

EXHIBIT B

Videotaped Deposition of
Joseph J. Talghader, Ph.D.
 December 16, 2022

Spectral Instruments Imaging, LLC

vs.

Scintica, Inc.



1 IN THE UNITED STATES DISTRICT COURT
 2 FOR THE SOUTHERN DISTRICT OF TEXAS
 3 HOUSTON DIVISION
 4 -----
 5 SPECTRAL INSTRUMENTS IMAGING,
 6 LLC,
 7 Plaintiff,
 8 vs. Civil Action No. 4:22-cv-00043
 9 SCINTICA, INC.,
 10 Defendant.
 11 -----
 12 VIDEO-RECORDED DEPOSITION
 13 OF
 14 JOSEPH J. TALGHADER, PH.D.
 15 -----
 16 Taken December 16, 2022 By Christine M. Clark, RPR
 17 Job No. 10111334
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Joseph J. Talghader, Ph.D.

Spectral Instruments Imaging, LLC vs.
 Scintica, Inc.

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Joseph J. Talghader, Ph.D.

Spectral Instruments Imaging, LLC vs.
 Scintica, Inc.

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1 The Video-Recorded Deposition of Joseph J. Talghader,
2 Ph.D., is taken at DLA Piper LLP, 80 South Eighth
3 Street, Suite 2800, Minneapolis, Minnesota, with
4 Attorney Dawn Jenkins appearing via Videoconference, on
5 this 16th day of December 2022, commencing at 9:23 a.m.

6 THE VIDEOGRAPHER: We're on the record.
7 Today's date is December 16th, 2022. The time is now
8 9:23 a.m. Central Time.

9 This is the deposition of Joseph Talghader in the
10 matter of Spectral Instruments Imaging, LLC versus
11 Scintica, Inc.; Case Number is 4:22-cv-00043, filed in
12 the United States District Court for the Southern
13 District of Texas, Houston Division.

14 We're located at 80 South Eighth Street,
15 Minneapolis, Minnesota. The videographer's name is
16 David Jenkins, appearing on behalf of Aptus Court
17 Reporting. And the court reporter's name is Christine
18 Clark, also appearing on behalf of Aptus.

19 Will Counsel please introduce themselves and their
20 affiliations?

21 MS. JENKINS: Good morning. Dawn Jenkins
22 and John McDermott, on behalf of the Plaintiffs,
23 Spectral Instruments.

24 MR. PERRY: Shawn Perry, on behalf of
25 Defendant Scintica, Inc.

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1 THE VIDEOGRAPHER: Will the court reporter
2 please swear in the witness?

3 JOSEPH J. TALGHADER, PH.D.,
4 a witness in the above-entitled action,
5 after having been first duly sworn, deposes
6 and testifies as follows:

7 EXAMINATION

8 BY MS. JENKINS:

9 Q. Good morning, sir. My name is Dawn Jenkins. I'm an
10 attorney at DLA Piper here in Houston. I understand
11 you're there in Minneapolis today.

12 A. Yes, good morning.

13 Q. Could you please state your full name for the record?

14 A. Joseph John Talghader.

15 Q. Talghader.

16 A. Talghader.

17 Q. Did I pronounce that correctly?

18 A. Talghader, yes.

19 Q. Mr. Talghader, have you ever been deposed before?

20 A. No.

21 Q. Have you ever served as an expert witness in a patent
22 case before?

23 A. No.

24 Q. You understand that your testimony here today is under
25 oath, correct?

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1 A. Yes.

2 Q. And I believe we talked about this off the record, but
3 because we're doing this, sort of, hybrid remote,
4 in-person deposition, I just ask that you make an
5 effort to speak loudly and clearly, and give verbal
6 answers so that both I and the court reporter can hear
7 your testimony.

8 Is that fair?

9 A. Yes.

10 Q. We can take breaks --

11 A. Mm-hmm.

12 Q. -- during the deposition today, whenever you'd like to
13 have a break, bathroom break, get up to stretch your
14 legs, walk around. We'll probably take a break about
15 every hour. But if you need to take a break before
16 that for any reason, just let me know. I just ask that
17 you not take a break while a question is pending.

18 A. Okay. Thank you. And is my voice clear right now?

19 Q. It's good. It could be a little louder on my end, but
20 I think it's probably as good as it's going to get.

21 A. Okay.

22 Q. Thank you. Dr. Talghader, you're not an expert in in
23 vivo fluorescent imaging, correct?

24 A. I have expert credentials in many aspects of it. The
25 biological part I would certainly say that I'm not an

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1 expert, but certainly all the optical parts I would say
2 that I am.

3 Q. But you're not an expert in in vivo fluorescent
4 imaging, correct?

5 A. No, I suppose not. The biological parts of it, no.

6 Q. You're not an expert in fluorescent imaging, generally,
7 correct?

8 A. I have patents in the area. So I have some expertise
9 in the area, yes.

10 Q. But your patents in the area of fluorescent imaging
11 don't pertain to in vivo imaging, correct?

12 A. No. They're DNA analysis patents.

13 Q. And you haven't published any papers on in vivo
14 fluorescent imaging, correct?

15 A. No.

16 Q. You haven't authored any patents on in vivo fluorescent
17 imaging, correct?

18 A. No.

19 Q. You've not taught any courses or gave any presentations
20 or lectures on in vivo fluorescent imaging, correct?

21 A. Again, the optical aspects of all of this, quite
22 frequently I have, you know, touched on that. But,
23 again, the biological portion, the medical and all of
24 that, no, I have not any expertise in that.

25 Q. Your work is more focused on thermal imaging and the

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1 detection systems and on laser-induced material
2 breakdown, right?

3 A. That is part of my expertise. Optics in general. So
4 optics and microelectronics is traditionally how the
5 university, you know, couches my expertise.

6 Q. And how would you define your expertise in optics?

7 A. Fairly broadly. I've worked in a variety of areas. I
8 can go to my report, in fact, if I want to read some
9 things off.

10 We've done -- light-emitting devices is one of my
11 major expertise. I've been doing that since graduate
12 school. I've done optical systems. Sorry. Optics,
13 optical and infrared materials, detectors and focal
14 plane arrays, as you mentioned. I've done optical
15 coating filters, photovoltaic cell devices.

16 THE REPORTER: I'm sorry. Could you just
17 slow down just a little bit?

18 THE WITNESS: Oh, I'm sorry. Sorry.

19 A. Optical filters, photovoltaic devices and also directed
20 energy. And so a lot of -- a lot of areas we've worked
21 in over the years.

22 MS. JENKINS: I've added to the chat in the
23 Zoom meeting what we'll mark as Exhibit 1 to your
24 deposition.

25 (Exhibit 1 is marked for identification.)

1 Q. (MS. JENKINS) This is a copy of the resume you
2 provided us --

3 A. Okay.

4 Q. -- with your report.

5 Can you please let me know when you have that open?

6 Or you could flip to it in your binder, if you prefer.

7 A. I have it over here. Okay. Okay. I have the opening
8 page of it. Thank you.

9 Q. Mm-hmm. Dr. Talghader, your education is in electrical
10 engineering, correct?

11 A. Yes.

12 Q. Both your undergraduate, graduate and PhD is in
13 electrical engineering, correct?

14 A. That's the degrees. Actually, when I was an
15 undergraduate, I was a double major in physics and
16 electrical engineering. And at the end, I was told to
17 pick a -- pick a degree. So I picked electrical
18 engineering because I thought it was the most, you
19 know, employable.

