 hole in the middle and the hole is mechanical hole
19 without removing tissue, the tissue can only
20 shrink concentrically. So the physically effect
21 of the shrinkage is slightly different because of
22 this mechanical perforation. Yes.

1 Q Now, let's take a look at paragraphs 47
2 and 48 of Ganz.

3 A Okay.

4 Q In those paragraphs, Ganz describes
5 creating perforations of certain sizes and zones
6 of coagulation surrounding those perforations
7 having certain sizes, right?

8 A Correct.

9 Q In those paragraphs, there is no
10 disclosure of the width of the electrode that is
11 used to create those perforations, right?

12 A In the paragraph 47 and -- you say 47, 48
13 you mentioning here; am I correct?

14 Q Correct.

15 A Not in those paragraphs, yes. But there
16 is reference to electrode size in other
17 paragraphs.

18 Q Is there somewhere else in Ganz that Ganz
19 discloses the width of the electrodes?

20 A Yes. Indirectly, he -- and I have to look
21 for the paragraph. But he says the perforations
22 are at least as big as the electrode and can be

1 larger. So indirectly, he mentioned a
2 relationship between the perforation diameter and
3 the electrode diameter. So you could assume that
4 basically electrode could be maybe, you know --
5 and I mean it doesn't give the limit because the
6 perforation could be larger, but it gives -- it
7 gives you, I would say, a minimum size of
8 electrode. And the maximum, you know --
9 and -- and it leaves a bit more open for the
10 maximum size diameter of electrodes, but it gives
11 you a range though.

12 Q I believe you're referring to paragraph 53
13 in Ganz?

14 A 53 says the width or diameter of each
15 electrode pin can be varied to provide perforation
16 a desired width -- width in this case with
17 diameter. And it says later on, the width of the
18 perforation created will be at least the width of
19 electrodes, and in many cases, larger. The width
20 of the perforation created depends not only on the
21 width of the electrode, but also on the level of
22 energy discharged from the electrode. When more

1 energy is discharged from the electrode, the
2 larger perforation width and depth is created.
3 Additionally, the width of the perforation can be
4 tapered with depth. Yes.

5 Q And in paragraph 48, Ganz refers to, in
6 the first sentence, zones of coagulation are also
7 created in the areas of tissue surrounding each
8 perforation, correct?

9 A That's correct. Yes.

10 Q Ganz does not state what level of energy
11 is required to obtain coagulation around the
12 perforation, correct?

13 MR. MUELLER: Objection, form.

14 A He mentions -- actually, he's very smart
15 about it because the total energy is really
16 depending on the size of the electrodes. So
17 he -- he shows that he understand the technology
18 by mentioning energy -- both power and energy
19 density in terms of joule or watt per square
20 centimeter. So this is the way it should be
21 defined.

22 Obviously, the more electrode you have,

1 the more energy you deliver. So this is
2 in -- this is in -- where does he mention that? I
3 was looking at it a while ago. Give me a second.
4 I will find that. And I think he defines -- but
5 where is this again? I know I looked at it
6 yesterday.

7 So you have your notes on your documents
8 so you know what to look for and I have no
9 documents so it takes longer to find.

10 Q Why don't we take a look at paragraph 57.
11 In paragraph 57, Ganz discloses that the energy --

12 A Oh, yes.

13 Q -- can deliver a variety of different
14 types of energy, right?

15 A Yes.

16 Q And those energy types are -- include but
17 are not limited to RF energy, right?

18 A Yeah. And then he defines later on 50 to
19 200 watts per square centimeter. And then -- but
20 one joule per square centimeter. That's what it
21 is. Thank you. So he does define the power and
22 the energy required.

1 My phone is on. I apologize for that.

2 Q And the amount of energy that is applied
3 to the tissue will depend on how long the
4 electrodes remain in the tissue, right?

5 A Sorry, can you -- how long the electrode
6 remains?

7 Q In the tissue.

8 A No. Absolutely not. Amount of energy
9 revert basically when you have a power setting,
10 when you have a power -- for instance, if you have
11 50 watts and you want to -- let's say if you have
12 20 watts and you wanted 1 joule, energy will be
13 applied to only 50 milliseconds because you define
14 energy as watt. So the energy is predetermined
15 here. You set the energy and the power and then
16 the time automatically stops using this -- what he
17 describes. So he describes both energy, power,
18 and time basically as it's law of physics. The
19 power -- the energy is the integral of power over
20 time.

21 In simpler terms, you know, if you assume
22 the power being constant, it's a power times time

1 equal energy. It's constant with the integral,
2 but let's not go into the complex math here.

3 Q Now, the Ganz provides a lower bound on
4 the minimum amount of energy to apply, correct?

5 A He does not -- he does get an order of
6 magnitude. There is low upper bound, but one
7 joule per square centimeter, so it's not lower.
8 It's -- it's basically -- it gives -- it gives a
9 number and it's plus or minus whatever you want.
10 It gives you an order of magnitude. I won't say
11 lower or upper bound. It gives one number.

12 Q How --

13 A I mean, you can vary around this value by
14 whatever -- whatever number, you know, you -- you
15 see fit.

16 Q I just want to make sure I understand your
17 testimony clearly. In the last sentence of
18 paragraph 57 of Ganz it states --

19 A Oh, yes. I retract what I said.

20 Q Okay. So --

21 A Yeah. I forgot "at least". Yes. That's
22 a low bound, yes. My apologies.

1 Q Ganz does not describe an upper bound or a
2 range for the total amount of energy, correct?

3 A That is correct.

4 Q The amount of energy delivered to the
5 tissue will affect what happens to the tissue as a
6 result of that energy application, right?

7 A To some extent. What -- what happens is I
8 know we -- we going in the weeds, but what happens
9 really is the tissue impedance, basically the
10 resistance to passing of energy, increases as you
11 increase the zone of coagulation. And therefore,
12 after some time, there is no more effect.

13 So usually, you find out that the minimum
14 is important. The maximum doesn't always matter
15 because after some time you get to the asymptotic
16 type of effect and it doesn't -- you don't -- you
17 don't see more effect. Unless you create very
18 high -- even if you were in the resection mode, at
19 the beginning you see tissue being resected and
20 then if you don't -- if the electrode is not
21 moving, there is nothing to resect anymore and
22 nothing happens, although you have energy.

1 So the lower bound is the most important.
2 The upper bound is much less predictable.

3 Q If energy is delivered such that the
4 tissue around the electrode is removed, at some
5 point you don't have tissue around the electrode
6 that's being -- having energy that's delivered
7 directly to it, right?

8 MR. MUELLER: Objection to form.

9 A Tissue being removed or even shrank around
10 it because you create a gap, you know, as we
11 talked about the gapping. And what happens is
12 you often have fluid from the tissue going there
13 so the energy goes into the fluid. The extra
14 cellular fluid of the tissue that goes there. So
15 although energy through tissue, it doesn't go
16 through the tissue matrix. It goes through the
17 fluid there and you may create some steam or water
18 vapor.

19 But so energy, it's -- doesn't really
20 affect tissue, per se. So this is why the upper
21 bound is not predictable. Even if you don't
22 resect tissue, if you shrink tissue away from the

1 electrodes it's a similar effect.

2 Q And Ganz has a single example of an
3 applying electrodes to tissue, right?

4 MR. MUELLER: Objection to form.

5 A He gives two examples. He gives one
6 example in paragraph 65 where he describes
7 basically the pathology of it. So where he
8 describes basically -- where he describes one --
9 one example with parameters. And then there
10 is -- there is a figure, but Figure 9 and 10, if I
11 remember well, where he shows pathology.

12 But so I don't know, and I know we had
13 discussed that previously and Dr. Van Der Weide
14 agrees with me. We don't know if Figure 9 and 10
15 are related to the Example 55, but that's correct.
16 It gives one example with parameters.

17 Q Focusing on that example in paragraph 65,
18 that example involves monopolar, not bipolar,
19 right?

20 A That is correct.

21 Q And we don't know whether Figures 9 and 10
22 were obtained based on that monopolar example in

1 paragraph 65 or in some other way, right?

2 A That is correct.

3 Q And in your opinion, a bipolar needle
4 means having both poles on the same needle, right?

5 MR. MUELLER: Objection, form.

6 A Needle, yes. But he mentioned electrode
7 array. So an array can be bipolar. Then each
8 electrode within this array can -- will be
9 monopolar to make a bipolar system. So he doesn't
10 mention -- he mentioned mono-bipolar array is a
11 configuration. Doesn't mention bipolar electrodes
12 in the singular. It doesn't mention bipolar --
13 actually, he does something. He use something
14 biopolar, which I don't -- I'm not sure what it
15 means.

16 But in my -- in my understanding, a
17 mono -- a bipolar electrode, singular, would mean
18 one electrode with two -- one -- one pin with two
19 electrodes on it.

20 Q When Ganz uses the term biopolar, that's
21 referring to a bipolar needle in the sense that
22 you described, have two poles on the same needle,

1 right?

2 MR. MUELLER: Objection, form.

3 A I -- I have looked at that and I've seen
4 one reference of biopolar and I haven't found a
5 clear explanation of it, so I can only guess what
6 he meant. This is not a broadly used term,
7 biopolar. Some people told me it is a typo. I
8 am -- I am not sure. He repeats this term a
9 couple of times in this text. And I don't believe
10 it's a typo, but I am not totally clear of what he
11 meant by that.

12 Q In your expert report in the ITC, you
13 refer to biopolar in Ganz as describing a bipolar
14 needle having both poles on the same needle,
15 right?

16 A Yes, I did. And I know I did that. I
17 thought it's what it meant, but it's -- as you
18 know, after reading the document over and over
19 again, I've -- I had more and more doubt about my
20 initial interpretation of this terminology. And I
21 would -- I would stand by what I just say.

22 I am not sure what exactly he meant. So I

1 understand I said that in my report. This was my
2 initial understanding. As you know, as you --
3 with experience, you get wiser. And I'm not
4 totally sure what he really meant by that.

5 Q Let's move on to another reference now,
6 the Livneh reference which is Exhibit 1006.

7 (Exhibit 1006 marked for identification.)

8 A I have it. I have a printout, yes.

9 Q Okay. Actually, rather than starting with
10 Livneh itself, let's focus on what's described in
11 the declaration about Livneh. Exhibit 1003,
12 paragraph 59 on page 32.

13 A Yes.

14 Q And you -- that paragraph is discussing
15 the Livneh reference, right?

16 A This paragraph 58 you mentioned here,
17 correct?

18 Q 59?

19 A 59. Okay. Yes. Sorry, yes.

20 Q And paragraph 59 cites a portion of Livneh
21 which discloses a power supply 50 for supplying
22 the electrical current to the electrodes 32,

1 right?

2 A Yes.

3 Q And in Dr. Berube's declaration which
4 you've adopted, there's no discussion about any
5 disclosure in Livneh about the wattage or energy
6 level that its power supply provides to the
7 electrodes, right?

8 A There is no mention, no -- no mention of
9 the power in -- in the declaration. Yes. I agree
10 with what you say.

11 Q And in paragraph 59 toward the bottom of
12 the paragraph, there's disclosure from Livneh
13 that's quoted about a power supply 50 preferably
14 converts commercial AC electric power, e.g., a
15 120-volt 60-hertz signal to a radio frequency (RF
16 signal) i.e., an AC signal operating at a radio
17 frequency, right?

18 A Yeah. Correct, for the United States of
19 America, not the rest of the world, but yes.

20 Q And the Berube declaration does not point
21 to any disclosure in Livneh explaining any
22 advantages of using this AC RF system compared to

1 using other types of power sources, right?

2 MR. MUELLER: Objection to form.

3 A So this AC RF, he actually -- he -- he has
4 a paragraph -- I mean, I -- we, let's say, have a
5 paragraph somewhere on the -- mentioning the
6 benefits of using this power supply. This
7 is -- where is that? There is a paragraph on
8 that. I think it's 129. Am I correct? Let me
9 see here. Motivation, 113, combined, no -- yes.
10 It's somewhere else. This is the -- these are
11 page 58 -- 50, these are the motivation to combine
12 them. And these are -- let me see what this is.
13 I know there is a paragraph showing actually the
14 benefits of using -- of using --

15 Q Maybe I can be helpful, Dr. Woloszko.

16 A Yes. I -- yes.

17 Q So I believe there -- there are such
18 paragraphs but they are not about Livneh, at least
19 as I saw. So the paragraphs that I think you're
20 referring to are maybe paragraphs 97, 98, but my
21 question is focused on Livneh. So feel free to
22 look at those paragraphs but I want to come

1 back to my --

2 A I know there is a -- I know there is -- I
3 know. I'm pretty confident there is a paragraph.
4 I was reading it yesterday, where it showed the
5 benefits of using Livneh power supply, its
6 benefits and it's something I have reviewed. I
7 will -- if you give me a few more moments, and I
8 apologize for taking time, but I will -- I will
9 find them.

10 Q Okay.

11 A There is 117, which is the motivation to
12 use. So yes, paragraph page 49, if you look at
13 paragraphs -- page 59, paragraph 117, the POSITA
14 would have been motivated to use Livneh power
15 supply. That provides between -- open
16 parentheses, that provides alternating current for
17 Ganz device because a POSITA would have understood
18 that providing electrode with alternating current
19 having a radio frequency generate heat suitable
20 for skin treatment, etcetera, etcetera.

21 And then you go low, the second line --
22 the second line before last, the -- the line --

1 line before the last one: A POSITA would have
2 understood the benefits of using alternating
3 current, AC, as opposed of -- to using direct
4 current.

5 So it says this is the -- this is the
6 benefit of using -- of using basically Livneh's
7 description of the power supply.

8 Q My question is whether the Berube
9 declaration that you adopt, whether it points to
10 any disclosure in Livneh explaining any advantages
11 of using an AC RF system as compared to other
12 power sources?

13 A I think paragraph 117 mentioned the
14 motivation to use. And again, it says this --
15 these are the benefits. And there are multiple
16 paragraphs where he explains why anything other
17 than DC is very undesirable and why only AC should
18 be used, and why any person skilled in the art
19 would have understood that the description of Ganz
20 is because it's not disclosed any other way has to
21 be AC.

22 But in case this is -- this will not be

1 understood by the -- the reader, somebody doesn't
2 have expertise in the art, this would reinforce
3 that this -- this has to be AC and he explains in
4 length in the -- in the report why AC is
5 beneficial and only AC should and could be used
6 for this application.

7 Q I understand. Dr. Berube offers that
8 opinion and you adopt it?

9 A Yes.

10 Q Is there any -- can you point me to
11 anything in the Berube declaration that you
12 believe is discussing disclosure in Livneh about
13 advantages of using an AC RF system as compared to
14 any alternative?

15 A Yes. I -- I repeat myself.
16 Paragraph 117, the POSITA would have been
17 motivated to use Livneh power supply that provide
18 alternating current for Ganz device because POSITA
19 would have understood that providing electrodes,
20 the current having radio frequency generate heat
21 suitable for skin treatment.