20 Q. Marketable?

21 A. Yeah.

22 Q. What was the topic of your dissertation?

23 A. It was on two topics really. So Fluidic Self-Assembly,
24 a method of assembling LEDs and lasers into silicon
25 integrated circuits and wafers, and also

1 vertical-cavity surface-emitting lasers, which is a
2 light-emitting semiconductor device that's very
3 commonly used. For example, when they do facial
4 recognition with your iPhone, they're using vertical
5 cavity surface-emitting lasers to essentially map out
6 your face.

7 MR. PERRY: Let me interrupt you.

8 THE WITNESS: Mm-hmm.

9 MR. PERRY: I think you're going to want to
10 slow down your speaking.

11 THE WITNESS: Oh.

12 MR. PERRY: Because the court reporter's
13 going to really struggle otherwise.

14 THE WITNESS: Okay. I'm sorry about that.

15 MR. PERRY: No problem.

16 THE COURT REPORTER: Thank you.

17 THE WITNESS: My apologies.

18 Q. (MS. JENKINS) Fair to say, Dr. Talghader, that that
19 dissertation did not involve florescent imaging?

20 A. No.

21 Q. Let's take a look at page 2 of your resume. There's a
22 section there titled Previous Positions.

23 A. Mm-hmm. Yes.

24 Q. None of those positions involved working with
25 florescent imaging, correct?

1 A. No.

2 Q. Turn to page 7 of your resume. There's a section
3 titled Research Funding.

4 A. Yes.

5 Q. And it continues through page 12.

6 A. Yes.

7 Q. None of those research projects involved florescent
8 imaging, correct?

9 A. No, they did not. However, the ties into my patents
10 occurred with -- alongside Item 34, with the Biomedical
11 Engineering Institute. That's where I started talking
12 to Dr. Blumenfeld about the patents that were related
13 to fluorescence imaging.

14 Q. Okay. We'll go back to that. Let's turn to page 36 of
15 your resume, please.

16 A. Okay.

17 Q. On page 36, there's a section titled Consulting Work.

18 A. Yes.

19 Q. None of that consulting work involved florescent
20 imaging, correct?

21 A. No.

22 Q. Dr. Talghader, you're currently a Professor of
23 Electrical Engineering and Computer Science, correct?

24 A. Electrical and computer engineering, yes.

25 Q. Okay. Thank you for correcting me.

1 Have you ever used an in vivo fluorescent
2 imaging --
3 A. No.
4 Q. -- device before?
5 A. No, I have not.
6 Q. Do you know what molecular imaging is?
7 A. Yes, broadly. Yes.
8 Q. What is it?
9 A. Essentially using molecular fluorescence to develop,
10 you know, images of, you know, objects and specimens.
11 Q. Biological specimens --
12 A. Yes.
13 Q. -- correct?
14 A. Uh-huh. Well, you could chemical. You could. We can
15 expand more broadly than biological.
16 Q. Had you ever heard of Scintica before you were engaged
17 in this case?
18 A. No.
19 Q. Had you ever heard of Vilber or Vilber Lourmat before
20 you were engaged in this case?
21 A. No.
22 Q. Had you ever heard of my client, Spectral Instruments,
23 before you were engaged in this case?
24 A. No.
25 Q. Do you know what products of Scintica are accused of

1 infringement in this case?
2 A. I have been shown this information, but I could not
3 rattle off model numbers or anything like that.
4 Q. When you say you've been shown this information, what
5 do you mean by that?
6 A. Well, I've been given files to -- to look at with this.
7 And that was part of the background information of my
8 report but was not the core material of the report,
9 which focused on the patents and the file history, of
10 course.
11 Q. You reviewed a copy of the complaint that was filed in
12 this case, right?
13 A. Yes.
14 Q. Is that the background --
15 A. That's the background.
16 Q. -- information that you're referring to?
17 A. Yes.
18 Q. Any other background materials?
19 MS. JENKINS: I'm sorry. Was there
20 something from the court reporter?
21 THE COURT REPORTER: Oh, I was just saying
22 to speak one at a time to the witness. Just let her
23 get her full question out.
24 THE WITNESS: I'm sorry. I'm sorry.
25 THE COURT REPORTER: No, that's totally

1 fine. Everybody does it.
2 MS. JENKINS: Thank you. Yes. That's a
3 good reminder to not speak over each other. I'll try
4 not to interrupt you and --
5 THE WITNESS: And I will do the same.
6 MS. JENKINS: -- you try not to.
7 THE WITNESS: Yeah. My apologies.
8 MS. JENKINS: No problem.
9 Q. (MS. JENKINS) Any other background materials that
10 you've reviewed regarding the products accused of
11 infringement in this case?
12 A. Well, I would refer to Exhibit C on that one. It kind
13 of lists out the materials that I was given, the court
14 documents, the patent documents and some of the
15 resources that I found myself.
16 Q. Okay. I'm adding that document to the chat. Exhibit C
17 to your report is the list of materials considered.
18 A. Mm-hmm.
19 MS. JENKINS: Let's mark that as Exhibit 2
20 to your deposition.
21 (Exhibit 2 is marked for identification.)
22 Q. (MS. JENKINS) Okay. Have you ever seen one of
23 Spectral Instruments' fluorescent imaging products in
24 person before?
25 A. No.

1 Q. Have you ever seen one of Vilber's fluorescent imaging
2 products in person before?
3 A. No.
4 Q. Dr. Talghader, you're not a lawyer, correct?
5 A. No.
6 Q. You have no formal legal training --
7 A. No.
8 Q. -- or education?
9 A. No.
10 Q. So you're not a legal expert?
11 A. No.
12 Q. And you're not a patent law expert either, correct?
13 A. No. I have experience with patents, but not as a
14 patent lawyer, no.
15 Q. So you don't intend to offer any legal opinions on
16 patent law --
17 A. No.
18 Q. -- in this case, correct?
19 A. No.
20 Q. And you're not a registered patent agent with the U.S.
21 Patent and Trademark Office, correct?
22 A. No.
23 Q. And I believe you testified earlier that you have not
24 served as an expert or consultant in a patent
25 infringement litigation before this matter, correct?

1 A. I have not served in that way.

2 Q. You're aware, based on your review of the complaint in

3 this case, that my client, Spectral, filed a lawsuit

4 against Scintica for infringement of U.S. Patent Number

5 8,901,516, correct?

6 A. Yes.

7 Q. Can we agree we'll refer to that patent today as the

8 '516 patent for short?

9 A. Yes.

10 Q. Have you been retained to -- I'm sorry?

11 A. I -- I didn't say anything.

12 MS. JENKINS: I thought I heard the court

13 reporter. No?

14 THE REPORTER: No.

15 MS. JENKINS: Sorry. My audio is not very

16 good.

17 Q. (MS. JENKINS) Dr. Talghader, have you been retained to

18 provide expert opinion on the validity of the '516

19 patent in this case?

20 A. I think that's probably a loaded legal term. I

21 suspect -- can you clarify? Are you referring to

22 technical opinions or legal opinions? Very different

23 thing.

24 Q. Sure. Well, let me ask it a different way.

25 Has Scintica's counsel asked you to provide an

1 download it and now open it.

2 Okay. I have it open now.

3 Q. Exhibit 3 is the expert report that you submitted in

4 this case, correct?

5 A. Yes.

6 Q. And this is a complete copy of your expert report,

7 minus the exhibits, correct?

8 A. I'm going to have to look at it for a moment in order

9 to determine that.

10 Q. Sure, take your time.

11 A. So, yes, everything I've looked at appears to be the

12 report as I submitted it.

13 Q. And you submitted this report on October 17th, 2022,

14 correct?

15 A. I believe that is correct, yes. It was about that

16 time.

17 Q. If you flip to page 27 of your report, page 30 of the

18 PDF.

19 A. Okay.

20 Q. Do you see --

21 A. Yes.

22 Q. -- your signature on that page?

23 A. Yes. Yep. That's October 17th.

24 Q. Do you see it's dated October 17th?

25 A. Yes.

1 opinion on the validity in this case?

2 A. No. Whether the '516 patent is a valid patent or not,

3 no, that's not why I've been retained.

4 Q. Okay. Has Scintica's counsel asked you to provide an

5 expert opinion on whether or not the '516 patent is

6 infringed?

7 A. Sorry. Can you repeat the question?

8 Q. Yes. Have you been asked to provide an expert opinion

9 on infringement of the '516 patent in this case?

10 A. No.

11 MS. JENKINS: Okay. I'm adding to the Zoom

12 chat what we'll mark as Exhibit 3 to your deposition.

13 This is a larger file. This is your expert report.

14 (Exhibit 3 is marked for identification.)

15 Q. (MS. JENKINS) Do you see that?

16 A. Yes, I see it. And I have it here in front of me.

17 Q. Okay. Are you referring to the printed copy in front

18 of you?

19 A. I'm referring to the printed, yes.

20 Q. All right. For the time-being, if you could, please,

21 open the copy in the Zoom chat and take a look at that,

22 and confirm that that's a complete copy of your report.

23 A. Okay. Sorry. My computer --

24 Q. Minus the exhibits.

25 A. My computer's giving me some trouble. It wants me to

1 Q. Do you have anything that you would like to add or

2 correct in your expert report since it was submitted on

3 October 17th?

4 A. There are some minor things. If you go to paragraphs 3

5 through 5, some of the department names were bumbled.

6 So, for example, it's -- instead of Electrical

7 Engineering and Computer Science, it's actually

8 Electrical and Computer Engineering. And while the

9 department used to be named the Department of

10 Electrical Engineering, it is now Electrical and

11 Computer Engineering. Also, the Berkeley one was

12 Department of Electrical Engineering and Computer

13 Sciences. And those, so those three items there.

14 And then I also noticed on page 23 -- let's go to

15 page 23. You will notice in -- wait. Is this page 23?

16 Yeah, here it is. Here we go.

17 You will notice in the paragraph 72, in the second

18 line of the quoted paragraph, "may also be provided

19 with diffusers," that is -- should be 26 instead of 36.

20 Q. Okay. So there's a typo there?

21 A. That's right.

22 Q. In paragraph 72, in the citation to the patent?

23 A. Yes, that's right.

24 Q. It should read "diffusers 26"?

25 A. Yes.

1 Q. Okay. Got it. All right. Thank you.

2 Anything else?

3 A. Not that I'm aware of at this moment.

4 Q. Okay. Let's take a look. If you could, please, turn,

5 either in the PDF or in the copy in front of you, to

6 paragraph 10 of your report.

7 A. Okay.

8 Q. You state in paragraph 10, "I have also worked on

9 projects involving the scanning of biological samples,

10 including fluorescent imaging," correct?

11 A. Yes. That was the work that I did with Dr. Martin

12 Blumenfeld and Dr. Mark Sanders in developing the

13 patents for fluorescence imaging.

14 Q. But as we discussed earlier, that was not in vivo

15 fluorescent imaging, correct?

16 A. No, it was not.

17 Q. So, if we were to look at your CV, which is Exhibit A,

18 can you point me to where in your CV -- excuse me --

19 where in Exhibit 1, your CV, is this project disclosed?

20 A. Okay. Let me go to my CV. So this would be in the

21 section on patents. So Issued U.S. Patents on page 32

22 of the CV, if you look at the last three,

23 M. Blumenfeld, M.A. Sanders, J.J. Talghader, M.

24 Blumenfeld, J.J. Talghader, M. Blumenfeld, J.J.

25 Talghader, those three patents came out of that

1 project.

2 Q. Okay. And that project, I believe you testified

3 earlier, was Project Number 34 under the list of --

4 A. Well, okay. So the --

5 Q. -- research projects?

6 A. -- project originated because of contacts made during

7 that project. That specific project was on a different

8 theme, but the origination of this came out of that.

9 Q. Okay. Project 34, in fact, was related to sensors for

10 magnetic resonance imaging, correct?

11 A. Yes, that is correct. Yes.

12 Q. Okay. Is there anywhere else in your CV that discusses

13 the work that you did that led to the patents '70, '71,

14 and '72 listed on page 18 of your resume?

15 A. Page 18?

16 Q. I'm sorry. I may be looking at the wrong spot. I am

17 looking at the wrong spot. Strike that.

18 On page 32 of your resume --

19 A. Yes. Mm-hmm.

20 Q. -- the last three patents in that list of Issued U.S.

21 Patents --

22 A. Yes.

23 Q. -- those are the projects that you're referencing in --

24 A. Yes.

25 Q. -- Paragraph 10 of your report, correct?

1 A. Yes.

2 Q. Any other projects that you're referring to in

3 paragraph 10 of your report?

4 A. No.

5 Q. And you were not the lead inventor on any of those

6 three patents, correct?

7 A. No.

8 Q. And in fact, those -- those three patents are related,

9 correct? They're the same family --

10 A. Yes.

11 Q. -- of patents?

12 A. Yes. As I understand it, yes.

13 Q. And in those patents, according to the invention, the

14 light source is below the biological material, which is

15 on a microarray or flat surface, correct?

16 A. In the embodiments that I primarily recall, yes.

17 Q. Do you know if any of those patents were physically

18 reduced to practice?

19 A. Dr. Blumenfeld started a company called Blizzard

20 Genomics to reduce them to practice, but I do not

21 believe that that ever went to completion.

22 Q. Looking at Exhibit 1, your resume, on that same page --

23 A. Mm-hmm.

24 Q. -- 32 --

25 A. Mm-hmm.

1 Q. -- none of the patents listed here, which you're a

2 named inventor, involve whole animal imaging, correct?

3 A. No.

4 Q. And looking again to just those last three patents that

5 you describe as involving fluorescent imaging, those

6 patents were issued in 2004 or 2005 and 2006,

7 respectively, correct?

8 A. Yes.

9 Q. Okay.

10 A. As I remember. I mean, yeah, it should be.

11 Q. Okay.

12 A. For some reason -- for some reason this --

13 Q. And I'm not sure if you remember this offhand. But

14 I'll represent to you that the last application in this

15 family that resulted in a published patent --

16 A. Uh-huh.

17 Q. -- was filed in 2002. Does that sound correct?

18 A. Yes. That sounds correct, yes.

19 Q. And that's just over two decades ago, correct?

20 A. Yes.

21 Q. Have you continued working with Mr. Blumenfeld or

22 Mr. Sanders since you concluded your work on these

23 patents?

24 A. No.

25 Q. Have you published any other papers or presentations

1 since August or -- well, scratch that.

2 Have you presented any other publications or

3 lectures since 2002 that pertain to fluorescent imaging

4 of biological materials?

5 A. No.

6 Q. And as a part of your work at the university, you don't

7 work with in vivo fluorescent imaging devices, correct?

8 A. Not the biological part of it, no.

9 Q. Do you work with fluorescent imaging devices as a part

10 of your work at the university?

11 A. We do occasionally use fluorescent materials, yes, in

12 our optical experiments, but in a non-biological

13 setting.

14 Q. In what applications?

15 A. So, for example, we've done self-assembly work where we

16 build little micro devices and we've tagged those

17 particles using fluorescence to track them.

18 Q. And when's the last that you -- that you used for --

19 designed a fluorescent imaging device?