22 And later on it says to refer to that also

1 as discussed in section 8.A.1.C.2 above, the
2 POSITA would have understood the benefits, and
3 with emphasis on benefits, of using alternating
4 current open parentheses, AC as opposed to using
5 direct current, parentheses, DC. So this is the
6 benefits.

7 So I think, and he -- this is clearly
8 referring to Livneh's power supply and the
9 benefits that this power supply would offer.

10 Q Let's go to that section that you just
11 mentioned which starts on page 45. And
12 specifically, I'd like to direct your attention to
13 paragraph 97 that starts at the bottom of page 48
14 in that section.

15 A Okay. So we -- page 45 is paragraph 92.
16 So paragraph -- okay. Paragraph 97?

17 Q Correct.

18 A Yes.

19 Q Okay. Paragraph 97 states in the first
20 sentence: A POSITA would understand that use of
21 direct current (DC) for skin treatment is
22 undesirable.

1 Right?

2 A Yes.

3 Q So paragraph 97 continues, but in that
4 paragraph, there are no citations to evidence,
5 right?

6 A No. Because there are so many there is no
7 citation, yes. That's correct.

8 Q Now, if we go forward to the next
9 paragraph, paragraph 98 states in the first
10 sentence: Indeed, an international standard for
11 safety of high frequency surgical equipment, IEC
12 60601-2-2, prohibits the use of DC signals.

13 Right?

14 A That's correct.

15 Q And the citation after that sentence is to
16 Exhibit 1030 at page 20, right?

17 A Yes.

18 Q Okay. Let's take a look at that exhibit,
19 Exhibit 1030?

20 (Exhibit 1030 marked for identification.)

21 A Yes. You have them -- I mean, I don't
22 have it with me here. But if you download it,

1 I'll look at it.

2 Q We'll do that.

3 A This is the 2009 version or this is
4 the -- or later version?

5 Q Yeah. We can start on the first page.

6 A Here -- yeah. Here it is. Yeah.

7 Q Let me know when you're ready, Dr.
8 Woloszko.

9 A Yes. I see the text but let me download
10 it here. Come on. Why does it not show it to me?
11 Here it is. Okay. Yes. It opened it. Yes. I
12 have it. Yes.

13 Q Looking at the first page of Exhibit 1030,
14 the --

15 A I see -- my version, yes. Sorry, I spoke
16 over you. Go ahead. I apologize.

17 Q Looking at the first page of Exhibit 1030,
18 the IEC standard, do you see that there is a
19 "withdrawn" in letters printed across the page,
20 right?

21 A Yes. You know, as this is the way it is,
22 this -- IEC standard are updated frequently and

1 this is the -- for various reasons, I was on the
2 committee so I know exactly what happened at the
3 time. And this is the standard that was in
4 the -- in the -- was active in -- was released in
5 2008, I think, '7, was active since 2009 until the
6 next version, which I think was -- was in '20.

7 Yes.

8 Q And this is the version of the IEC
9 standard that was referenced in the Berube
10 declaration, the paragraph we were just looking
11 at, right?

12 A Yes. I believe so.

13 Q And let's turn to page 8 of the standard.
14 It's page 8 at the top.

15 A Yes.

16 Q And there's a section there, section
17 201.1.1, Scope.

18 Do you see that?

19 A Yeah.

20 Q Do you see there's a paragraph that
21 begins, HF Surgical Equipment?

22 A Yes.

1 Q And it states: HF surgical equipment
2 having a rated power output not exceeding 50 watts
3 (for example for micro coagulation for use in
4 dentistry or ophthalmology) is exempt from certain
5 requirements of this particular standard.

6 A Absolutely. And these exemption are
7 indicated in the relevant requirements. And I
8 have a list of those -- of those exemptions. I
9 know them very well. I know exactly why they --
10 the reason why this has been put together is
11 because there is a very old system that very much
12 used by -- by dermatologist -- I mean the -- and
13 the -- to do small resection is because this is
14 called the ithocator and this is a monopolar
15 system that is not using neutral electrode, what
16 some people incorrectly call grounding electrode.
17 It would be terrible -- so grounding neutral
18 electrode. And this used -- system is using
19 something different.

20 And this is, and if you -- if go through
21 all the -- read through that, there is only for
22 monopolar and they are very specific. And there,

1 I believe, almost all of this relate to the
2 grounding pad. And none of them have any effect
3 on the output capacitor which is required for any
4 medical surgical equipment, high frequency
5 surgical equipment.

6 Q Indeed, if we go back to paragraph 98 of
7 the Berube declaration, Exhibit 1003 --

8 A Yes.

9 Q -- it asserts that this international
10 standard for safety of high frequency surgical
11 equipment prohibits use of DC signals, right?

12 A Correct.

13 Q And you agree with that?

14 A Yes. I do agree with that.

15 Q You understand that there have been direct
16 current electrical surgical devices that were
17 evaluated against this IEC standard and approved
18 for use by the FDA even recently, right?

19 A I disagree twice for none of them has been
20 approved. As you know, they are -- they would
21 have been cleared and I don't know of any non DC
22 system in my knowledge. Although some of your

1 expert incorrectly mentioned those. And I would
2 be more than happy to review them.

3 Q Let's take a look at CX 2845.

4 (Exhibit CX2845.1 marked for
5 identification.)

6 A Okay. Why don't you download it. How do
7 open this again? Okay. I have it in front of me.

8 Q Do you see that this is an FDA 510(k)
9 clearance letter dated June 17th, 2022?

10 A Yes, I do.

11 Q Can you see in the clearance letter for
12 regulation name, states electrosurgical cutting
13 and coagulation device and accessories?

14 A Yes.

15 Q Let's go to page 4 of the document.

16 A Yes.

17 Q And you see at the top, states 510(k)
18 summary and gives the 510(k) number K212781?

19 A Yes.

20 Q And go down in the page below the
21 section -- same page.

22 A Yeah. Specification name.

1 Q Yes. You see Classification Name: Low
2 energy direct current thermal ablation system?

3 A Yes. I see that.

4 Q If we go forward to page 8 of the
5 document.

6 A Yes. Page 8, okay. Page -- sorry.

7 Q It's one that --

8 A Page 8. Eight of the -- of the PDF file.
9 Yes.

10 Q Correct?

11 A Yes.

12 Q Page 8 of the PDF file?

13 A Yes.

14 Q It's got eight at the bottom of the page.

15 A Yeah, yeah. I know where you are.

16 Q And here we see a table of standards --

17 A Yes.

18 Q -- that the subject device was tested
19 against, correct?

20 A Yes.

21 Q If you look down to the seventh row, you
22 see that the device was tested against

1 IEC60601-2-2 2017 Edition 6.0, right?

2 A Yes. Absolutely. I see that.

3 So can I -- I mean, do you have a question
4 about it or you want me to make a comment about
5 it?

6 Q No. That was all.

7 A Okay. So if you won't mind, I'd like you
8 to -- yeah -- the

9 Q There's no question pending, Dr. Woloszko.

10 A These device is a -- is an alternating
11 current --

12 Q There's no question pending, Dr. Woloszko.
13 I'm turning to another question.

14 MR. MUELLER: Counsel, you're speaking
15 over the witness. He's answering.

16 MR. SANDERS: You're welcome to ask him
17 question, but I'm not interested in speeches here.
18 I'm interested in answer to my questions. That's
19 what I'm entitled --

20 A This device describe a biphasic
21 alternating current system, is not DC. So I stand
22 by my declaration. This is not a direct current

1 cleared -- cleared by FDA system. It's a
2 classification of -- of direct current for long
3 reason of different system using cell apoptosis
4 and the original nano-knife is using very low
5 frequency process at high voltage. This is the --
6 this is -- was the predicate the Aliya system
7 using biphasic square pulses which is alternating
8 current in a monopolar fashion using a neutral
9 electrode and because they use AC current, they do
10 refer to the -2-2.

11 Q Thank you for the speech, Dr. Woloszko,
12 that was unresponsive to any question I asked.

13 A I understand.

14 MR. SANDERS: That of course is something
15 that make the motion orally now move to strike as
16 nonresponsive.

17 Q We can now turn to another exhibit so I
18 can ask you questions and you can provide answers
19 which is what the purpose of today's exercise is.

20 A Obviously.

21 Q Let's go to Exhibit 1007.

22 (Exhibit 1007 marked for identification.)

1 Q This is the Hantash reference that you
2 considered, right?

3 A Yes.

4 Q Hantash focuses on creating zones of
5 denaturation between RF electrodes, right?

6 A Correct.

7 Q Hantash does not disclose applying RF
8 energy to create perforations, correct?

9 A He perforate tissue with needles. He
10 doesn't mention the word perforation, but
11 obviously he inserts needle in tissue that, for
12 me, inserting a needle in tissue is a perforation.
13 But he doesn't use this term in the specification
14 or the claim of the -- of the patent application,
15 the PC --

16 Q Okay.

17 A Yeah.

18 Q I understand. You're referring to the
19 mechanical insertion of the needles. I want to
20 focus on energy application.

21 My question is: Hantash does not disclose
22 applying RF energy to create perforations,

1 correct?

2 A He does not use this set of words,
3 correct.

4 Q Now, do you believe that a person of
5 ordinary skill in the art would have been
6 motivated to apply Hantash's pulse duration to
7 Ganz's device in order to avoid generating too
8 much heat?

9 A Yes. They -- they apply to very
10 similar -- to very similar intent and treatment
11 modalities. And there is a lot of reason why a
12 person of skill in the art, we use the system
13 describe by Hantash to -- to the system to
14 the -- to the electrode set described by Ganz.

15 Q And what's too much heat?

16 A That's -- that's a good point. I have
17 published papers showing that standard electro
18 system generate heat up to 1,500 degrees. Now,
19 this is not considered as too much by most of
20 surgeon because this is use hundreds of thousands
21 of time every day because it's very local, but
22 this will create, I think, what now is improperly

1 describes as carbonization.

2 So basically the too much heat is too much
3 for the intent you have. In this case, is to --
4 all of those patent that describe to create a
5 controlled lesion and too much heat is basically
6 more heat than you need to create the lesion you
7 intend. And this depends of basically its setup.

8 MR. SANDERS: Thank you, Dr. Woloszko. No
9 further questions.

10 MR. MUELLER: Counsel, can we take a break
11 at some point? We can go off the record.

12 (Whereupon a break was had.)

13 EXAMINATION

14 BY MR. MUELLER:

15 Q Dr. Woloszko, you spoke a little while ago
16 about a document which is labeled CX 2845.1.

17 Do you recall?

18 A Yes. This is the Manstein, if I remember
19 correct.

20 Q No. It's not. It's the FDA.

21 A Oh, yes. Yeah. So yes. Yes.

22 Q Now, can you explain whether that document

1 is describing a DC current source that's applied
2 to the cutting device?

3 A Sorry, the 2851 -- this is -- yeah.
4 212871. Yeah. This is the Galvanized Therapeutic
5 clearance letter.

6 Q Correct.

7 A No. These actually defines -- this is a
8 very interesting question because I was puzzled by
9 this document. And this is referring to a new
10 family of device, a new about 20 years old, which
11 is new for FDA. FDA is slow to react. And the --
12 I believe one of the first device in this field
13 was called nano-knife, which was sending very high
14 -- very high level of -- of a voltage, very high
15 energy for a short time and did not remove any
16 tissue.

17 This is -- this is used to remove -- to
18 kill tumor. And through what they say apoptosis.
19 Apoptosis -- A-P -- A-P-O-T-O -- Apoptosis, S-I-S,
20 which is means programmed cell death, and this is
21 the way to affect the membrane of -- of the cells.
22 And the membrane is affected and basically we leak

1 ions and the cell will die in time. And this was
2 very interesting for cancer.

3 And then but, you know, it test all kind
4 of whatever negative thing, but it's great.

5 So Aliya came with a system that does a
6 similar effect, the -- the predicate. And if you
7 look at this document on the last page which is
8 the page 10 of 10 and the -- the middle paragraph,
9 and it's clear in addition, galvanized performed
10 ex-vivo tissue ablation performance testing
11 following the guidance document premarket
12 notification submission for electrosurgical device
13 general surgery. So this is in addition dated --
14 the performance comparison of testing and
15 evaluation between the bipolar monophasic
16 nano-knife. This is the predicate, which is a
17 very low frequency system and possibly -- it's
18 actually synchronized with the heart.

19 And it says the -- the monopolar biphasic.
20 Biphasic Aliya is means -- and this is very well
21 known in any kind of -- and you can ask any
22 bioengineer, biphasic mean you have a positive

1 phase and a negative phase that are of the same
2 energy level, so same number of particle. They
3 don't have the same shape, but the same energy on
4 each side which basically creates a current as
5 defined as alternating because it has a zero mean
6 over one cycle. And this is why they were able to
7 apply the 60601-2-2 standard.

8 So this is alternating current system and
9 it in no way is it any direct current. Although,
10 if you only read the title of the book or the
11 title of the thing can be misleading. But if you
12 read the content of the document, you clearly
13 understand this has nothing to do with alternating
14 current.

15 Q Okay.

16 A With -- with direct current. Sorry.

17 Q Yes. It sounds -- you -- I think you
18 mixed DC and AC up a couple of times, but one, in
19 particular, with Manstein which is Exhibit 1014.

20 Do you recall --

21 A Yeah.

22 Q -- your testimony regarding that?

1 A I think he -- I understand he likes to be
2 called Manstein, but as I would say Manstein, but
3 yeah, it's -- it's called Manstein. Yes.

4 Q And I believe you testified that the AC is
5 part of the system that's used for nerve
6 detection?

7 A Oh, yes.

8 Q Is that correct?

9 A No. What -- what I meant to say is the RF
10 is always alternating current, AC, where the nerve
11 stimulation in his description can be DC, direct
12 current. They send pulses. There usually, as I
13 said -- I explained -- I think explained during my
14 testimony, my deposition, that good practice is to
15 use a capacitor to make it AC. But some cheap
16 neurostimulator use only direct current. And
17 the -- which is okay to send a small number of
18 pulses. And I think I explained that, so it's
19 obvious in my description that we talked about
20 direct current.

21 Q And so the DC part of Manstein is used
22 only for nerve detection; is that your

1 understanding?

2 A That's my understanding. Yes.

3 Q Okay.

4 MR. MUELLER: That's all I have.

5 MR. SANDERS: No further questions. Okay.

6 THE REPORTER: I believe I have standing
7 orders, Mr. Sanders for you.

8 But I do not, Mr. Mueller, for you. Do
9 you want a rough draft?

10 MR. MUELLER: Yeah. I'll have our
11 paralegal get in contact with you. I don't -- we
12 don't need it rushed, I don't believe. A rough
13 might be worthwhile to look at.

14 REMOTE TECHNICIAN: But you do want a copy
15 though?

16 MR. MUELLER: Yes.

17 (Whereupon the proceedings were concluded at
18 11:30 a.m. CST)

19

20

21

22

1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

2
3 I, Karisa Ekenseair, Certified Reporter and
4 Notary Public within and for the State of Arkansas
5 do hereby certify: That JEAN WOLOSZKO, PHD,
6 the witness whose deposition is hereinbefore set
7 forth, was duly sworn by me before the
8 commencement of such deposition and that such
9 deposition was taken before me and is a true
10 record of the testimony given by such witness.