20 A. Can you be more specific about what you mean by

21 fluorescence imaging?

22 Q. Yeah. Let me withdraw that and rephrase.

23 Okay. So you just mentioned that you occasionally

24 work with fluorescent imaging as a part of your work at

25 the university, correct?

1 correct? We just looked at that.

2 A. Yes.

3 Q. Were you engaged in October?

4 A. Yes. Well, sorry. Sorry.

5 When you mean engaged, did I start?

6 Q. When were you first engaged? Were you engaged first in

7 October?

8 A. Oh, my apologies. Please, strike that.

9 I was working for Perry & Perry in October, but

10 when it started, it would have been before that. I do

11 not know what day it started.

12 Q. Did your engagement begin in September?

13 A. I would have to go back and find when that was. I do

14 not know.

15 Q. Okay. Have you ever worked with Mr. Perry or Perry &

16 Perry before this case?

17 A. No.

18 Q. Do you personally know any of the individuals or

19 employees who work for any of the parties in this case?

20 A. No.

21 Q. About how long did you spend working on your report in

22 this case?

23 A. Many hours. I would have to go back and look at the

24 billing, but it was at least 20.

25 Q. Do you recall over what time period approximately that

1 A. Yeah. We take images of fluorescence materials

2 sometimes, yes.

3 Q. And you gave an example of --

4 A. Mm-hmm.

5 Q. I don't want to misquote you. Self-assembly work --

6 A. Yes.

7 Q. -- building micro devices?

8 A. Yes.

9 Q. When did you do that work?

10 A. I would have to go back and check as to when the last

11 time we did that was.

12 Q. Okay.

13 A. Yeah.

14 Q. More than a year ago?

15 A. Yes, it was more than a year ago.

16 Q. More than five years ago?

17 A. Probably. I don't want to pin myself down, but

18 probably.

19 Q. Who retained you to provide expert opinion in this

20 case?

21 A. Perry & Perry.

22 Q. When were you retained?

23 A. I would have to go back and look at the exact date. It

24 was earlier in the fall.

25 Q. Okay. You submitted your report on October 17th,

1 you worked on the report, how many days or weeks?

2 A. I couldn't pin down exact days, but, obviously, towards

3 -- I mean, in the early and middle parts of October,

4 there was quite a lot of work in that area, basically,

5 on the report.

6 Q. Sure. And you say at the end of your report,

7 Exhibit 3, paragraph 83, that your hourly compensation

8 is \$250, correct?

9 A. Yes, per hour.

10 Q. Do you know about how much you've billed to -- on this

11 matter thus far?

12 A. Thus far, I have sent in one bill, but I have a number

13 of weeks of -- pending that I have not submitted yet.

14 Q. Now, Dr. Talghader, who drafted your report?

15 A. I did, in collaboration with Mr. Perry and Mr. Bianchi.

16 Q. Didn't catch the last name. I'm sorry.

17 A. Mr. Bianchi, Tim Bianchi.

18 Q. Is he an attorney with Perry & Perry?

19 A. He is an attorney with another firm.

20 Q. Do you know the name of the law firm?

21 A. I would want to look it up. Do you want me to look it

22 up now, or...

23 Q. No, that's all right.

24 A. Okay.

25 Q. But if you do have access to the date that you began

1 your engagement, perhaps you could share that with me.

2 A. Okay. Give me a few minutes to find this.

3 Okay. So the first time we started discussions

4 would have been in late July, but I know that I was not

5 -- in other words, not formally hired then. So I --

6 let's see. Where would I even find that?

7 Q. I'm sorry. I didn't hear that last bit.

8 A. Sorry. Where -- I'm questioning myself.

9 Where would I even find where the official date was

10 that I started? I signed some document, and I'm going

11 to have to -- I can search for it, if you would like me

12 to.

13 Q. That's all right. You're referring to an engagement

14 letter?

15 A. Yes.

16 Q. Okay.

17 A. The letter of hire or something, whatever you want

18 to...

19 Q. Okay. You can -- I assume you're looking at your email

20 currently?

21 A. Yes, that's right. That's exactly what I'm doing.

22 Q. Okay. You can close out, please.

23 A. Okay.

24 Q. And you don't have anything else opened on your

25 computer, other than the Zoom window, correct?

1 A. And the claims construction, expert report, and the

2 things you sent me.

3 Q. Understood. Okay. So, you, Mr. Perry, and Mr. Bianchi

4 collaborated on your report, correct?

5 A. Yes.

6 Q. Did anyone else participate in drafting your report?

7 A. No.

8 Q. Did anyone else participate in forming the opinions

9 that are expressed in your report?

10 A. No, at least not that I'm aware of.

11 Q. Well, I mean, it's your report. So presumably you

12 would be aware --

13 A. I only spoke --

14 Q. -- of anyone else who might have contributed to the

15 opinion, correct?

16 A. Well, so, when you start talking about did Mr. Perry or

17 Mr. Bianchi talk to other people and then bring that

18 information forward, that I could not judge. But I

19 know that I only spoke to Mr. Bianchi and Mr. Perry

20 with respect to the report.

21 Q. Understood.

22 Since you were engaged in this case, have you

23 reviewed any confidential information of Scintica?

24 A. No, at least none that I'm aware of.

25 Q. Have you reviewed any of Vilber's confidential

1 information?

2 A. None that I'm aware of.

3 Q. Have you reviewed any of Spectral's confidential

4 information?

5 A. None that I'm aware of.

6 Q. Have you been shown a copy of the protective order

7 entered in this case?

8 A. No.

9 Q. Have you been asked to sign an acknowledgement that you

10 will comply with the terms of the protective order?

11 A. I believe the only document that I've signed so far is

12 the, you know, engagement at the beginning. And I'm

13 afraid --

14 Q. Okay.

15 A. -- if I say something -- I don't think that I probably

16 have, but I don't know the legal --

17 Q. I think you would remember. I have not seen one from

18 -- from counsel for Scintica, but I just wanted to

19 confirm --

20 A. Uh-huh.

21 Q. -- that you have not seen it --

22 A. Uh-huh.

23 Q. -- and you have not signed one.

24 A. Okay. I have not seen any confidential information,

25 and, as I have been told, what you just referred to as

1 a protective order, that's confidential. So, or at

2 least something --

3 Q. Correct.

4 A. -- not allowed.

5 Q. And you have not signed an acknowledgement --

6 A. No.

7 Q. -- with respect to the protective order in this case,

8 correct?

9 A. No. I don't know anything about a protective order in

10 this case.

11 Q. Have you reviewed any public documentation concerning

12 Vilber's imaging devices?

13 A. Sorry. Could you repeat the question?

14 Q. Sure. Have you reviewed any public information about

15 Vilber's imaging devices?

16 A. Oh, yes. I've seen the --

17 Q. Okay.

18 A. You know, the brochures and things like that. Yeah.

19 Mm-hmm.

20 Q. Did you conduct this investigation on your own, or were

21 you provided this information by counsel?