11 I further certify that the adverse party,
12 Patent Owner, was represented by counsel at
13 the deposition.

14 I further certify that the deposition of
15 JEAN WOLOSZKO, PHD, occurred virtually on
16 October 10, 2024, commencing at 9:01 a.m. CST to
17 11:30 a.m. CST.

18 I further certify that I am not related to any
19 of the parties to this action by blood
20 or marriage, I am not employed by or an attorney
21 to any of the parties to this action, and that I
22 am in no way interested, financially or otherwise,

1 in the outcome of this matter.

2
3 IN WITNESS WHEREOF, I have hereunto set my hand
4 and affixed my notarial seal this 15th day of
5 October 2024.

6 My commission expires: 6-18-2028

7 
8 _____

9 Karisa Ekenseair, CCR, RPR LS #802

10 Notary Public in and for

11 Pulaski County, Arkansas

12 Commission No. 12704567
13
14
15
16
17
18
19
20
21
22

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

94

A			
a-p	9:11, 15:17,	40:7, 56:12	affixed
87:19	28:15, 31:2,	actually	93:4
a-p-o-t-o	34:18, 36:3,	28:5, 46:14,	after
87:19	37:2, 40:4,	49:20, 55:5,	20:7, 26:1,
ablate	41:11, 46:17,	59:14, 66:13,	27:15, 32:9,
31:6	48:9, 51:11,	68:9, 70:3,	32:15, 63:12,
ablated	52:21, 59:15,	70:13, 87:7,	63:15, 67:18,
27:16	64:11, 67:19,	88:18	75:15
ablating	68:11, 69:4,	adapted	again
13:6	69:5, 69:13,	54:19	7:10, 33:14,
ablation	70:18, 73:12,	add	35:9, 45:13,
13:19, 13:21,	82:4, 86:16,	52:5	48:6, 50:6,
24:17, 29:5,	87:10, 90:19	added	54:21, 55:17,
29:9, 29:13,	above	36:11	60:5, 67:19,
29:14, 30:4,	74:1	addition	72:14, 80:7
30:11, 30:15,	absolutely	88:9, 88:13	against
30:16, 30:18,	61:8, 78:6,	additional	79:17, 81:19,
30:19, 31:10,	82:2	20:3	81:22
31:12, 31:13,	ac	additionally	age
31:16, 31:19,	20:15, 21:18,	59:3	7:3
32:1, 32:3,	22:3, 22:12,	address	aggressive
32:14, 32:20,	23:1, 23:9,	18:10, 18:16	46:9, 46:22
33:1, 33:4,	69:14, 69:16,	administration	ago
34:14, 34:22,	69:22, 70:3,	6:9	25:7, 41:4,
38:2, 41:19,	72:3, 72:11,	adopt	60:3, 86:15
42:22, 43:5,	72:17, 72:21,	15:1, 72:9,	agree
43:8, 43:10,	73:3, 73:4,	73:8	14:18, 35:8,
43:11, 44:4,	73:5, 73:13,	adopted	39:7, 42:2,
44:7, 44:9,	74:4, 83:9,	14:14, 15:21,	43:3, 52:8,
46:8, 46:21,	89:18, 90:4,	18:9, 19:14,	55:1, 69:9,
47:4, 47:19,	90:10, 90:15	38:8, 69:4	79:13, 79:14
48:5, 48:8,	accepted	adopting	agrees
48:15, 48:17,	43:10	15:11, 16:21,	65:14
49:11, 49:17,	access	41:10	ahead
50:4, 50:6,	11:6	advantage	76:16
50:7, 50:11,	accessories	54:10	al
50:12, 81:2,	80:13	advantages	23:22, 27:19,
88:10	accurately	69:22, 72:10,	28:15
ablative	7:17	73:13	aliya
28:17, 28:22	across	adverse	83:6, 88:5,
able	47:14, 76:19	92:11	88:20
89:6	action	aesthetic	all
abnormal	92:19, 92:21	32:10	9:14, 33:11,
29:19, 29:20	active	affect	33:17, 38:5,
about	77:4, 77:5	63:5, 64:20,	41:14, 44:11,
8:20, 9:1, 9:6,	actual	87:21	51:17, 78:21,
	30:20, 34:2,	affected	79:1, 82:6,
	34:10, 37:9,	87:22	86:4, 88:3, 91:4

almost 31:3, 79:1 alone 19:21 already 9:10 also 3:19, 9:5, 20:3, 22:13, 36:11, 52:8, 58:21, 59:6, 73:22 alternating 71:16, 71:18, 72:2, 73:18, 74:3, 82:10, 82:21, 83:7, 89:5, 89:8, 89:13, 90:10 alternative 73:14 although 22:20, 56:8, 63:22, 64:15, 79:22, 89:9 always 30:7, 63:14, 90:10 america 69:19 among 38:21 amount 9:10, 35:3, 61:2, 61:8, 62:4, 63:2, 63:4 and-something-page 29:11 another 8:12, 21:17, 22:1, 68:5, 82:13, 83:17 answer 25:20, 43:1, 82:18 answering 82:15	answers 83:18 anticipation 17:3 any 7:16, 8:8, 16:4, 17:18, 23:3, 23:4, 31:2, 35:7, 35:21, 48:3, 48:11, 69:4, 69:21, 72:10, 72:18, 72:20, 73:10, 73:14, 79:2, 79:3, 79:21, 83:12, 87:15, 88:21, 89:9, 92:18, 92:21 anybody 23:10 anymore 63:21 anyone 7:22, 8:7 anything 72:16, 73:11 anywhere 49:4 apologies 27:9, 27:11, 28:4, 62:22 apologize 61:1, 71:8, 76:16 apoptosis 83:3, 87:18, 87:19 apparent 33:3 appeal 1:2 appearances 4:4 application 4:17, 4:20, 4:22, 5:4, 17:16, 63:6,	73:6, 84:14, 84:20 applicator 28:16 applied 16:21, 17:3, 17:7, 39:5, 61:2, 61:13, 87:1 apply 48:20, 62:4, 85:6, 85:9, 89:7 applying 65:3, 84:7, 84:22 appreciate 8:16 approved 79:17, 79:20 area 38:3 areas 29:3, 47:18, 59:7 arkansas 2:12, 2:17, 92:4, 93:11 around 48:18, 49:7, 52:15, 59:11, 62:13, 64:4, 64:5, 64:9 arranged 24:3, 44:21, 45:5 array 24:3, 66:7, 66:8, 66:10 arrhythmia 29:18 art 17:16, 17:17, 17:19, 23:11, 23:16, 31:11, 45:22, 72:18, 73:2, 85:5, 85:12 article 5:10	asked 83:12 asserted 38:16, 38:19 asserts 79:9 assume 58:3, 61:21 asymptotic 63:15 attached 4:13, 5:2, 6:2 attended 18:20 attention 21:9, 37:7, 38:12, 74:12 attorney 92:20 author 32:1, 32:3, 39:6 automatically 61:16 available 37:16 avenue 3:8 avoid 8:12, 85:7 avoiding 9:13 away 23:13, 38:6, 64:22 B back 9:14, 14:2, 14:21, 23:18, 27:18, 38:7, 48:22, 71:1, 79:6 background 19:13, 23:19 balance 23:2 based 65:22
--	--	--	--

basically 35:6, 43:13, 49:19, 52:12, 53:18, 58:4, 61:9, 61:18, 62:8, 63:9, 65:7, 65:8, 72:6, 86:2, 86:5, 86:7, 87:22, 89:4 because 8:14, 11:7, 11:8, 12:5, 12:6, 22:12, 29:22, 31:19, 35:9, 39:18, 39:22, 41:15, 44:6, 48:19, 50:16, 52:14, 52:16, 53:4, 53:11, 54:7, 56:13, 56:21, 58:5, 59:15, 61:13, 63:15, 64:10, 71:17, 72:20, 73:18, 75:6, 78:11, 78:13, 83:9, 85:20, 85:21, 87:8, 89:5 become 30:16, 54:3 been 15:15, 23:7, 30:4, 33:6, 71:14, 73:16, 78:10, 79:15, 79:19, 79:21, 85:5 before 1:2, 2:10, 8:11, 19:19, 20:13, 23:22, 30:6, 43:8, 53:10, 53:21, 71:22, 72:1, 92:7, 92:9 beginning 63:19	begins 38:16, 51:12, 52:1, 77:21 behalf 3:2, 3:12 being 7:3, 48:13, 49:20, 61:22, 63:19, 64:6, 64:9 belief 29:16 believe 10:22, 20:22, 35:20, 36:2, 36:4, 46:10, 50:10, 50:13, 50:21, 58:12, 67:9, 70:17, 73:12, 77:12, 79:1, 85:4, 87:12, 90:4, 91:6, 91:12 below 80:20 beneficial 73:5 benefit 72:6 benefits 70:6, 70:14, 71:5, 71:6, 72:2, 72:15, 74:2, 74:3, 74:6, 74:9 berube 15:17, 25:16, 41:17, 43:4, 51:9, 52:6, 69:20, 72:8, 73:7, 73:11, 77:9, 79:7 berube's 14:15, 15:2, 15:8, 15:12, 15:21, 16:22, 18:9, 19:14, 27:7, 27:14,	38:7, 41:10, 41:11, 44:2, 44:18, 55:5, 69:3 best 8:17, 8:18 better 22:10 between 17:18, 31:6, 40:15, 58:2, 71:15, 84:5, 88:15 big 29:22, 30:21, 38:6, 54:3, 57:22 bigger 52:16, 54:8 bioengineer 88:22 biopolar 66:14, 66:20, 67:4, 67:7, 67:13 biopsies 32:8, 32:13 biphasic 82:20, 83:7, 88:19, 88:20, 88:22 bipolar 24:3, 44:21, 45:2, 45:6, 65:18, 66:3, 66:7, 66:9, 66:11, 66:12, 66:17, 66:21, 67:13, 88:15 bit 52:14, 56:10, 58:9 bleeding 45:16, 45:20 blood 92:19 blue 31:14, 31:15,	31:19 board 1:2 book 89:10 boston 3:16 both 40:14, 45:3, 49:15, 56:11, 59:18, 61:17, 66:4, 67:14 bottom 11:15, 14:11, 14:22, 37:10, 42:18, 47:16, 69:11, 74:13, 81:14 bound 56:14, 62:3, 62:6, 62:11, 62:22, 63:1, 64:1, 64:2, 64:21 bracket 30:15 break 43:16, 43:21, 86:10, 86:12 broadly 67:6 bullets 17:15 burning 40:14 bérubé 4:15 C california 2:14 call 29:14, 55:16, 55:18, 56:12, 78:16 called 22:18, 30:22, 31:15, 31:16,
--	---	--	---

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

97

31:18, 48:1, 55:17, 55:19, 78:14, 87:13, 90:2, 90:3 calls 55:16 came 88:5 cancer 88:2 cannot 7:16, 25:20, 33:22, 42:2, 50:18, 56:13 capable 21:18, 22:2, 28:16 capacitor 23:2, 79:3, 90:15 caption 32:12, 34:13 carbonization 39:4, 39:12, 40:5, 40:9, 86:1 carbonized 39:15 cardiac 29:17, 29:18 case 1:10, 54:8, 58:16, 72:22, 86:3 cases 58:19 cause 29:9, 38:22, 40:16, 46:3 causing 45:19, 47:19 caveat 43:7 ccr 1:22, 93:9 cell 83:3, 87:20, 88:1 cells 29:19, 30:4,	33:12, 87:21 cellular 64:14 celsius 31:2 center 56:13 centimeter 59:20, 60:19, 60:20, 62:7 certain 57:5, 57:7, 78:4 certificate 4:10, 92:1 certified 2:11, 92:3 certify 92:5, 92:11, 92:14, 92:18 charge 23:3 charged 24:4 charles 3:13 chat 11:11, 11:14, 11:16, 11:19, 12:1, 14:6, 15:22, 21:3, 21:5, 26:4, 36:12, 42:11 cheap 90:15 check 21:5 chemical 31:4 chicago 3:9, 7:21 chronic 23:6 citation 75:7, 75:15 citations 75:4 cite 20:8, 28:4	cited 26:1 cites 68:20 claim 11:4, 12:19, 13:1, 13:4, 17:11, 84:14 claimed 17:18 claims 38:16, 38:19 clarendon 3:15 clarity 28:20 classification 81:1, 83:2 clear 11:9, 44:1, 49:14, 50:9, 50:20, 54:13, 67:5, 67:10, 88:9 clearance 80:9, 80:11, 87:5 cleared 79:21, 83:1 clearly 49:22, 51:1, 62:17, 74:7, 89:12 click 11:17 close 12:15, 24:6, 47:18, 49:1, 49:2, 51:18 coagulated 24:18, 53:20 coagulation 24:17, 29:15, 30:12, 30:20, 31:3, 31:4, 31:15, 31:20, 32:14, 33:2, 33:19, 38:22,	39:3, 39:12, 40:2, 44:7, 44:8, 48:2, 48:4, 49:6, 51:16, 51:22, 52:10, 53:6, 53:17, 54:14, 55:22, 57:6, 59:6, 59:11, 63:11, 78:3, 80:13 coagulations 46:3, 56:5 coblation 30:22 column 12:20, 13:9, 13:13, 26:21, 28:2, 28:7, 46:15 combine 70:11 combined 70:9 come 70:22, 76:10 comes 27:15 commencement 92:8 commencing 92:16 comment 52:5, 82:4 commercial 18:5, 18:12, 19:7, 69:14 commission 93:6, 93:12 committee 77:2 common 43:10 communicating 8:7 compared 69:22, 72:11, 73:13
---	---	--	---

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

98

compares 56:6	15:15, 84:2, 85:19	32:20, 33:3, 37:11, 37:18, 38:4, 39:16, 40:8, 40:17, 40:21, 40:22, 41:9, 42:22, 43:3, 46:5, 46:10, 47:2, 50:22, 51:3, 51:21, 52:4, 54:12, 55:3, 55:9, 55:20, 56:2, 57:8, 57:13, 57:14, 59:8, 59:9, 59:12, 62:4, 63:2, 63:3, 65:15, 65:20, 66:2, 68:17, 69:18, 70:8, 74:17, 75:7, 75:14, 79:12, 81:10, 81:19, 84:6, 84:8, 85:1, 85:3, 86:19, 87:6, 90:8	46:7, 46:20, 47:13, 52:10, 52:11, 55:21, 57:11, 63:17, 64:10, 64:17, 84:8, 84:22, 85:22, 86:4, 86:6
comparison 88:14	consisting 24:2		created 52:2, 58:18, 58:20, 59:2, 59:7
complete 15:10, 36:21, 38:2	constant 61:22, 62:1		creates 45:19, 49:16, 89:4
completes 35:12	contact 91:11		creating 50:13, 57:5, 84:4
complex 62:2	content 17:17, 89:12		critical 8:14
component 23:17	continuation 28:6		cst 1:16, 91:18, 92:16, 92:17
compressed 33:18	continue 37:19		current 21:19, 22:3, 68:22, 71:16, 71:18, 72:3, 72:4, 73:18, 73:20, 74:4, 74:5, 74:21, 79:16, 81:2, 82:11, 82:21, 82:22, 83:2, 83:8, 83:9, 87:1, 89:4, 89:8, 89:9, 89:14, 89:16, 90:10, 90:12, 90:16, 90:20
concentric 56:17	continues 24:10, 32:16, 75:3		currently 47:1
concentrically 56:15, 56:20	controlled 24:19, 86:5		cutting 31:12, 31:16, 31:17, 40:8, 80:12, 87:2
concluded 91:17	conundrum 53:14, 54:2		cx 6:9, 80:3, 80:4, 86:16
condition 39:11	convenient 16:12		
conducted 1:13, 2:1, 24:1	conversations 18:17, 19:7		
confident 71:3	converts 69:14		
configuration 44:21, 66:11	copy 11:10, 45:11, 91:14		
configured 38:22	corneum 33:11		
confirm 36:8, 40:9	correct 8:22, 9:21, 10:1, 10:11, 13:3, 13:22, 14:1, 14:19, 15:8, 15:9, 17:1, 17:4, 17:5, 17:9, 17:19, 17:20, 18:3, 18:6, 18:7, 18:14, 18:19, 19:22, 20:5, 20:6, 20:10, 21:20, 22:3, 26:19, 29:7, 32:16,	counsel 35:19, 82:14, 86:10, 92:12	
confirmation 20:12		county 93:11	
confirms 20:11		couple 67:9, 89:18	
confusing 22:9, 22:11, 48:6		course 83:14	
consequent 53:12		crater 33:22	
consider 17:11, 40:22		crater-shaped 32:19, 33:1, 33:4	
considerations 18:1, 18:11		craters 33:5	
considered 15:3, 15:11,		create 34:5, 46:2,	

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

99

cycle 89:6	15:2, 15:8, 15:12, 15:18, 15:21, 16:22, 18:9, 19:14, 27:8, 27:15, 38:7, 41:10, 51:9, 55:6, 68:11, 69:3, 69:9, 69:20, 72:9, 73:11, 77:10, 79:7, 82:22	depends 49:13, 58:20, 86:7	description 4:14, 5:3, 6:3, 39:8, 72:7, 72:19, 90:11, 90:19
D		deposed 9:1	designed 29:9
damage 23:3, 23:6, 37:21, 38:2, 40:16, 41:8, 47:19, 48:21, 54:7, 54:8	define 44:7, 44:9, 50:9, 60:21, 61:13	deposes 7:3	desirable 46:7, 46:20
dany 4:15	defined 59:21, 89:5	deposition 1:13, 2:1, 7:12, 90:14, 92:6, 92:8, 92:9, 92:13, 92:14	desired 58:16
date 19:19	defines 60:4, 60:18, 87:7	depositions 8:13	detection 22:14, 22:17, 23:12, 90:6, 90:22
dated 6:9, 80:9, 88:13	definition 43:8, 48:4	depressed 33:8	determining 17:11
day 85:21, 93:4	degree 31:2	depth 27:16, 59:2, 59:4	developing 30:22
dc 20:15, 21:19, 22:3, 22:12, 23:17, 72:17, 74:5, 74:21, 75:12, 79:11, 79:21, 82:21, 87:1, 89:18, 90:11, 90:21	degrees 85:18	der 19:3, 65:13	device 21:14, 23:12, 24:2, 24:12, 24:14, 27:2, 29:8, 32:10, 38:21, 41:2, 41:6, 41:7, 43:12, 45:6, 45:19, 56:3, 71:17, 73:18, 80:13, 81:18, 81:22, 82:10, 82:20, 85:7, 87:2, 87:10, 87:12, 88:12
dead 33:11, 33:12	deliver 60:1, 60:13	dermis 37:21, 40:14	devices 37:16, 37:20, 45:12, 45:14, 46:1, 79:16
dealt 53:5	delivered 63:4, 64:3, 64:6	describe 29:12, 30:6, 38:20, 40:6, 41:6, 45:1, 63:1, 82:20, 85:13, 86:4	diameter 58:2, 58:3, 58:10, 58:14, 58:17
death 87:20	delivering 28:17, 28:22, 32:9	described 23:8, 28:21, 39:9, 41:2, 44:19, 49:4, 66:22, 68:10, 85:14	die 88:1
december 6:7	delivery 24:5	describes 22:13, 39:7, 51:5, 54:14, 57:4, 61:17, 65:6, 65:8, 86:1	differences 17:18
decide 47:5	demonstrating 32:13	describing 67:13, 87:1	different 20:14, 44:14,
decided 29:14	denaturation 33:19, 84:5	descried 48:21	
deciding 15:1	density 59:19		
declaration 4:15, 5:15, 9:19, 10:1, 10:4, 10:9, 10:12, 14:3, 14:14, 14:15,	dentistry 78:4		
	depend 61:3		
	depending 59:16		

Transcript of Jean Woloszko, Ph.D.
 Conducted on October 10, 2024

100

49:11, 56:21, 60:13, 78:19, 83:3 differently 53:15, 54:9 dip 53:8 direct 16:16, 21:9, 37:7, 38:12, 72:3, 74:5, 74:12, 74:21, 79:15, 81:2, 82:22, 83:2, 89:9, 89:16, 90:11, 90:16, 90:20 directed 40:19, 41:1 direction 13:13 directions 51:17 directly 29:3, 64:7 disagree 79:19 discharged 58:22, 59:1 disclose 84:7, 84:21 disclosed 51:22, 72:20 discloses 51:13, 51:16, 54:17, 57:19, 60:11, 68:21 disclosure 51:4, 57:10, 69:5, 69:12, 69:21, 72:10, 73:12 discovered 46:6, 46:19 discussed 52:8, 65:13, 74:1 discussing 68:14, 73:12	discussion 26:21, 69:4 distance 54:6 distinguishes 39:2 document 25:5, 30:10, 31:9, 36:8, 36:13, 39:9, 67:18, 80:15, 81:5, 86:16, 86:22, 87:9, 88:7, 88:11, 89:12 documents 12:10, 60:7, 60:9 doing 29:17 done 12:12, 44:17 dot 25:3, 25:12 doubt 67:19 down 11:15, 13:4, 24:11, 27:2, 28:11, 46:17, 47:8, 47:12, 51:11, 80:20, 81:21 download 14:9, 35:16, 36:14, 42:10, 42:12, 75:22, 76:9, 80:6 downtown 7:20 dr 5:15, 7:8, 12:16, 14:13, 14:15, 15:2, 15:8, 15:12, 15:17, 15:21, 16:22, 18:9, 19:1, 19:3,	19:14, 25:16, 27:7, 27:14, 36:7, 36:21, 38:7, 41:10, 41:11, 41:17, 43:4, 44:1, 44:18, 52:6, 55:5, 65:13, 69:3, 70:15, 73:7, 76:7, 82:9, 82:12, 83:11, 86:8, 86:15 draft 91:9 drank 43:15 drawback 45:22 drop 11:11, 12:1, 14:6, 15:22 drug 6:8 due 34:2 duly 7:3, 92:7 duration 85:6 during 41:13, 52:2, 90:13 E each 45:7, 58:14, 59:7, 66:7, 89:4 early 33:22, 37:17 easier 11:7, 12:5, 14:9, 16:3 eccentric 56:16 edge 52:1, 53:9, 53:10, 53:18,	53:19, 54:11, 54:15 edition 82:1 effect 22:22, 33:20, 40:6, 40:13, 56:20, 63:12, 63:16, 63:17, 65:1, 79:2, 88:6 effects 23:7, 32:14, 39:3 efficient 9:13 eight 81:8, 81:14 ekenseair 1:22, 2:11, 92:3, 93:9 elastically 48:20, 49:1 elastin 48:22 electric 21:19, 22:3, 69:14 electrical 5:8, 68:22, 79:16 electro 85:17 electrode 23:4, 24:3, 29:4, 34:4, 45:4, 49:7, 55:14, 55:19, 55:21, 56:9, 56:10, 57:10, 57:16, 57:22, 58:3, 58:4, 58:8, 58:15, 58:21, 58:22, 59:1, 59:22, 61:5, 63:20, 64:4, 64:5, 66:6, 66:8, 66:17, 66:18,
---	--	---	--

71:18, 78:15, 78:16, 78:18, 83:9, 85:14 electrodes 24:4, 38:21, 45:3, 54:17, 55:18, 57:19, 58:10, 58:19, 59:16, 61:4, 65:1, 65:3, 66:11, 66:19, 68:22, 69:7, 73:19, 84:5 electrosurgical 80:12, 88:12 ellipses 25:2, 27:14 else 7:22, 18:8, 55:18, 57:18, 70:10 embodiment 21:14, 21:17, 22:1, 22:2 emphasis 74:3 employed 92:20 empty 41:8 end 13:17, 24:19, 34:13 endorsed 25:19 energy 20:5, 21:18, 22:2, 24:5, 28:17, 28:22, 32:9, 35:3, 35:5, 39:5, 45:16, 58:22, 59:1, 59:10, 59:15, 59:18, 60:1, 60:11, 60:14, 60:16, 60:17, 60:22, 61:2, 61:8,	61:12, 61:14, 61:15, 61:17, 61:19, 62:1, 62:4, 63:2, 63:4, 63:6, 63:10, 63:22, 64:3, 64:6, 64:13, 64:15, 64:19, 69:5, 81:2, 84:8, 84:20, 84:22, 87:15, 89:2, 89:3 enough 30:2 entitled 82:19 epidermal 34:14, 35:1, 35:10 epidermis 13:6, 40:15 equal 62:1 equipment 5:8, 75:11, 77:21, 78:1, 79:4, 79:5, 79:11 esquire 3:3, 3:4, 3:5, 3:13 et 23:22, 27:19, 28:15 etcetera 71:20 evaluated 79:17 evaluation 88:15 even 8:14, 30:5, 46:8, 46:21, 63:18, 64:9, 64:21, 79:18 every 85:21	everybody 53:14, 54:9 everything 14:18 evidence 19:6, 75:4 evidentiary 9:6, 18:20, 19:5 ex-vivo 88:10 exactly 32:1, 39:17, 67:22, 77:2, 78:9 examination 4:7, 4:8, 7:6, 86:13 example 41:7, 65:2, 65:6, 65:9, 65:15, 65:16, 65:17, 65:18, 65:22, 78:3 examples 65:5 exceeding 78:2 excellent 9:16 except 33:11 excerpts 6:7 exclusive 47:6 excuse 45:13 exemplary 21:14 exempt 78:4 exemption 78:6 exemptions 78:8 exercise 83:19	exhibit 4:15, 4:17, 4:19, 4:21, 5:4, 5:6, 5:10, 5:15, 5:20, 6:4, 6:6, 6:8, 10:4, 10:5, 10:17, 10:18, 10:19, 12:1, 12:13, 14:3, 14:16, 15:4, 15:22, 16:15, 20:8, 20:17, 20:19, 23:18, 26:1, 26:3, 27:18, 35:12, 35:15, 35:18, 37:5, 38:5, 38:9, 42:7, 42:8, 45:9, 45:10, 51:9, 55:12, 68:6, 68:7, 68:11, 75:16, 75:18, 75:19, 75:20, 76:13, 76:17, 79:7, 80:4, 83:17, 83:21, 83:22, 89:19 exhibits 4:12, 5:1, 6:1, 12:4, 15:4, 15:14, 15:15, 16:9 existed 17:18 existing 40:13 expect 48:12 experience 34:8, 49:5, 68:3 experienced 34:6 expert 5:20, 18:17, 33:16, 35:13, 35:14, 35:19,
--	--	--	--

36:5, 38:6, 67:12, 80:1 expertise 73:2 expires 93:6 explain 37:20, 38:1, 40:12, 45:2, 45:4, 45:5, 52:7, 86:22 explained 31:8, 49:22, 90:13, 90:18 explaining 69:21, 72:10 explains 52:6, 72:16, 73:3 explanation 39:18, 67:5 explicitly 31:7 extend 47:13, 51:17, 54:14 extending 54:18 extent 24:17, 40:2, 63:7 extra 64:13 extremely 52:20 eyal 3:20 eye 53:2	familiar 20:22 family 87:10 fashion 45:6, 83:8 fast 21:8 fatigue 23:8 favor 25:2 fda 30:9, 48:1, 53:6, 54:7, 79:18, 80:8, 83:1, 86:20, 87:11 feel 14:6, 16:11, 70:21 few 21:7, 22:16, 23:5, 41:3, 71:7 fibers 48:13, 48:22, 52:12 field 33:17, 34:9, 87:12 figure 32:6, 32:8, 32:12, 32:19, 33:5, 33:10, 34:13, 55:11, 55:14, 55:17, 65:10, 65:14 figures 65:21 file 11:6, 11:8, 81:8, 81:12 filed 9:18, 15:5, 17:16 filing 23:22 filkovwky 3:20	financially 92:22 find 22:11, 60:4, 60:9, 63:13, 71:9 fine 16:13, 36:1, 36:6 first 7:3, 8:19, 12:12, 19:18, 20:1, 21:12, 23:21, 33:20, 59:6, 74:19, 75:9, 76:5, 76:13, 76:17, 87:12 fit 62:15 five 47:12 fluid 64:12, 64:13, 64:14, 64:17 focus 19:16, 26:10, 55:11, 68:10, 84:20 focused 70:21 focuses 84:4 focusing 65:17 follow 30:10 following 88:11 follows 7:5 food 6:8 forgot 62:21 form 19:10, 22:4, 28:18, 33:22,	41:5, 41:20, 43:6, 44:22, 50:5, 51:6, 59:13, 64:8, 65:4, 66:5, 67:2, 70:2 forming 24:3 forth 92:7 forward 12:3, 23:19, 75:8, 81:4 found 67:4 four 28:11 fractional 5:13, 32:15, 37:21, 38:1, 41:1, 41:7 fraxel 46:1 free 14:7, 16:11, 70:21 frequency 20:4, 69:15, 69:17, 71:19, 73:20, 75:11, 79:4, 79:10, 83:5, 88:17 frequently 76:22 front 10:6, 80:7 full 14:14 fully 14:18, 25:19, 39:7 function 30:4 functional 30:6 functionally 30:3 further 53:21, 86:9,
F			
fact 28:15 factors 17:10, 17:14 failure 18:6, 18:13, 19:8			