22 A. A little of both.

23 Q. Are those sources of information listed on your Exhibit

24 C, Materials Considered?

25 A. Let me go look. I don't know of any -- oh, wait.

1 Yeah, the marketing brochure right here. Yes. There
2 is the number 3 item on the Court Documents in this
3 Matter, in Exhibit C.
4 **Q. That's the attachment to the complaint, correct?**
5 A. It says Complaint, Exhibit B - Vilber Newton Marketing
6 Brochure, ECF numbers 1 to 2.
7 **Q. Other than the brochure that was attached to the**
8 **complaint, did you review any other information on the**
9 **Vilber Newton imaging devices?**
10 A. I can't recall.
11 **Q. Okay. What about Spectral's imaging devices? Have you**
12 **reviewed any public information describing them?**
13 A. I believe I've seen it before, yes.
14 **Q. In what context have you seen it?**
15 A. Peripheral and background information just regarding
16 the case, the claim construction case.
17 **Q. So you conducted your own internet searches, for**
18 **example, regarding the Spectral device?**
19 A. Things like this, yeah.
20 **Q. Okay. Were you also provided information from**
21 **Scintica's counsel about the Spectral devices?**
22 A. I may have been, but I can't remember every document
23 that I, you know, saw.
24 **Q. Okay. Did you rely on any of those documents in**
25 **forming your opinions expressed in your report?**

1 **Q. I'm sorry. I couldn't hear you.**
2 A. Sorry. I thought it was going to appear automatically
3 in Zoom, but I have to download it and open it.
4 **Q. Yes. Sorry about that.**
5 A. Okay.
6 MR. PERRY: I'm having trouble downloading
7 and opening these as well.
8 MS. JENKINS: Sure. How about I'll share my
9 screen. Will that work?
10 MR. PERRY: Yeah. Or if there's a reference
11 to the materials in the report. There may not be for
12 this one, but I'm not sure if we have a hard copy of
13 that here or not. I don't think we do.
14 **Q. (MS. JENKINS) Okay. Dr. Talghader, I have put**
15 **Exhibit 4 up on the screen.**
16 A. Uh-huh. Yes. Uh-huh.
17 **Q. Can you see it?**
18 A. Yes, I can. Thank you.
19 **Q. And, again, this is Defendant's Proposed Terms and**
20 **Claim Elements for Construction.**
21 A. Mm-hmm. Uh-huh.
22 **Q. I'll scroll through this, since you can't control it on**
23 **your end. But have you ever seen this document before?**
24 A. It is very possible that I have. I must confess that a
25 document like this that seemed more legal than

1 A. No. I mean they were primarily background material.
2 **Q. Understood. Okay. I'm going to add some more**
3 **documents to the chat. Just a moment here.**
4 A. Okay. What have you just added to the chat?
5 **Q. So if you take a look at the chat window, do you see a**
6 **document beginning 2022.09.14?**
7 A. Yes, I do. What is that one?
8 MS. JENKINS: Okay. Let's open it, and
9 let's mark this as Exhibit 4 to your deposition.
10 (Exhibit 4 is marked for identification.)
11 THE WITNESS: Well, can you read the title
12 of it for me, please?
13 **Q. (MS. JENKINS) Yes. Exhibit 4 to your deposition is**
14 **Defendant's Proposed Terms and Claim Elements for**
15 **Construction.**
16 A. Oh, I see. Okay.
17 **Q. Do you see that?**
18 A. Yes. Okay. Thank you.
19 **Q. And this document is dated September 14th, 2022,**
20 **correct?**
21 A. Yes.
22 **Q. Have you ever seen this document before?**
23 A. Okay. Hold on a second. So I thought that was going
24 to appear in the Zoom. I've got to download it and
25 open it.

1 technical, I have often not fully understood, and I, in
2 forming, basically, making my opinion of the report, I
3 usually have just noted these rather than actually used
4 them in any practical sense.
5 **Q. Okay. Let's look at Exhibit 5, which is Defendant's**
6 **Proposed Claim Constructions and Identification of**
7 **Extrinsic Evidence dated September 26th, 2022.**
8 **Do you see that in your chat?**
9 A. Okay. I see, yes. This is 9/26, Scintica's Proposed
10 Claim Constructions and Identification of Extrinsic
11 Evidence; is that correct?
12 **Q. Correct.**
13 A. Okay.
14 **Q. And I'm putting it up on your screen now.**
15 A. Mm-hmm.
16 **Q. Do you see that?**
17 A. Yes. Mm-hmm.
18 (Exhibit 5 is marked for identification.)
19 **Q. (MS. JENKINS) And I'll just scroll through this again.**
20 **Tell me if you've ever seen this document before.**
21 A. I'm almost certain that I probably have, but, again,
22 this would be a legal document that I have -- I'm not
23 fully -- I'm not sure I would fully understand the
24 legal implications of documents such as this.
25 **Q. And do you see that Exhibit 5 is dated September 26,**

1 2022?

2 A. Yes.

3 Q. And do you see that, in the chart, for example, on

4 page 2 --

5 A. Mm-hmm.

6 Q. -- that there's a citation to expert testimony of

7 Joseph J. Talghader, PhD?

8 A. Mm-hmm. Yes.

9 Q. Does this suggest to you that you were retained at the

10 time --

11 A. Oh, of course, yes.

12 Q. -- as this was served?

13 A. Yes.

14 MR. PERRY: Let her finish her question.

15 THE WITNESS: Oh, I'm sorry. I'm sorry.

16 Sorry. Please, please continue.

17 Q. (MS. JENKINS) Does this suggest to you that you were

18 retained at the time that this document was served on

19 September 26th?

20 A. Yes. And I mean, so, you're referring to retained in

21 it started before the 26th?

22 Q. Correct.

23 A. Yes. Yes. That's true.

24 Q. And you said that you believe that you had reviewed a

25 copy of this before?

1 A. I believe so, yes.

2 Q. Okay. Do you recall when you first reviewed it?

3 A. No.

4 Q. Did you review a draft of Exhibit 5 before it was

5 served on September 26th?

6 A. Quite possibly. Again, I will apologize, but a lot of

7 these legal documents I do not fully understand the

8 implications of. And a lot of my development of ideas

9 and all of this came from patents and patent documents

10 and prior art knowledge. And the legal stuff, I am

11 just kind of wading through with water up to here.

12 Q. Understood. It's a deep pool to get thrown into, isn't

13 it?

14 A. Yes.

15 Q. So you don't recall whether or not you reviewed a copy

16 of this --

17 A. I certainly reviewed all the --

18 Q. -- Exhibit 5 before it was -- before September 26th?

19 A. Oh. I would have seen -- I mean, certainly reviewed

20 the claim constructions. But as far as the official

21 legal document, I'm sure that I saw it, noted it, but

22 did not retain it as information for my technical

23 opinion.

24 Q. Okay. Did you draft the proposed constructions that

25 are shown in Exhibit 5?

1 A. Yes.

2 Q. The answer is yes?

3 A. Yes. Let me see. Maybe I can --

4 THE REPORTER: I'm sorry. I can't hear you.

5 A. Sorry. Can I -- let me look at this document again.

6 It's...

7 Yes. These are the constructions that I put in my

8 report.

9 Q. (MS. JENKINS) Okay.

10 A. You know, largely, yeah. I have to go check word by

11 word.

12 Q. I'm sorry. I can't hear you.

13 MR. PERRY: Let's just -- can we just go off

14 the record for a second? So --

15 MS. JENKINS: No. No, we cannot. He's

16 still answering a question that I have pending.

17 A. Okay. Can you rephrase the question?

18 If I'm going to -- if you want me to opine on

19 whether these -- I wrote these constructions, I have to

20 check every single word versus my report to make sure

21 that something hasn't been changed. So, again, this is

22 a legal document.

23 Q. (MS. JENKINS) Well, let me ask you a different

24 question.

25 A. Okay.

1 Q. Have you changed your opinion on what the proper

2 constructions should be over the course of your

3 engagement in this case?

4 A. Once the report was submitted, no.

5 Q. Okay. Prior to the report being submitted, did you

6 change your opinion on what the proper constructions

7 should be?

8 A. While I was forming my opinions, yes. And I have to

9 say that I do not know -- I do not recall exactly when

10 my opinions hardened relative to the date of this

11 document.

12 MS. JENKINS: Understood. Okay. Let's take

13 a look at some other exhibits that I think will refresh

14 your memory here.

15 I'm adding to the Zoom chat what's been marked --

16 or what we can mark as Exhibit 6 to your deposition.

17 (Exhibit 6 is marked for identification.)

18 Q. (MS. JENKINS) I'll put this up on the screen, but, if

19 you'd like, perhaps you can open it on your end as

20 well.

21 A. Okay. This is 10/14/22, Scintica's view?

22 Q. Correct. Let me know when you have it opened.

23 A. Okay. Give me a second. Okay.

24 Q. Do you have Exhibit 6 open?

25 A. Yes. Yes, uh-huh.

1 Q. And Exhibit 6 is titled Defendant's Updated Proposed
2 Claim Constructions --
3 A. Mm-hmm.
4 Q. -- and Identification of Extrinsic Evidence, correct?
5 A. Yes. Uh-huh.
6 Q. And if you look down at the bottom in the last page of
7 the document --
8 A. Mm-hmm.
9 Q. -- it's dated October 14th, 2022, correct?
10 A. Okay. Yes, I see that.
11 Q. Have you seen this document before?
12 A. I'm sure that I have, but, again, these are legal
13 documents rather than technical documents, and I'm not
14 always sure of the implications of them. So,
15 oftentimes, they get subordinated to the technical
16 information that I develop my opinions around.
17 Q. Okay. And do you see that Exhibit 6 contains track
18 changes or redlines --
19 A. Yes, I do.
20 Q. -- to the previously served proposed claim
21 constructions?
22 A. Are you talking about redlines in general, or to one
23 specific topic in the document?
24 Q. Well, we can go page by page, if that makes you
25 uncomfortable.

1 A. No. I'm just -- I mean, I do see redlines in the
2 document, if that's what you're referring to.
3 Q. Yes.
4 A. Okay. Yes.
5 Q. Okay. So you'd agree there are redlines in this
6 document?
7 A. Yes, definitely.
8 Q. And you'd agree these redlines are showing changes from
9 the September 14th -- I'm sorry -- September 26th
10 version of the constructions that were served, correct?
11 A. If you want me to give an opinion on that, I'm going to
12 have to read every single construction here. Again,
13 this is a legal document. I did not draw this document
14 up, but I have seen it.
15 Q. Okay. Well, let's take a look at page 3 of this
16 document.
17 A. Okay.
18 Q. Do you see the column heading Claim Term or Phrase?
19 A. Yes. Uh-uh.
20 Q. And do you see that there is a term there, "a light
21 source positioned within each of the plurality of lamp
22 receptacles"?
23 A. Mm-hmm.
24 Q. And the word "a" and a phrase "each of the plurality of
25 lamp receptacles" has been crossed out?

1 A. Yes.
2 Q. Okay. Did you participate in or contribute to that
3 change in the proposed --
4 A. Yes. Yes.
5 Q. -- claim term?
6 A. Yes, of course. All the claim constructions I was
7 involved in. The preparation of this specific legal
8 document, I would not have been.
9 Q. Understood. I'm not asking you about the
10 preparation --
11 A. Okay.
12 Q. -- of the legal document.
13 A. Okay.
14 Q. I'm asking you about your participation in the changes
15 to the proposed --
16 A. Yes.
17 Q. -- claim terms for construction and the changes to the
18 proposed construction.
19 A. Yes. I've been involved.
20 Q. Okay. So if you take a look there on that same page,
21 there is a column titled Defendant's Proposed
22 Definition.
23 A. Mm-hmm.
24 Q. Do you see that?
25 A. Yes. Uh-huh.

1 Q. And that corresponds to the claim term that we just
2 looked at, correct?
3 A. Yeah. This refers to the light source positioned
4 within, just to regard the non-surface-mounted light
5 source. Yeah.
6 Q. Okay. And there's a change here in which you struck
7 out the last portion of that claim construction,
8 correct?
9 A. Yes. But, again, this part of it was mostly just to
10 highlight the non-surface-mounted with respect to the
11 light source -- with respect to the light source. Yes,
12 that's the primary.
13 Q. So the change to that construction reflects a change to
14 the definition of the proposed claim term, correct?
15 A. Right. Yes. Right.
16 Q. Okay. All right. Let's take a look at page 4.
17 A. Okay.
18 Q. Do you see the claim term or phrase diffuser?
19 A. Yes. Mm-hmm.
20 Q. Okay. Amended from the phrase "a diffuser"?
21 A. Mm-hmm.
22 Q. Okay. And do you see that the definition proposed by
23 Defendant's for diffuser has been revised slightly to
24 add the word "optical" before that second mention of
25 component?

1 A. Mm-hmm. Yes, I see that.

2 Q. Do you know why that change was made?

3 A. Let's see. Well, it's just -- optical just means the

4 component is -- narrows the component to an optical

5 component as to a, sort of, mechanical or electronic,

6 which wouldn't make sense in this context.

7 Q. And then directly beneath that term diffuser, there's a

8 term, "positioned within at least some of the plurality

9 of lamp receptacles, each of said diffusers diffusing

10 light produced by each of said light sources."

11 And that is struck through?

12 A. Mm-hmm.

13 Q. Correct?

14 A. Yes.

15 Q. Do you know why that claim term was removed?

16 A. The purpose of this particular line was to define

17 diffuser, which was defined by the applicants in the

18 patent incompletely, and that's why the extra verbiage

19 was put in on the top.

20 Q. And then in the column, Defendant's Proposed

21 Definition --

22 A. Mm-hmm.

23 Q. -- there's a statement, "The remainder of the element

24 can be interpreted using plain and ordinary meaning."

25 And that's been struck through, correct?

1 A. It must have been.

2 Q. -- constructions were served? I'm sorry. Let me

3 finish.

4 A. Oh, I'm sorry.

5 Q. Did you not appreciate that when the original

6 constructions were served?

7 A. It must have been so; otherwise, I wouldn't have

8 changed it. But thank you. Thank you for pointing it

9 out. I don't remember the exact dates of these.

10 Q. And then your proposed construction here is, "at least

11 some of the plurality of lamp receptacles refers to

12 lamp receptacles that contain narrow-band light

13 sources," correct?

14 A. Yes. Mm-hmm.

15 Q. All right. Let's take a look at the next page, page 5.

16 A. Okay. Okay.

17 Q. All right. Again, there are some changes here to the

18 proposed claim term or phrase for construction, right?

19 A. Mm-hmm.

20 Q. And the phrase, "at least one narrow-band light

21 source," you've struck out "at least one," correct?

22 A. Mm-hmm.

23 Q. And in the phrase "positioned within at least one of

24 the plurality of lamp receptacles," you've struck out

25 "at least one of the plurality of lamp receptacles,"

1 A. Yes, it has.

2 Q. Why did you change your opinion that that claim term

3 could be -- or claim element could be interpreted using

4 plain and ordinary meaning?

5 A. Again, the entire purpose of this line item was to

6 expand on the definition of diffuser as used by the

7 applicants. That they just used the definition, not

8 incorrectly, but incompletely, and I thought the extra

9 verbiage at the top would highlight the actual physical

10 use of the word diffuser.

11 Q. Okay. And in the next row on that same page 4, there's

12 a new claim term or phrase that's been added, correct?

13 A. Mm-hmm.

14 Q. That's the "at least some of the plurality of lamp

15 receptacles," correct?

16 A. Yes.

17 Q. And that refers to claims 1 and 14 in the '516 patent?

18 A. Yes. Mm-hmm.

19 Q. Why did you determine that that claim term should be

20 construed?