91:5, 92:11, 92:14, 92:18	getting 44:12	ground 9:14	30:1, 88:18
G	give 21:5, 21:7, 58:5, 60:3, 71:7	grounding 78:16, 78:17, 79:2	heat 23:16, 30:3, 31:2, 48:20, 71:19, 73:20, 85:8, 85:15, 85:18, 86:2, 86:5, 86:6
galvanized 87:4, 88:9	given 92:10	grow 48:22	heating 29:3
ganz 4:17, 45:8, 45:12, 45:14, 45:18, 45:22, 46:6, 46:14, 46:19, 47:3, 47:12, 47:16, 49:11, 50:3, 50:10, 50:22, 51:12, 51:16, 51:22, 53:17, 54:13, 54:17, 55:1, 55:4, 55:10, 55:11, 55:14, 56:3, 57:2, 57:4, 57:18, 58:13, 59:5, 59:10, 60:11, 62:3, 62:18, 63:1, 65:2, 66:20, 67:13, 71:17, 72:19, 73:18, 85:14	gives 58:6, 58:7, 58:10, 62:8, 62:10, 62:11, 65:5, 65:16, 80:18	guess 67:5	held 6:6
ganz's 51:4, 85:7	go 11:4, 12:19, 13:4, 13:9, 13:13, 14:2, 14:5, 14:21, 15:20, 22:12, 23:18, 25:4, 26:17, 27:18, 28:2, 35:13, 36:15, 38:7, 42:9, 43:20, 47:8, 56:7, 62:2, 64:15, 71:21, 74:10, 75:8, 76:16, 78:20, 79:6, 80:15, 80:20, 81:4, 83:21, 86:11	guidance 30:9, 88:11	helpful 70:15
gap 64:10	goes 20:8, 64:13, 64:14, 64:16	H	here 7:11, 11:2, 11:14, 11:20, 12:8, 12:12, 12:14, 16:1, 16:6, 22:7, 26:15, 28:19, 28:21, 31:22, 32:3, 42:11, 52:3, 52:7, 53:17, 54:11, 57:13, 61:15, 62:2, 68:16, 70:9, 75:22, 76:6, 76:10, 76:11, 81:16, 82:17
gapping 64:11	going 9:12, 10:7, 12:3, 37:1, 54:9, 63:8, 64:12	h-u-a 8:4	hereby 92:5
general 88:13	gone 35:10	h-u-a-n-g 8:5	herein 47:17
generally 38:19	good 7:8, 7:9, 16:11, 23:2, 85:16, 90:14	hair 52:22	hereinbefore 92:6
generate 30:2, 71:19, 73:20, 85:18	great 13:16, 88:4	hand 35:21, 36:7, 93:3	hereunto 93:3
generating 31:1, 85:7		hantash 4:21, 84:1, 84:4, 84:7, 84:21, 85:13	hertz 69:15
generator 23:2		hantash's 85:6	hf 77:21, 78:1
georgia 2:13		happened 77:2	high 63:18, 75:11, 79:4, 79:10, 83:5, 87:13, 87:14
		happens 63:5, 63:7, 63:8, 63:22, 64:11	
		happy 25:8, 42:5, 42:6, 80:2	
		healing 46:9	
		healthy 41:9	
		hearing 6:6, 9:6, 18:20, 19:6, 42:19	
		heart 25:4, 25:9, 29:19, 29:21,	

histology 31:22, 32:2, 32:8, 32:13, 50:15 history 15:4 hold 26:11, 33:10, 36:10 holds 49:16 hole 29:21, 29:22, 47:5, 47:6, 48:8, 48:13, 48:15, 48:16, 49:2, 49:8, 52:16, 52:19, 52:20, 53:21, 56:18 holes 46:2, 46:8, 46:21, 47:4, 47:13, 48:9, 49:12, 49:17, 50:4, 50:6, 50:11, 50:12, 52:14 hopefully 12:11 hruza 5:10, 23:22, 25:22, 27:19, 28:15 hua 3:5, 8:3, 8:4 huge 35:17 human 24:1, 53:1, 53:2 hundreds 85:20 hypothesized 28:9	idea 33:16 identification 10:5, 10:19, 16:15, 20:19, 26:3, 35:18, 42:8, 45:10, 68:7, 75:20, 80:5, 83:22 iec 5:7, 75:11, 76:18, 76:22, 77:8, 79:17 iec-2-2 82:1 ignore 29:13, 49:4 illinois 2:13, 3:9 image 11:8, 12:6, 33:15 images 50:15 immediately 32:15 impact 20:3 imparting 56:5 imparts 56:3 impedence 63:9 important 8:11, 63:14, 64:1 improperly 85:22 improves 39:11 in-person 8:13 inc 1:4 include 60:16 includes 32:19	including 20:15 incorrectly 78:16, 80:1 increase 63:11 increases 63:10 indeed 75:10, 79:6 indicated 78:7 indicia 17:22, 18:10 indirectly 57:20, 58:1 inform 32:2 initial 67:20, 68:2 inserted 23:13, 25:13, 25:15 inserting 84:12 insertion 84:19 inserts 84:11 inside 53:21 instance 61:10 integral 61:19, 62:1 intend 50:1, 86:7 intent 85:10, 86:3 inter 5:18, 7:13, 9:17, 15:5 interchangeably 47:4 interested 82:17, 82:18, 92:22 interesting 53:4, 54:3,	87:8, 88:2 international 4:19, 4:21, 5:6, 75:10, 79:9 interpretation 67:20 introduction 27:19, 28:1, 28:6 invention 17:19, 39:10 inventors 11:2 investigation 9:3, 18:16, 18:21, 35:15, 42:22 involve 41:18, 42:22, 43:4, 43:9, 43:10, 44:3, 44:10, 48:2, 50:22, 51:5 involves 40:9, 65:18 involving 7:13 ions 88:1 ipr 1:10, 10:10, 37:4 issue 41:9, 54:3 issued 50:17 issues 8:20, 9:2, 9:7, 9:12 itc 9:2, 9:6, 18:15, 18:21, 19:6, 29:10, 35:14, 52:9, 67:12 ithocator 78:14 itself 11:7, 25:5,
I			
icon 11:16			

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

105

30:8, 45:7, 55:10, 68:10	33:7, 33:14, 34:9, 36:3, 36:22, 42:2, 42:14, 43:7, 46:12, 48:1, 48:10, 48:15, 48:18, 49:2, 50:12, 52:6, 52:7, 53:20, 54:22, 55:3, 56:6, 56:10, 58:4, 58:8, 60:5, 60:8, 61:21, 62:14, 63:8, 64:10, 65:12, 65:14, 65:21, 67:16, 67:18, 68:2, 70:13, 71:2, 71:3, 76:7, 76:21, 77:2, 78:9, 79:20, 79:21, 81:15, 88:3	71:22, 72:1, 88:7 late 37:17 later 9:22, 22:12, 58:17, 60:18, 73:22, 76:4 latham 3:14 law 16:21, 17:3, 17:7, 61:18 lawful 7:3 lawyers 25:16 layer 13:6, 35:10 layers 33:11, 33:17, 47:14, 54:20 leading 29:5 leak 87:22 least 57:22, 58:18, 62:21, 70:18 leaves 41:8, 58:9 left-hand 13:14, 28:2, 28:7 length 73:4 leo 8:2, 8:3 leonard 3:5 lesion 41:8, 86:5, 86:6 less 52:18, 52:22, 64:2 let's 10:3, 10:16,	11:4, 12:19, 15:20, 19:12, 20:17, 23:18, 25:22, 26:4, 32:5, 42:17, 43:20, 45:8, 51:8, 55:10, 56:12, 57:1, 61:11, 62:2, 68:5, 68:10, 70:4, 74:10, 75:18, 77:13, 80:3, 80:15, 83:21 letter 6:8, 80:9, 80:11, 87:5 letters 76:19 level 17:15, 35:5, 58:21, 59:10, 69:6, 87:14, 89:2 leydig 3:6, 7:20 likely 35:9 likes 90:1 limit 58:5 limited 60:17 limiting 40:20 line 12:20, 13:4, 13:10, 13:16, 42:20, 71:21, 71:22, 72:1 lines 13:18, 24:10, 27:2, 28:11, 46:17, 47:12, 51:11 list 15:4, 15:10,
J			
james 3:4 jean 1:14, 2:1, 4:6, 5:16, 5:20, 7:2, 92:5, 92:15 jeisys 1:4, 25:16 job 1:20 joule 35:2, 59:19, 60:20, 61:12, 62:7 joules 35:6, 35:10 june 6:9, 80:9			
K			
k 80:8, 80:17, 80:18 karisa 1:22, 2:10, 92:3, 93:9 keep 9:13, 52:16 kill 87:18 kind 29:22, 53:6, 88:3, 88:21 kindly 11:22 know 8:17, 11:13, 12:6, 12:16, 16:7, 16:8, 25:4, 25:9, 25:12, 25:15, 25:18, 25:19, 26:12, 30:19, 30:21, 31:22,	knowledge 79:22 known 20:3, 88:21	L	
	labeled 26:21, 36:3, 86:16 language 22:8, 22:11, 43:11 languages 49:18 large 35:20 larger 49:8, 52:14, 52:19, 58:1, 58:6, 58:19, 59:2 laser 46:1, 56:7 last 8:3, 62:17,		

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

106

78:8 listed 15:4, 15:14, 17:14 listened 41:13 lists 17:10 little 11:16, 22:8, 23:6, 31:3, 53:8, 86:15 livneh 4:19, 68:6, 68:10, 68:11, 68:15, 68:20, 69:5, 69:12, 69:21, 70:18, 70:21, 71:5, 71:14, 72:10, 73:12, 73:17 livneh's 72:6, 74:8 llc 1:7 llp 3:14 load 11:12 local 85:21 located 40:15 location 23:14 long 36:13, 49:17, 61:3, 61:5, 83:2 long-felt 18:5, 18:12, 19:8 longer 60:9 look 10:3, 10:16, 11:10, 20:17, 25:8, 25:10, 25:22, 30:9,	32:5, 32:18, 33:9, 42:17, 46:13, 51:8, 57:1, 57:20, 60:8, 60:10, 70:22, 71:12, 75:18, 76:1, 80:3, 81:21, 88:7, 91:13 looked 25:5, 31:22, 41:3, 60:5, 67:3 looking 32:2, 60:3, 76:13, 76:17, 77:10 looks 56:8 lot 43:16, 85:11 low 31:2, 62:6, 62:22, 71:21, 81:1, 83:4, 88:17 lower 62:3, 62:7, 62:11, 64:1 ls 93:9 M magnitude 62:6, 62:10 make 23:12, 29:21, 44:11, 45:13, 45:14, 48:16, 49:8, 49:9, 50:20, 52:16, 54:13, 55:2, 62:16, 66:9, 82:4, 83:15, 90:15 makes 41:7, 48:18 manstein 5:4, 20:21,	21:10, 21:13, 21:17, 21:22, 86:18, 89:19, 90:2, 90:3, 90:21 many 22:22, 31:6, 33:15, 58:19, 75:6 marked 10:5, 10:19, 16:15, 20:19, 26:3, 35:18, 42:8, 45:10, 68:7, 75:20, 80:4, 83:22 markings 16:4 marriage 92:20 massachusetts 3:16 materials 15:6, 15:10 math 62:2 matrix 28:12, 28:16, 28:21, 29:8, 39:20, 64:16 matter 33:13, 63:14, 93:1 maximum 58:8, 58:10, 63:14 maybe 58:4, 70:15, 70:20 mayer 3:6 mean 14:10, 33:9, 46:10, 47:22, 49:21, 52:6, 55:1, 58:5, 62:13, 66:17, 70:4, 75:21,	78:12, 82:3, 88:22, 89:5 meaning 50:8 means 22:10, 32:1, 32:3, 39:18, 47:6, 47:18, 50:13, 66:4, 66:15, 87:20, 88:20 meant 67:6, 67:11, 67:17, 67:22, 68:4, 90:9 measure 53:5, 53:9, 53:15, 53:16, 53:22, 54:9, 54:10 measures 52:3, 53:3, 53:17 measuring 54:11 mechanical 56:12, 56:18, 56:22, 84:19 mechanically 45:15 medical 1:4, 5:7, 79:4 megahertz 24:5 membrane 87:21, 87:22 mention 30:13, 49:14, 49:15, 49:20, 50:7, 60:2, 66:10, 66:11, 66:12, 69:8, 84:10 mentioned 8:11, 22:16, 43:8, 49:17, 51:2, 52:21, 58:1, 66:6,
---	---	--	--

66:10, 68:16, 72:13, 74:11, 80:1 mentioning 57:13, 59:18, 70:5 mentions 49:14, 49:16, 59:14 merely 56:4 merit 2:15 message 11:21 method 13:1, 13:5 mexico 2:13 micro 78:3 micron 52:22 microneedles 19:20, 20:4 microneedling 37:16 middle 14:11, 33:9, 33:10, 56:18, 88:8 might 91:13 milliseconds 61:13 mind 82:7 minimum 22:22, 58:7, 62:4, 63:13 minus 62:9 misleading 29:12, 89:11 missouri 2:12 mixed 89:18	modalities 85:11 mode 63:18 moment 25:10 moments 41:4, 71:7 mono 66:17 mono-bipolar 66:10 monophasic 88:15 monopolar 44:20, 45:5, 45:7, 65:18, 65:22, 66:9, 78:14, 78:22, 83:8, 88:19 months 25:7 more 8:14, 16:12, 39:5, 46:9, 46:22, 47:14, 54:20, 58:9, 58:22, 59:22, 60:1, 63:12, 63:17, 67:19, 71:7, 80:2, 86:6 morning 7:8, 7:9 most 23:1, 31:8, 35:8, 35:9, 41:15, 42:3, 64:1, 85:19 motion 83:15 motivated 71:14, 73:17, 85:6 motivation 70:9, 70:11, 71:11, 72:14 move 19:12, 68:5,	83:15 moving 63:21 much 11:7, 12:5, 12:7, 21:6, 40:4, 64:2, 78:11, 85:8, 85:15, 85:19, 86:2, 86:5 mueller 3:3, 4:8, 8:2, 19:10, 22:4, 25:17, 28:18, 35:19, 36:2, 41:5, 41:20, 43:6, 44:22, 50:5, 51:6, 59:13, 64:8, 65:4, 66:5, 67:2, 70:2, 82:14, 86:10, 86:14, 91:4, 91:8, 91:10, 91:16 multiple 24:5, 72:15 myocardium 29:19 myself 43:17, 73:15 N na 19:1 name 8:3, 11:1, 80:12, 80:22, 81:1 nano-knife 83:4, 87:13, 88:16 national 2:14, 2:15 necrosis 24:17, 27:15, 29:15, 30:12, 30:20, 32:14,	33:2, 44:8, 47:20, 47:22, 48:2, 48:5 necrotic 33:2 need 42:9, 42:12, 43:17, 45:18, 86:6, 91:12 needed 38:5 needle 45:2, 45:5, 45:7, 48:10, 48:12, 48:19, 52:9, 52:15, 56:16, 66:3, 66:4, 66:6, 66:21, 66:22, 67:14, 84:11, 84:12 needles 40:15, 44:20, 84:9, 84:19 needs 18:6, 18:13, 19:8 negative 22:22, 23:7, 88:4, 89:1 negatively 24:4 nerve 22:14, 22:17, 22:20, 23:3, 23:8, 23:12, 23:13, 90:5, 90:10, 90:22 neurostimulator 90:16 neutral 78:15, 78:17, 83:8 never 30:18 new 2:13, 87:9, 87:10, 87:11
--	---	--	---

next 19:13, 20:1, 24:9, 28:6, 29:2, 37:19, 43:2, 75:8, 77:6 nice 7:10 non 53:20, 79:21 none 79:2, 79:19 nonobviousness 17:22, 18:1, 18:10, 18:11, 18:17 nonresponsive 83:16 normal 53:1 north 3:8 notarial 93:4 notary 2:16, 92:1, 92:4, 93:10 notebook 35:20 notes 60:7 nothing 63:21, 63:22, 89:13 notice 2:10 notification 88:12 nowhere 18:8, 49:19, 49:21, 49:22 number 4:3, 4:14, 5:3, 6:3, 6:4, 10:17, 14:22, 36:4, 62:9, 62:11, 62:14, 80:18, 89:2, 90:17 O oath 9:1, 9:5, 9:11	objection 19:10, 22:4, 25:17, 28:18, 41:5, 41:20, 43:6, 44:22, 50:5, 51:6, 59:13, 64:8, 65:4, 66:5, 67:2, 70:2 objective 17:22, 18:10 obtain 59:11 obtained 40:7, 65:22 obvious 17:12, 90:19 obviously 25:6, 25:20, 29:21, 40:1, 59:22, 83:20, 84:11 obviousness 17:8 occur 39:4 occurred 92:15 october 1:15, 92:16, 93:5 offer 74:9 offers 73:7 office 1:1, 7:20, 7:22 often 53:5, 64:12 oh 11:20, 21:5, 60:12, 62:19, 86:21, 90:7 okay 11:20, 12:2, 12:10, 12:13, 12:19, 16:1, 16:2, 16:4, 16:11, 16:13, 21:4, 21:8, 26:4, 26:5, 26:15, 35:16, 36:20, 37:6, 38:14, 42:17, 45:12, 47:10, 55:7, 55:13, 57:3, 62:20, 68:9, 68:19, 71:10, 74:15, 74:16, 74:19, 75:18, 76:11, 80:6, 80:7, 81:6, 82:7, 84:16, 89:15, 90:17, 91:3, 91:5 oklahoma 2:12 old 78:11, 87:10 once 12:12 one 8:12, 8:15, 10:13, 11:1, 12:12, 16:8, 17:10, 20:20, 21:14, 22:1, 28:5, 40:6, 41:7, 41:8, 45:22, 47:7, 47:14, 50:18, 54:1, 54:20, 60:20, 62:6, 62:11, 65:5, 65:8, 65:9, 65:16, 66:18, 67:4, 72:1, 81:7, 87:12, 89:6, 89:18 only 8:15, 16:6, 23:11, 34:8, 37:1, 39:18, 46:3, 52:10, 56:14, 56:19, 58:20, 61:13, 67:5, 72:17, 73:5, 78:21, 89:10, 90:16, 90:22 open 11:17, 12:8, 21:7, 21:8, 26:16, 58:9, 71:15, 74:4, 80:7 opened 76:11 opening 35:14 operating 69:16 ophthalmology 78:4 opinion 66:3, 73:8 opposed 39:12, 72:3, 74:4 opposite 13:13 orally 83:15 order 52:21, 55:2, 62:5, 62:10, 85:7 orders 91:7 ordinary 17:15, 85:5 original 53:16, 83:4 originating 51:18 other 8:6, 8:8, 9:15, 12:3, 12:14, 15:6, 22:16, 38:21, 39:3, 45:5, 47:7, 50:19, 57:16, 66:1, 70:1,
---	---

72:11, 72:16, 72:20 others 18:6, 18:13, 19:9 otherwise 92:22 out 11:9, 17:10, 63:13 outcome 93:1 output 78:2, 79:3 outputting 21:18, 22:3 outside 56:10 outwardly 54:18 over 8:12, 8:14, 27:11, 61:19, 67:18, 76:16, 82:15, 89:6 overheating 40:14, 40:20 overlying 13:6 own 11:12, 14:14, 15:13 owner 1:8, 3:12, 92:12	32:6, 37:8, 37:9, 37:12, 38:9, 42:18, 42:19, 43:2, 68:12, 70:11, 71:12, 71:13, 74:11, 74:13, 74:15, 75:16, 76:5, 76:13, 76:17, 76:19, 77:13, 77:14, 80:15, 80:20, 80:21, 81:4, 81:6, 81:8, 81:12, 81:14, 88:7, 88:8 pages 1:21 panel 11:18 papers 48:21, 85:17 paragraph 14:5, 14:11, 14:21, 16:17, 17:2, 17:10, 19:16, 19:18, 20:2, 20:7, 21:10, 21:13, 21:16, 22:15, 23:19, 24:10, 27:5, 37:13, 37:15, 37:19, 37:20, 38:13, 41:3, 46:14, 46:15, 47:9, 47:11, 47:16, 51:8, 51:12, 51:15, 54:22, 55:4, 55:8, 57:12, 57:21, 58:12, 59:5, 60:10, 60:11, 62:18, 65:6, 65:17, 66:1, 68:12, 68:14, 68:16, 68:20, 69:11, 69:12,	70:4, 70:5, 70:7, 70:13, 71:3, 71:12, 71:13, 72:13, 73:16, 74:13, 74:15, 74:16, 74:19, 75:3, 75:4, 75:9, 77:10, 77:20, 79:6, 88:8 paragraphs 14:15, 14:19, 15:1, 15:7, 15:11, 15:20, 16:19, 16:20, 16:21, 17:6, 17:21, 18:4, 18:8, 38:8, 57:1, 57:4, 57:9, 57:15, 57:17, 70:18, 70:19, 70:20, 70:22, 71:13, 72:16 paralegal 91:11 parallel 24:2 parameters 65:9, 65:16 parentheses 71:16, 74:4, 74:5 part 23:9, 34:12, 34:16, 34:22, 46:14, 90:5, 90:21 partes 5:18, 7:13, 9:17, 15:5 particle 89:2 particular 78:5, 89:19 parties 92:19, 92:21 parting 54:19	party 92:11 passing 63:10 patent 1:1, 1:2, 1:8, 1:11, 3:12, 4:17, 5:4, 5:19, 6:4, 7:14, 8:21, 9:2, 9:7, 9:12, 9:18, 10:10, 10:13, 10:16, 10:20, 13:1, 13:5, 13:9, 15:3, 15:6, 19:20, 20:9, 20:13, 22:10, 30:13, 38:10, 38:19, 39:2, 39:6, 39:10, 40:12, 40:19, 41:1, 41:6, 41:12, 41:18, 42:21, 43:4, 44:3, 50:16, 50:17, 84:14, 86:4, 92:12 patents 10:13, 20:13, 23:22 pathologist 33:15, 34:7 pathology 65:7, 65:11 patient's 13:2 pc 84:15 pdf 11:5, 12:20, 42:18, 81:8, 81:12 pedal 31:19 pedals 31:14 pending 82:9, 82:12
P			
pad 79:2 page 4:2, 4:14, 5:3, 6:3, 11:4, 12:20, 14:5, 14:10, 14:22, 16:18, 22:15, 24:9, 26:1, 26:19, 27:20, 27:22, 28:6,			

people 29:14, 29:17, 31:10, 31:11, 49:4, 53:15, 53:16, 54:5, 67:7, 78:16 percent 53:13 perfect 14:12, 16:19 perforate 84:9 perforation 47:6, 47:18, 48:9, 48:11, 49:15, 49:16, 51:18, 52:1, 53:19, 54:15, 56:12, 56:22, 58:2, 58:6, 58:15, 58:18, 58:20, 59:2, 59:3, 59:8, 59:12, 84:10, 84:12 perforations 45:19, 46:2, 46:7, 46:20, 47:3, 47:12, 49:11, 50:4, 50:10, 50:21, 51:4, 54:19, 55:21, 56:1, 56:4, 57:5, 57:6, 57:11, 57:21, 84:8, 84:22 performance 88:10, 88:14 performed 13:5, 88:9 permanent 40:16 person 23:15, 72:18, 85:4, 85:12 personal 44:6	petition 5:17, 15:5 petitioner 1:5, 3:2 ph 4:16 phase 89:1 phd 1:14, 2:1, 4:6, 7:2, 92:5, 92:15 phone 61:1 physical 48:3 physically 56:20 physics 61:18 pick 8:15 pin 58:15, 66:18 pins 24:3, 29:4, 55:14, 55:19, 55:21 places 22:16 played 30:21 plaza 3:7 plurality 54:17 plus 16:8, 62:9 point 64:5, 69:20, 73:10, 85:16, 86:11 points 72:9 polarities 45:3 polarization 23:4 poles 66:4, 66:22,	67:14 poor 50:16 portion 68:20 posita 71:13, 71:17, 72:1, 73:16, 73:18, 74:2, 74:20 position 44:2, 49:10 positive 88:22 positively 24:4 possible 41:22, 50:14, 50:17, 50:21, 51:1 possibly 88:17 power 20:3, 20:14, 59:18, 60:21, 61:9, 61:10, 61:15, 61:17, 61:19, 61:22, 68:21, 69:6, 69:9, 69:13, 69:14, 70:1, 70:6, 71:5, 71:14, 72:7, 72:12, 73:17, 74:8, 74:9, 78:2 practice 90:14 predetermined 61:14 predicate 83:6, 88:6, 88:16 predictable 64:2, 64:21 preferably 69:13 premarket 88:11	preparations 45:15 prepared 37:1 present 3:19 presented 19:6 pretty 21:8, 55:1, 71:3 preventing 40:20 previews 11:20 previously 65:13 primarily 39:11 print 11:9 print-out 16:1, 16:5 printed 45:11, 76:19 printout 68:8 prior 17:17, 17:19, 45:22 priority 19:19 probably 27:10, 29:10 problem 27:13 proceeding 7:13, 9:18, 10:10 proceedings 91:17 process 31:5, 83:5 professional 2:15 programmed 87:20 prohibits 75:12, 79:11
--	---	--	---

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

111

prompts 46:8, 46:21 proper 23:14 properly 31:22 proportion 24:16 propounded 7:4 prosecution 15:3 provide 22:13, 29:20, 37:21, 58:15, 73:17, 83:18 provided 23:1 provides 62:3, 69:6, 71:15, 71:16 providing 71:18, 73:19 prudential 3:7 public 2:16, 37:2, 92:1, 92:4, 93:10 publication 4:18, 5:5 published 85:17 pulaski 93:11 pulse 23:1, 85:6 pulses 22:21, 23:5, 83:7, 90:12, 90:18 purpose 83:19 pursuant 2:10 put 10:7, 12:13, 16:6, 21:1,	38:6, 48:10, 52:9, 78:10 puzzled 87:8 Q quality 50:16 question 25:21, 34:16, 43:1, 53:4, 54:4, 70:21, 72:8, 82:3, 82:9, 82:12, 82:13, 82:17, 83:12, 84:21, 87:8 questions 7:4, 82:18, 83:18, 86:9, 91:5 quote 24:2, 24:6, 24:15, 24:19, 31:7, 47:17, 47:18, 51:16, 51:19 quoted 27:5, 27:7, 69:13 R r-e-d-a-c-t-i-o-n 44:14 r-e-s-e-c-t-i-o-n 44:16 radio 20:4, 69:15, 69:16, 71:19, 73:20 radiofrequency 5:13 range 58:11, 63:2 rated 78:2 rather 45:15, 56:4,	68:9 react 87:11 read 11:7, 15:2, 15:11, 22:9, 26:2, 30:18, 34:1, 34:7, 41:14, 78:21, 89:10, 89:12 reader 73:1 reading 31:9, 67:18, 71:4 ready 12:16, 12:18, 26:12, 42:14, 76:7 really 31:13, 33:12, 50:13, 59:15, 63:9, 64:19, 68:4 reason 7:16, 7:18, 29:13, 78:10, 83:3, 85:11 reasons 77:1 recall 10:15, 18:15, 41:17, 86:17, 89:20 recently 79:18 recites 13:1, 13:5 recognize 10:20, 27:4 recommended 22:20 record 37:2, 37:4, 43:20, 86:11, 92:10 redaction 44:13	redactions 36:22 reduced 40:1 reduction 5:12, 53:13 refer 10:13, 16:11, 31:10, 34:6, 37:15, 67:13, 73:22, 83:10 reference 17:22, 18:5, 20:21, 25:22, 27:19, 28:12, 45:8, 57:16, 67:4, 68:5, 68:6, 68:15, 84:1 referenced 15:7, 77:9 referred 20:14 referring 13:21, 58:12, 66:21, 70:20, 74:8, 84:18, 87:9 refers 13:17, 21:13, 21:17, 21:22, 34:22, 59:5 regarding 89:22 registered 2:14, 2:15 regular 40:7 regulation 80:12 reinforce 73:2 rejuvenation 5:11 relate 30:19, 79:1 related 65:15, 92:18
---	--	---	--

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

112

relating 8:20, 9:2, 9:7, 9:12	39:16, 48:14, 49:21, 50:15, 64:4, 64:9	34:10, 35:7, 40:8, 44:9, 44:10, 44:15, 49:8, 50:8, 63:18, 78:13	30:11, 30:18, 30:19, 31:10, 31:14, 31:19, 32:9, 37:15, 41:1, 43:10, 43:11, 44:7, 48:5, 48:17, 50:7, 50:8, 60:17, 69:15, 69:22, 70:3, 72:11, 73:13, 84:5, 84:7, 84:22, 90:9
relationship 58:2	removing 30:7, 30:14, 56:19	resistance 63:10	right 8:21, 9:3, 9:8, 9:20, 10:10, 11:18, 13:2, 13:7, 14:16, 15:13, 15:16, 16:22, 17:8, 17:12, 18:2, 18:13, 18:18, 18:21, 19:9, 19:21, 20:15, 21:19, 26:21, 28:5, 28:17, 28:22, 29:6, 29:9, 32:3, 32:10, 33:6, 35:1, 35:6, 37:17, 37:21, 38:3, 38:22, 39:5, 39:13, 40:10, 40:16, 40:20, 44:11, 44:12, 44:21, 45:16, 45:20, 46:4, 46:9, 47:1, 47:4, 51:20, 52:2, 54:15, 54:20, 55:15, 56:1, 56:5, 57:7, 57:11, 60:14, 60:17, 61:4, 63:6, 64:7, 65:3, 65:19, 66:1, 66:4,
relative 24:16	repeat 44:5, 73:15	resolve 47:8	
released 77:4	repeats 67:8	response 46:9, 46:22	
relevant 78:7	reply 7:4	rest 22:9, 69:19	
relieve 43:17	report 5:20, 15:14, 16:10, 25:6, 25:18, 29:11, 35:13, 35:14, 35:20, 36:5, 38:6, 41:3, 45:1, 52:9, 54:6, 67:12, 68:1, 73:4	result 34:3, 45:16, 63:6	
remain 61:4	reported 1:22	resulting 53:18	
remains 39:21, 61:6	reporter 2:11, 2:15, 2:16, 4:10, 91:6, 92:1, 92:3	results 29:3	
remember 29:10, 30:13, 41:15, 42:3, 54:21, 65:11, 86:18	reports 18:18	resurfacing 29:5	
reminder 8:10	represented 92:12	retract 52:12, 62:19	
remote 3:20, 21:3, 36:11, 91:14	request 43:15	retreading 9:13	
remotely 1:13, 8:7	required 59:11, 60:22, 79:3	return 55:10	
removal 13:18, 13:22, 30:6, 30:14, 30:21, 34:10, 34:15, 35:1, 40:10, 43:9, 47:21, 48:3, 50:22, 51:5, 52:13	requirements 78:5, 78:7	revert 61:9	
remove 29:18, 30:3, 31:1, 31:4, 39:19, 39:20, 39:22, 48:11, 48:16, 48:19, 87:15, 87:17	requires 53:6	review 5:18, 7:13, 9:17, 15:5, 41:11, 80:2	
removed 25:1, 25:8, 27:14, 33:6,	resect 43:13, 50:1, 63:21, 64:22	reviewed 25:6, 71:6	
	resected 63:19	reviewing 41:15	
	resection 31:12, 34:3,	rf 20:4, 20:15, 21:13, 22:1, 24:2, 24:5, 24:11, 24:14, 28:12, 28:16, 28:17, 28:21, 28:22, 29:8, 29:12, 29:14, 29:17, 30:4,	