21 A. Well, because the applicants are clearly referring to

22 narrow-band light sources in the patent, and, you know,

23 file history for the patent.

24 Q. Is that something you didn't appreciate when the

25 original --

1 correct?

2 A. Yes.

3 Q. Why did you make that change?

4 A. Because in this particular claim term, the file history

5 in particular, but also to the patent to a certain

6 extent, the applicants denied the use of

7 surface-mounted devices. And, so, I chose to put

8 non-surface-mounted in there, in front of narrow-band

9 light source.

10 Q. Okay. But non-surface-mounted was within your original

11 definition, correct?

12 A. Yes.

13 Q. So why did you make the changes shown on page 5?

14 A. So non-surface-mounted light source which produces

15 narrow-band light, this just seemed to be extra

16 verbiage. It was -- it did not seem to significantly

17 change the meaning. So, you know, it didn't seem like

18 useful verbiage.

19 Q. Okay. And why did you replace the -- well, strike

20 that.

21 So in this document you're no longer proposing that

22 the phrase "positioned within" should be construed,

23 correct?

24 A. Yes.

25 Q. Okay. Let's look at page 6. The only change on this

1 page was to replicate the changes that you made above
2 for claims 1 and 14, correct, and to refer back to
3 those claims?
4 A. Yes. Let's see what this one says. "A housing
5 defining a central opening therein."
6 MR. PERRY: Try not talking to yourself.
7 THE WITNESS: Oh, I'm sorry. I'm sorry.
8 A. Yes, there were similar changes for 25, as for 1 and
9 14. But if you're going to pin me down on an exact
10 word, I need to go back and check everything.
11 MS. JENKINS: That's okay. You can set that
12 aside.
13 Okay. Adding another document to your chat. We
14 can mark as Exhibit 7 to your deposition.
15 (Exhibit 7 is marked for identification.)
16 **Q. (MS. JENKINS) Exhibit 7 is Defendant's Second Updated**
17 **Proposed Claim Constructions and Identification of**
18 **Extrinsic Evidence.**
19 **Do you see that?**
20 A. Yes. I'm popping it up right now. Okay. I see and
21 acknowledge the document, yeah.
22 **Q. Do you recognize this document?**
23 A. Probably I've seen it before. Again, this is a legal
24 document rather than a technical one. So I...
25 **Q. Are you finished with your answer?**

1 A. Yeah. Yes, I am.
2 **Q. Okay. All right. Did you review a copy or a draft of**
3 **the second updated proposed claim constructions before**
4 **it was finalized?**
5 A. The -- so, the claim constructions that I came up with,
6 I always, of course, review. Now, as far as this, so
7 what went into this document, yes, I had knowledge of
8 and used, and, eventually -- and, again, I don't
9 remember each revision, the exact -- what changed in
10 every single revision.
11 However, I do remember going over all my claim
12 constructions multiple times, and then I assume
13 Mr. Perry helped develop this document based on that.
14 **Q. Okay. Did you develop or draft the constructions**
15 **themselves, the second updated constructions?**
16 A. I developed the claim constructions. I am not going to
17 be able to speak to each revision because I just don't
18 remember what was in each revision, but, I did develop
19 the claim constructions, yes.
20 **Q. Did you develop the claim constructions in the original**
21 **first amended and second amended proposed constructions**
22 **in collaboration with Mr. Bianchi and Mr. Perry?**
23 A. Yes. So all of the claim constructions, regardless of
24 which revision, was always done in collaboration.
25 **Q. Excuse me. Okay. Let's take a look at page 2 of this**

1 document. Let me know if you need me to put it up on
2 the screen.
3 A. Okay. I see the document, yes.
4 **Q. Okay. Do you see the claim term or phrase here claim**
5 **term number 1, "a housing defining a central opening**
6 **therein and a plurality of lamp receptacles surrounding**
7 **the central opening"?**
8 A. Yes, I see that.
9 **Q. And do you see that the proposed construction has been**
10 **revised again to, among other things, delete that final**
11 **phrase, "each hole configured to contain a light source**
12 **inside the hole"?**
13 A. Actually, I don't see that. Which line are you
14 referring to?
15 **Q. I'm on page 2 of Exhibit 7.**
16 A. Right. And I see the -- are you at the third line? So
17 there's the preamble, the preamble, and then the
18 housing defining central opening. And then what I see
19 is the "main body member having an opening through its
20 center."
21 **Q. Let me put this up on the screen so we can avoid**
22 **confusion. Okay. Can you see my screen?**
23 A. Yes, I can.
24 **Q. Okay. Let's backtrack a little bit. This document is**
25 **Exhibit 7 to your deposition. It's titled, Defendant's**

1 **Second Updated Proposed Claim Constructions and**
2 **Identification of Extrinsic Evidence.**
3 **Do you see that?**
4 A. Yes, I see that.
5 **Q. And is this the document that you've been testifying**
6 **about for the last several minutes?**
7 A. Okay. Let me go back and see. Defendant's Updated
8 Proposed Claim Constructions and Identification of
9 Extrinsic Evidence.
10 Yes, I see that title. Although, I don't seem to
11 have the redlines that you do in it. Aah, that's
12 probably why we're off on the same pages. I don't have
13 -- my copy doesn't have the redlines on it.
14 **Q. Okay.**
15 A. At least in the bottom section. So what I'm reading in
16 the second column is "a main body member having an
17 opening through its center, the member having a
18 plurality of holes encircling the opening, each hole
19 configured to contain a light source inside the hole."
20 **Q. Is the document you're looking at dated October 17th?**
21 A. This document is dated -- oops. Sorry. I've got to go
22 to the end, I guess, for that. This says October 14th.
23 **Q. Okay. So close that document.**
24 A. Okay.
25 **Q. And open the document that's dated October 17th,**

1 please.

2 A. Okay. So then I must have been on the wrong document.

3 My apologies for that.

4 Q. No problem. It's a bit confusing.

5 A. Okay. Okay. I am -- now I see the document and I see

6 the redlines, the same that you have.

7 Q. Okay. All right. So just to clarify the record, I'm

8 going to go back over the questions that we asked

9 earlier now that you have the correct document in front

10 of you. Okay?

11 Exhibit 7 to your deposition is Defendant's Second

12 Updated Proposed Claim Constructions and Identification

13 of Extrinsic Evidence.

14 Do you see that?

15 A. Yes.

16 Q. Okay. And this document is dated October 17th, 2022,

17 correct?

18 A. I want to go to the end. Yes. It is dated

19 October 17th.

20 Q. And this document contains redlines or track changes

21 showing changes to the prior proposed constructions,

22 correct?

23 A. Yes.

24 Q. So this October 17th version is showing changes from

25 the October 14th version of the proposed constructions,

1 Q. Okay. And do you see that, among other things, one

2 change to the proposed definition is to strike that

3 final phrase, "each hole configured to contain a light

4 source inside the hole"?

5 Do you see that?

6 A. I see that, yes.

7 Q. Do you recall why that change was made?

8 A. Not at the moment.

9 Q. Okay. Do you see that the other change to that

10 proposed construction is to replace the word

11 "encircling" with the phrase, "in the member that

12 encircle"?

13 A. Yes, I see that.

14 Q. Do you recall why that change was made to the proposed

15 construction?

16 A. Not off the top of my head, no.

17 Q. Okay. If you could please look at page 3. There's a

18 new claim term added here. It's the corollary to

19 claims 1 and 14 and claim 25, correct?

20 A. Yes. It's the third independent claim.

21 Q. Do you recall why that claim term was not included in

22 prior versions of the proposed constructions?