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

113

67:1, 67:15, 68:15, 69:1, 69:7, 69:17, 70:1, 75:1, 75:5, 75:13, 75:16, 76:20, 77:11, 79:11, 79:18, 82:1, 84:2, 84:5 right-hand 46:15 rmr 1:22 role 30:22 room 8:7, 21:5, 26:4, 42:11 rough 91:9, 91:12 row 81:21 rows 24:2 rpr 1:22, 93:9 rushed 91:12	89:1, 89:2, 89:3 sanders 3:13, 4:7, 7:7, 7:9, 36:1, 36:6, 36:15, 36:19, 43:18, 43:20, 43:22, 82:16, 83:14, 86:8, 91:5, 91:7 sanner 3:4 save 12:10, 21:6 saw 19:2, 19:5, 19:11, 70:19 say 22:8, 28:20, 30:11, 37:5, 42:3, 49:21, 50:18, 57:12, 58:7, 61:11, 62:10, 67:21, 69:10, 70:4, 87:18, 90:2, 90:9 says 7:4, 21:21, 55:4, 57:21, 58:14, 58:17, 72:5, 72:14, 73:22, 88:19 scars 40:16 scientific 54:2 scope 17:17, 77:17 screen 11:12, 11:15, 12:14 se 64:20 seal 93:4 second 21:5, 21:16, 32:18, 38:15,	60:3, 71:21, 71:22 secondary 18:1, 18:11, 18:16, 19:7 seconds 21:7 section 16:16, 19:13, 23:19, 26:20, 28:8, 29:11, 38:13, 46:11, 74:1, 74:10, 74:14, 77:16, 80:21 see 7:10, 11:1, 11:16, 11:20, 12:11, 12:13, 12:14, 13:16, 16:7, 19:1, 19:3, 21:12, 24:7, 24:10, 24:21, 24:22, 26:4, 27:1, 27:10, 27:13, 28:8, 28:13, 28:19, 28:20, 28:21, 31:21, 33:7, 33:10, 33:17, 33:21, 34:12, 34:16, 34:20, 35:4, 36:17, 37:13, 38:16, 38:17, 41:6, 47:11, 47:15, 47:21, 48:8, 48:13, 51:11, 51:14, 53:7, 53:8, 55:16, 62:15, 63:17, 63:19, 70:9, 70:12, 76:9, 76:15, 76:18, 77:18, 77:20, 80:8, 80:11, 80:17, 81:1, 81:3,	81:16, 81:22, 82:2 seem 49:4 seems 35:10 seen 33:15, 47:1, 67:3 sees 53:14 send 90:12, 90:17 sending 87:13 sense 24:15, 66:21 sentence 13:17, 13:18, 19:18, 20:1, 20:7, 21:12, 21:16, 23:21, 24:11, 24:14, 26:2, 27:1, 27:4, 27:11, 29:2, 32:18, 32:21, 38:15, 38:18, 51:12, 51:15, 59:6, 62:17, 74:20, 75:10, 75:15 separate 31:11, 48:12 serendia 1:7, 19:6 serious 40:12 set 61:15, 85:2, 85:14, 92:6, 93:3 setting 61:9 setup 86:7 seven 46:17, 51:11 seventh 81:21
s			
s 30:5 s-i-s 87:19 safety 75:11, 79:10 said 14:10, 30:13, 32:21, 41:21, 42:1, 42:3, 44:5, 62:19, 68:1, 90:13 same 7:11, 9:14, 22:13, 30:10, 36:8, 45:4, 66:4, 66:22, 67:14, 80:21,			

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

114

several 25:6, 35:4 shape 89:3 sharp 48:12 short 29:10, 43:16, 87:15 shorter 52:12, 52:17 shorthand 2:11, 92:1 should 17:11, 37:5, 59:20, 72:17, 73:5 show 11:19, 25:7, 26:11, 36:9, 41:21, 41:22, 42:4, 76:10 showed 71:4 showing 70:13, 85:17 shown 33:5 shows 32:8, 35:3, 35:4, 35:5, 54:7, 55:14, 59:17, 65:11 shrank 53:22, 64:9 shrink 33:21, 40:1, 49:7, 52:14, 56:13, 56:14, 56:20, 64:22 shrinkage 33:20, 52:11, 56:17, 56:21 shrinking 34:4, 34:11 shrinks 48:17, 48:19, 52:17, 53:8,	53:11, 56:9 shrunk 33:13, 39:22 side 13:14, 40:13, 89:4 signal 23:16, 29:20, 69:15, 69:16 signals 75:12, 79:11 signature-plkal 93:7 significant 9:10, 35:3 similar 56:8, 65:1, 85:10, 88:6 simpler 12:12, 61:21 simultaneous 54:19 since 9:10, 30:5, 77:5 single 22:21, 65:2 single-pulse 22:18 singular 66:12, 66:17 site 51:18 size 36:17, 53:13, 57:16, 58:7, 58:10, 59:16 sizes 57:5, 57:7 skill 17:15, 85:5, 85:12 skilled 23:11, 23:15, 31:11, 72:18 skin 5:10, 13:2, 19:21, 24:1,	29:5, 32:8, 32:13, 33:2, 33:17, 39:11, 40:16, 56:4, 56:5, 56:7, 71:20, 73:21, 74:21 slightly 52:19, 56:21 slow 87:11 small 42:12, 43:15, 52:20, 78:13, 90:17 smaller 53:11, 54:5, 54:7 smart 59:14 sold 31:18 some 33:16, 40:13, 50:14, 54:8, 63:7, 63:12, 63:15, 64:4, 64:17, 66:1, 67:7, 78:16, 79:22, 86:11, 90:15 somebody 73:1 something 53:5, 55:17, 66:13, 71:6, 78:19, 83:14 sometime 53:12 sometimes 31:16 somewhere 57:18, 70:5, 70:10 sorry 8:3, 14:1, 14:10, 21:4, 26:9, 26:13,	27:7, 27:22, 52:15, 61:5, 68:19, 76:15, 81:6, 87:3, 89:16 sounds 89:17 source 20:5, 21:18, 22:2, 87:1 sources 20:15, 70:1, 72:12 speak 15:17 speaker 8:15 speaking 8:12, 82:14 specific 78:22 specifically 26:20, 38:9, 38:15, 74:12 specification 44:20, 80:22, 84:13 speech 83:11 speeches 82:17 spend 31:9 spoke 76:15, 86:15 square 59:19, 60:19, 60:20, 62:7, 83:7 stand 67:21, 82:21 standard 5:6, 75:10, 76:18, 76:22, 77:3, 77:9, 77:13, 78:5, 79:10, 79:17, 85:17, 89:7
--	--	---	---

standards 81:16 standing 91:6 start 45:13, 76:5 started 8:11, 29:16 starting 12:20, 13:10, 42:19, 68:9 starts 16:17, 24:11, 27:1, 28:8, 38:10, 42:17, 74:11, 74:13 state 2:16, 16:20, 17:6, 59:10, 92:4 statement 25:2 states 1:1, 2:12, 6:4, 17:2, 19:19, 20:2, 23:21, 24:14, 29:2, 32:12, 32:18, 38:18, 39:10, 45:12, 45:14, 45:18, 45:22, 46:6, 46:19, 47:12, 47:17, 51:15, 56:3, 62:18, 69:18, 74:19, 75:9, 78:1, 80:12, 80:17 steam 64:17 stetson 3:8 still 12:14, 56:14 stimulation 22:18, 22:21, 23:1, 23:7, 90:11	stimulations 22:19 stimulator 22:19 stop 29:20 stops 61:16 stratum 33:11 street 3:15 strike 83:15 study 24:1, 24:15 style 4:3 sub 33:2 subject 81:18 submission 88:12 submit 9:19 submitted 9:22 substitute 5:15, 9:22, 10:3, 10:9, 10:12, 14:3, 14:13 success 18:5, 18:12, 19:8 suitable 71:19, 73:21 suite 3:7 summary 38:10, 80:18 supply 68:21, 69:6, 69:13, 70:6, 71:5, 71:15, 72:7, 73:17, 74:8, 74:9	supplying 68:21 support 5:17, 20:9, 20:11, 20:12 sure 12:9, 23:12, 25:14, 31:21, 33:22, 34:1, 34:2, 34:9, 37:3, 39:17, 42:6, 43:18, 44:11, 46:13, 49:9, 50:18, 50:20, 54:13, 55:1, 55:2, 62:16, 66:14, 67:8, 67:22, 68:4 surface 33:8, 53:9, 53:10, 53:16, 54:18 surgeon 85:20 surgery 88:13 surgical 40:7, 75:11, 77:21, 78:1, 79:4, 79:5, 79:10, 79:16 surrounding 24:18, 55:22, 57:6, 59:7 sworn 7:3, 92:7 synchronized 88:18 synonymous 30:11 system 5:14, 22:13, 23:9, 31:14, 31:18, 66:9, 69:22, 72:11, 73:13, 78:11, 78:15, 78:18,	79:22, 81:2, 82:21, 83:1, 83:3, 83:6, 85:12, 85:13, 85:18, 88:5, 88:17, 89:8, 90:5 T table 81:16 tabs 16:7 take 10:3, 10:16, 20:17, 25:10, 25:22, 32:5, 42:17, 46:13, 51:8, 57:1, 60:10, 75:18, 80:3, 86:10 taken 92:9 takes 60:9 taking 71:8 talk 27:11, 40:4, 54:6 talked 64:11, 90:19 talking 36:3 talks 48:9 tapered 59:4 target 13:7 targeted 29:4 technician 3:20, 8:10, 11:22, 13:12, 91:14 technologies 40:13
---	--	--	---

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

116

technology 19:12, 30:21, 59:17 tell 26:17, 42:15, 46:11, 49:5, 50:3, 51:3 temperatures 29:4 tennessee 2:13 term 29:12, 30:17, 31:13, 44:8, 47:3, 47:17, 48:1, 48:8, 55:2, 66:20, 67:6, 67:8, 84:13 terminology 48:6, 48:7, 67:20 terms 59:19, 61:21 terrible 78:17 test 88:3 tested 81:18, 81:22 testified 8:20, 9:5, 41:18, 90:4 testify 7:16 testimony 9:11, 41:11, 41:13, 41:14, 44:2, 44:18, 62:17, 89:22, 90:14, 92:10 testing 88:10, 88:14 text 21:21, 25:1, 27:13, 28:19, 28:21, 34:1, 34:7, 34:18,	46:11, 49:13, 49:20, 67:9, 76:9 th 80:9, 93:4 thank 12:7, 21:6, 43:19, 44:17, 60:21, 83:11, 86:8 therapeutic 87:4 therefore 52:13, 52:18, 63:11 thermal 47:19, 81:2 thing 16:6, 30:10, 88:4, 89:11 things 9:15, 16:8, 38:21 think 22:14, 30:5, 41:15, 44:5, 46:10, 49:22, 52:6, 60:4, 70:8, 70:19, 72:13, 74:7, 77:5, 77:6, 85:22, 89:17, 90:1, 90:13, 90:18 thought 67:17 thousands 85:20 three 24:10, 27:2 through 8:6, 15:1, 15:7, 15:12, 16:19, 16:22, 17:6, 17:21, 18:4, 31:4, 31:9, 56:7, 64:15, 64:16,	78:20, 78:21, 87:18 thursday 1:15 time 8:15, 8:19, 9:19, 17:16, 31:8, 31:9, 40:14, 61:16, 61:18, 61:20, 61:22, 63:12, 63:15, 71:8, 77:3, 85:21, 87:15, 88:1 times 61:22, 67:9, 89:18 tissue 13:7, 13:19, 13:22, 23:16, 24:18, 29:9, 30:6, 30:7, 30:14, 31:1, 31:4, 31:7, 33:3, 33:5, 33:8, 33:19, 33:21, 34:3, 34:4, 34:11, 34:14, 34:22, 35:7, 38:20, 39:3, 39:15, 39:16, 39:19, 39:20, 39:21, 40:10, 41:8, 41:9, 43:9, 43:14, 44:9, 44:10, 46:3, 46:8, 46:21, 47:14, 47:19, 47:20, 48:3, 48:5, 48:10, 48:11, 48:13, 48:16, 48:17, 49:1, 49:6, 49:7, 49:8, 49:20, 50:1, 50:2, 50:14, 50:22, 51:5,	51:17, 52:9, 52:11, 52:13, 52:14, 52:17, 53:8, 53:11, 53:13, 53:19, 53:20, 53:21, 54:20, 56:9, 56:13, 56:19, 59:7, 61:3, 61:4, 61:7, 63:5, 63:9, 63:19, 64:4, 64:5, 64:9, 64:12, 64:14, 64:15, 64:16, 64:20, 64:22, 65:3, 84:9, 84:11, 84:12, 87:16, 88:10 title 89:10, 89:11 today 7:17, 7:19, 8:12, 8:16 today's 83:19 together 56:14, 78:10 told 67:7 top 13:14, 26:20, 28:1, 77:14, 80:17 total 34:14, 35:1, 59:15, 63:2 totally 67:10, 68:4 toward 69:11 towards 56:10 trademark 1:1 transcript 4:13, 5:2, 6:2, 6:6, 42:1, 42:4,
--	--	---	--

42:19, 44:12 treat 29:18, 53:10 treating 13:2, 38:20, 54:18 treatment 19:21, 30:2, 32:15, 38:3, 41:2, 52:2, 53:7, 71:20, 73:21, 74:21, 85:10 trial 1:2, 9:5, 41:14, 41:17 tried 40:4 true 92:9 truthfully 7:17 try 8:12, 8:17, 9:13 tumor 87:18 tuneable 24:15, 27:2, 28:17, 28:22, 32:13 turn 45:8, 77:13, 83:17 turning 24:9, 82:13 twice 79:19 two 3:7, 31:14, 32:21, 65:5, 66:18, 66:22 type 63:16 types 20:14, 60:14, 60:16, 70:1 typo 67:7, 67:10	U ubiquitous 30:17 uh-huh 13:11, 14:1, 14:4, 19:15, 26:22, 27:21, 32:11 unable 31:8, 50:3, 51:3 under 9:1, 9:5, 9:11, 34:4 understand 7:12, 21:22, 22:10, 25:1, 29:8, 31:9, 49:9, 59:17, 62:16, 68:1, 73:7, 74:20, 79:15, 83:13, 84:18, 89:13, 90:1 understanding 17:2, 20:9, 22:6, 23:10, 66:16, 68:2, 91:1, 91:2 understandings 16:20, 17:7 understood 23:15, 71:17, 72:2, 72:19, 73:1, 73:19, 74:2 undesirable 72:17, 74:22 undue 45:16, 45:20 unfortunately 29:13, 48:7, 49:3 unhealthy 29:22 united 1:1, 6:4, 69:18	unless 31:8, 63:17 unlike 38:2 unresolved 18:6, 18:12 unresponsive 83:12 unsolved 19:8 until 77:5 updated 76:22 upper 62:6, 62:11, 63:1, 64:2, 64:20 use 11:13, 19:20, 30:16, 40:4, 44:13, 45:15, 54:5, 66:13, 71:12, 71:14, 72:14, 73:17, 74:20, 75:12, 78:3, 79:11, 79:18, 83:9, 84:13, 85:2, 85:12, 85:20, 90:15, 90:16 uses 66:20 using 5:12, 20:14, 21:13, 21:17, 22:1, 22:2, 24:1, 29:17, 30:18, 32:9, 39:11, 47:3, 61:16, 69:22, 70:1, 70:6, 70:14, 71:5, 72:2, 72:3, 72:6, 72:11, 73:13, 74:3, 74:4, 78:15, 78:18, 83:3,	83:4, 83:7, 83:8 usually 22:20, 54:2, 63:13, 90:12 V vague 40:3 validity 8:20, 9:1, 9:7, 9:11 value 62:13 van 19:3, 65:13 vapor 64:18 vaporization 39:4, 39:13, 39:17, 40:3 vaporize 39:19 vaporized 39:16 varied 58:15 variety 60:13 various 77:1 vary 62:13 verbatim 42:4 version 16:1, 16:5, 36:21, 76:3, 76:4, 76:15, 77:6, 77:8 vertical 46:2, 46:7, 46:20, 47:18, 49:15 vertically 47:13 via 2:1, 3:2, 3:12 videoconference 2:2
--	--	--	--

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

118

videographer 21:3, 36:11 view 43:12, 44:3, 44:6, 44:19 virtually 92:15 visible 53:1 vivo 24:1 voit 3:6 volt 69:15 voltage 83:5, 87:14 volume 30:14, 40:1 volumetric 13:18, 30:14, 34:2, 34:10, 43:9 volumetrically 31:1, 43:13	watt 59:19, 61:14 wattage 69:5 watts 60:19, 61:11, 61:12, 78:2 way 8:8, 11:9, 22:5, 22:7, 30:15, 30:22, 40:6, 45:1, 45:4, 50:18, 54:10, 59:20, 66:1, 72:20, 76:21, 87:21, 89:9, 92:22 ways 31:6, 56:11 we'll 14:6, 15:22, 25:10, 38:7, 76:2 we're 10:7, 44:12, 44:17 weeds 63:8 weide 19:3, 65:13 welcome 36:7, 82:16 well-known 19:20 wesley 3:3 whatever 16:12, 36:4, 62:9, 62:14, 88:4 whereas 56:11 whereof 93:3 whereupon 43:21, 86:12, 91:17 whether 17:11, 25:15,	30:19, 31:10, 50:1, 50:3, 51:4, 65:21, 72:8, 72:9, 86:22 width 57:10, 57:19, 58:14, 58:16, 58:17, 58:18, 58:19, 58:21, 59:2, 59:3 window 11:17 wiser 68:3 withdrawn 76:19 within 66:8, 92:4 without 13:6, 30:7, 31:1, 45:19, 48:13, 49:8, 56:19 witness 4:6, 21:4, 36:9, 36:13, 36:17, 36:20, 43:19, 82:15, 92:6, 92:10, 93:3 woloszko 1:14, 2:1, 4:6, 5:16, 7:2, 7:8, 12:17, 14:13, 36:7, 36:22, 44:1, 70:15, 76:8, 82:9, 82:12, 83:11, 86:8, 86:15, 92:5, 92:15 woloszko-redacted 5:21 word 27:15, 40:3, 44:12, 44:13, 44:14, 55:2, 55:3, 84:10	words 85:2 work 8:16, 11:14, 35:12, 54:10 world 69:19 worries 26:14 worthwhile 91:13 wouldn't 49:21 wound 46:9 wound-healing 46:22 wrinkle 5:11 wrinkles 13:2 write 25:18 writes 46:5, 47:2 writing 35:21 written 22:5, 22:7, 22:14, 32:17, 40:17 wrong 27:22, 28:4 wrote 25:20
W			
want 19:16, 23:6, 25:7, 26:17, 29:21, 41:21, 41:22, 44:11, 49:9, 50:20, 54:8, 61:11, 62:9, 62:16, 70:22, 82:4, 84:19, 91:9, 91:14 wanted 29:18, 61:12 washington 2:14 water 39:19, 39:20, 39:22, 43:16, 64:17 watkins 3:14			
Y			
			yeah 10:8, 11:13, 11:19, 11:20, 12:2, 12:18, 13:15, 14:8, 16:3, 16:13, 16:14, 20:11, 26:7, 26:15, 26:18, 26:20, 27:9, 28:1, 32:7, 32:17,

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

119

32:21, 33:3, 34:17, 35:16, 36:9, 36:13, 36:15, 37:10, 60:18, 62:21, 69:18, 76:5, 76:6, 77:19, 80:22, 81:15, 82:8, 84:17, 86:21, 87:3, 87:4, 89:21, 90:3, 91:10 years 34:8, 87:10 yellow 31:15, 31:16 yesterday 60:6, 71:4	02 1:16 02116 3:16 1 1 32:12 1,500 85:18 10 1:15, 5:19, 6:5, 16:18, 65:10, 65:14, 65:21, 88:8, 92:16 100 52:21 1003 4:15, 14:16, 15:22, 16:15, 23:18, 38:9, 51:9, 68:11, 79:7 1005 4:17, 45:9, 45:10, 55:12 1006 4:19, 68:6, 68:7 1007 4:21, 20:8, 83:21, 83:22 1010 20:8 1014 5:4, 20:17, 20:19, 89:19 1030 5:6, 75:16, 75:19, 75:20, 76:13, 76:17 1031 5:10, 26:1, 26:3, 26:8, 26:9, 27:18 1037 5:15, 10:4,	10:5, 14:3 105 37:13, 37:15, 41:3 106 37:20, 55:8 11 6:7, 91:18, 92:17 113 70:9 117 71:11, 71:13, 72:13, 73:16 12 12:20 120 69:15 1268 42:19 12704567 93:12 129 70:8 131 26:7 14 20:20 15 11:4, 12:20, 93:4 16 4:16 17 6:9, 14:15, 15:1, 15:11, 16:17, 16:19, 80:9 18 17:2, 93:6 180 3:8 19 14:21, 17:6, 17:21, 18:4 2 2-2 5:7, 5:9,	75:12, 83:10, 89:7 20 5:5, 17:10, 35:2, 35:6, 35:10, 38:9, 61:12, 75:16, 77:6, 87:10 200 3:15, 60:19 2000 37:17 2004 5:20, 35:15, 35:18, 36:4, 37:5, 38:5 2008 77:5 2009 76:3, 77:5 201.1 77:17 2010 37:17 2017 82:1 2022 6:10, 80:9 2023 6:7 2024 1:10, 1:15, 92:16, 93:5 2026 6:4, 10:18, 10:19 2028 93:6 2033 6:6, 42:7, 42:8, 42:13 212781 80:18 212871 87:4 22 14:5, 14:11, 16:19, 17:6,
z zero 89:5 zone 33:1, 33:8, 53:6, 53:17, 53:19, 54:7, 63:11 zones 27:16, 32:19, 33:4, 46:3, 51:13, 51:16, 54:14, 55:22, 57:5, 59:6, 84:4 zoom 2:2, 3:2, 3:12, 8:6, 8:14, 10:7, 11:16 . .1 74:1, 77:17 .2 74:1 0 00386 1:10 01 92:16			

Transcript of Jean Woloszko, Ph.D.
Conducted on October 10, 2024

120

17:21, 18:4 23 16:21 24 19:16, 19:18, 42:20 25 20:2, 20:7, 55:14, 55:21 259 28:1 26 5:14 260 27:20 261 32:6 263 26:1, 26:18, 26:19 268 14:15, 15:2, 15:12, 16:22 27 23:19, 24:10, 47:9, 47:11 271 15:7 2845 80:3 2845.1 6:9, 80:4, 86:16 2851 87:3 3 30 34:8, 53:12, 91:18, 92:17 312 3:10 32 21:10, 21:13, 21:16, 68:12, 68:22 34 12:21, 13:10,	13:16 35 5:21 36 13:18 37 13:18, 38:13 4 40 31:2, 53:13 42 6:7 45 4:18, 13:4, 74:11, 74:15 47 57:1, 57:12 48 57:2, 57:12, 59:5, 74:13 49 22:15, 71:12 4900 3:7 5 50 60:18, 61:11, 61:13, 68:21, 69:13, 70:11, 78:2 510 80:8, 80:17, 80:18 53 58:12, 58:14 55 65:15 556331 1:20 5600 3:10 57 51:8, 51:10, 60:10, 60:11, 62:18 58 68:16, 70:11	59 37:8, 37:12, 68:12, 68:18, 68:19, 68:20, 69:11, 71:13 6 6,766,202 6:5, 10:14, 10:21 6- 93:6 6.0 82:1 60 69:15 6000 3:17 60601 3:9, 5:7, 75:12, 82:1, 89:7 616 3:10 617 3:17 65 65:6, 65:17, 66:1 6731 3:9 68 4:20 7 77:5 70 30:5 75 5:9 8 80 6:10 800 29:11 802 93:9	83 4:22 836 7:14, 8:21, 9:2, 9:7, 9:12, 9:18, 10:10, 15:3, 15:6, 19:19, 20:9, 20:11, 20:13, 23:22, 38:10, 38:19, 39:2, 39:10, 40:12, 40:19, 41:1, 41:12, 41:18, 42:21, 43:4, 44:3, 44:20 86 4:8 9 9 1:16, 92:16 9,480,836 1:11, 5:19 92 4:10, 74:15 93 1:21 948 3:17 97 70:20, 74:13, 74:16, 74:19, 75:3 98 70:20, 75:9, 79:6 - -part 5:8
---	--	---	---

Re: Deposition of **Jean Woloszko, Ph.D.**

Date: 10/10/2024

Case: Jeisys Medical, Inc. -v- Serendia, LLC (PTAB)

Return to: transcripts@planetdepos.com

Page	Line	Correction/Change and Reason	Reason
2	1	Replace “Jean Woloszko, PhD. ” with “Jean Woloszko, MD, PhD”	
4	6	Replace “Jean Woloszko, PhD. ” with “Jean Woloszko, MD, PhD”	
7	2	Replace “Jean Woloszko, PhD. ” with “Jean Woloszko, MD, PhD”	
8	5	Replace “H-U-A-N-G” with “H-U-A”	Misspoke
23	1	Replace “stimulation provided an AC ...” with “stimulators provide a DC”	Misspoke
23	7-8	Replace “this is very negative effects. Been described in nerve fatigue” with “this has very negative effects that have been described as nerve fatigue”	Transcription error
23	9	Replace “But the AC part” with” But the DC part”	Misspoke
29	13	Replace “I ignore” with “I don’t know”	Transcription error
30	20-21	Replace “actual removal as you know” with “actual removal. As you know”	Transcription error
31	13-14	Replace “and RF” with “any RF”	Transcription error
33	15	Replace “those image” with “those images”	Transcription error
41	7-9	Replace “one example of fractional device that makes a lesion and leaves empty tissue is one of damage issue and healthy tissue” with “one example of a fractional device that makes a lesion and leaves healthy tissue between zones of damaged tissue and healthy tissue”	Transcription error
45	3	Replace “both polarities of the same” with “both polarities on the same”	Transcription error

Re: Deposition of **Jean Woloszko, Ph.D.**

Date: 10/10/2024

Case: Jeisys Medical, Inc. -v- Serendia, LLC (PTAB)

Return to: transcripts@planetdepos.com

Page	Line	Correction/Change and Reason	Reason
47	5-6	Replace “The hole, is it hole to decide what perforation means or is it hole as in exclusive one or the other?” with “The “or”, is it “or” to decide what perforation means or is it “or” as in exclusive one or the other?”	Transcription error
49	16	Replace “mentions perforation creates holds” with “mentions perforation creates holes”	Transcription error
53	2	Replace “this is why he” with ”this is what he”	Transcription error
59	22	Replace “the more electrode” with “the more electrodes”	Transcription error
64	2	Replace “much less predictable” with “much less critical”	Transcription error
64	15	Replace “energy through tissue” with “energy flows through tissue”	Transcription error
64	21	Replace “predictable” with ”critical”	Transcription error
76	22	Replace “this -- IEC standard” with “these IEC standards”	Transcription error
78	6	Replace “these exemption” with “these exemptions”	Transcription error
78	14	Replace “ithocator” with “Hyfrecator”	Transcription error
79	1	Replace “ I believe, all of this relate...” with “I believe, almost all of these relate”	Transcription error

Re: Deposition of **Jean Woloszko, Ph.D.**

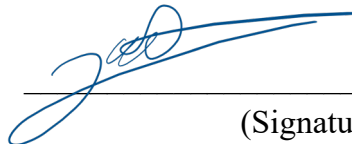
Date: 10/10/2024

Case: Jeisys Medical, Inc. -v- Serendia, LLC (PTAB)

Return to: transcripts@planetdepos.com

Page	Line	Correction/Change and Reason	Reason
79	21	Replace “I don’t know any non DC” with “I don’t know any non AC”	Misspoke
83	6	Replace “This is the – this is – was the predicate the Aliya system using” with “This is the – this is – was the predicate. The Aliya system is using”	Transcription error
85	17	Replace “electro system” with “electro surgical systems”	Transcription error
85	20	Replace “surgeon” with “surgeons”	Transcription error
86	1	Replace ”describes” with “described”	Transcription error
86	4	Replace “patent” with “patents”	Transcription error
86	4	Replace “describe to create” with “describe how to create”	Transcription error
87	20	Replace, “which is means” with ”which means”	Transcription error
87	22	Replace “basically we leak” with ”basically leaks”	Transcription error

Oct. 30, 2024
(Date)


(Signature)

No. 556331

Re: Deposition of **Jean Woloszko, Ph.D.**

Date: 10/10/2024

Case: Jeisys Medical, Inc. -v- Serendia, LLC (PTAB)

Return to: transcripts@planetdepos.com

ACKNOWLEDGMENT OF DEPONENT

I, Jean Woloszko, MD, PhD., do hereby acknowledge that I have read and examined the foregoing testimony, and the same is a true, correct and complete transcription of the testimony given by me and any corrections appear on the attached Errata sheet signed by me.

Oct. 30, 2024

(Date)



(Signature)