23 A. No. I don't remember off the top of my head.

24 Q. Okay. Let's look at page 4. Do you see the claim term

25 or phrase, "a light source positioned within each of

1 correct?

2 A. Yes. Well, apparently, you know.

3 Q. Okay. Do you have this document open in front of you

4 as well?

5 A. Yes, I do. Yes.

6 Q. Okay. Did you participate in drafting the proposed --

7 second updated proposed constructions shown in this

8 document?

9 A. All of the claim constructions, I was involved with,

10 though, regardless of which draft it was.

11 Q. Okay. And you worked on those in collaboration with

12 Mr. Perry and Mr. Bianchi, correct?

13 A. Yes.

14 Q. Okay. So you would have reviewed a draft of those

15 proposed constructions before they were finalized and

16 -- and served, correct?

17 A. Yes.

18 Q. Okay. Let's take a quick look at this document. So

19 going back to page 2.

20 A. Okay. I see that.

21 Q. Referring to the claim term, "a housing defining a

22 central opening therein and a plurality of lamp

23 receptacles surrounding the central opening."

24 Do you see that term?

25 A. Yes. I see that. Yes.

1 the plurality of lamp receptacles"?

2 A. Yes, I see that.

3 Q. And do you see that this -- that the formulation of

4 this claim term has been changed again from, "light

5 source positioned within" to, "a light source

6 positioned within each of the plurality of lamp

7 receptacles"?

8 A. Sorry. So a -- could you repeat the question again?

9 Q. Yes. So if you look at claim term number 3.

10 A. Mm-hmm. Yes. Sorry.

11 Q. In that second column claim term or phrase.

12 A. Aah, I see. Okay. That's why it is --

13 Q. That contains the claim term or phrase that's from the

14 '516 patent being proposed for construction, correct?

15 A. Yes. Uh-huh.

16 Q. The prior version of that term was constrained to

17 "light source positioned within," correct?

18 A. Yes. Uh-huh.

19 Q. And this version adds the phrase, "each of the

20 plurality of lamp receptacles," correct?

21 A. Each of the plurality... Yes.

22 Q. Okay. I don't know if you can see my highlighting, but

23 here.

24 A. Yes. I see that. Yes.

25 Q. Do you recall why this change was made?

1 A. Yeah. So this one is actually getting closer to the --
2 to actually the content of the claim. And essentially,
3 the lamp receptacles were unclearly defined in the --
4 in the patent prosecution history, such that it was
5 very clear that holes was referred to, and the -- the
6 member just refers to the -- this overall structure.

7 **Q. The member refers to the overall structure?**

8 A. Yeah. Holes in the members. This would be the main
9 body member referred to earlier in one of the other
10 claims.

11 **Q. Well, main body member --**

12 A. Or proposed definition.

13 **Q. -- doesn't actually appear in the patent claim itself,**
14 **correct?**

15 A. Well, okay. So the re-proposed, revised -- actually,
16 main body member is one of the terms in the patent
17 specification that is used by the authors, the
18 applicants. But you are correct, it is not in the
19 claims of the patent.

20 **Q. The claims use the term "housing," correct?**

21 A. Yes.

22 THE REPORTER: Just remember to speak one at
23 a time. Thank you.

24 THE WITNESS: I'm sorry.

25 THE REPORTER: That's okay.

1 **Q. (MS. JENKINS) So in this proposed construction on**
2 **page 4, you've replaced the term "plurality of lamp**
3 **receptacles" with the term "plurality of holes of a**
4 **member," correct?**

5 A. Yes.

6 **Q. Okay. If you turn to page 5, do you see claim term**
7 **number 4?**

8 A. Yes. Mm-hmm.

9 **Q. And that's also a new term that was added for the first**
10 **time in this October 17th version of the constructions,**
11 **correct?**

12 A. I will have to go back and look at the prior documents.

13 **Q. Well, you see that it's marked there as an insertion in**
14 **blue text.**

15 A. Okay.

16 **Q. Correct?**

17 A. Yes, I see that.

18 **Q. So would it be your assumption that that's an addition?**

19 A. I -- if that's the standard way to put a new thing in
20 legal documents, I will take your word for it, yes.

21 **Q. Do you recall why this claim term or phrase was added?**

22 A. Let's see. This is the -- in referring, again, to the
23 non-surface-mounted and the light sources being narrow.
24 So, yes, I do remember the subject matter, why this was
25 changed, yes.

1 **Q. Okay. Why was it changed?**

2 A. Well, the -- the -- and, again, through the file
3 history, the light sources were non-surface-mounted
4 light sources. And in this particular aspect, there
5 was -- they are narrow-band as well, and so that's why
6 the changes were made.

7 **Q. But earlier constructions of -- of the term "light**
8 **source" also construed it as a non-surface-mounted**
9 **light source, correct?**

10 A. I -- again, I saw the documents you showed me and saw
11 that there, yes. But I do not remember the exact
12 sequence of, you know, what changed what day, what
13 changed, you know, etcetera.

14 **Q. Mm-hmm.**

15 A. I just remember the final that, you know -- of the
16 progress of the construction as we made them and I made
17 them.

18 **Q. Okay. If you look at the last row there on page 5,**
19 **claim term number 6.**

20 A. Mm-hmm.

21 **Q. Do you see the claim term or phrase "a diffuser**
22 **positioned within at least some of the plurality of**
23 **lamp receptacles"?**

24 A. Yes. Mm-hmm.

25 **Q. Okay. And if you look at Defendant's proposed**

1 **construction, do you see that there are some changes**
2 **that have been made that mirror some of the changes to**
3 **the other constructions with respect to plurality of**
4 **lamp receptacles?**

5 A. Okay. So we've got "a diffuser positioned within at
6 least some of the plurality of lamp receptacles."

7 **Q. Right.**

8 A. And then these --

9 **Q. And that's been changed -- or that's been construed,**
10 **rather, as holes.**

11 A. Yes. Again --

12 **Q. In some of the holes of the member?**

13 A. Yes. Again, that was -- again, lamp receptacles was --
14 receptacles is a word that can be used ambiguously
15 outside the technical meaning in the patented file
16 history, and that was better interpreted as holes. And
17 the member that contains narrow-band light sources of
18 these, yes. So, yes, the diffusers are positioned next
19 to narrow-band light sources.

20 **Q. Okay. Looking at page 6, I believe the changes on this**
21 **page are just reflecting the revisions to how the claim**
22 **terms have been scoped. So those changes are reflected**
23 **above.**

24 MR. PERRY: Counsel, when you're at a
25 transition point, this would probably be a good time

1 for a break. We've been going for a while.

2 MS. JENKINS: Yes. I'm fine with taking a

3 break. Let's see. Yep. I'm done with this one. We

4 can take a break. Let's go off the record.

5 MR. PERRY: Okay.

6 THE VIDEOGRAPHER: We're going off the

7 record. The time is now 10:48 a.m.

8 (Break taken from 10:48 a.m. - 11:06 a.m.)

9 THE VIDEOGRAPHER: We're back on the record.

10 The time is now 11:05 a.m.

11 BY MS. JENKINS:

12 Q. Welcome back, Dr. Talghader.

13 A. Thank you.

14 Q. During the break, did you discuss the substance of your

15 testimony with your counsel?

16 A. No. We discussed how I should not interrupt you in

17 your questions, which I will try not to do, and also

18 that I should not torture the stenographer by mumbling

19 under my breath and reading the claims.

20 Q. Much appreciated and good advice.

21 All right. Let's take a look back at your report

22 in this case, which is Exhibit 3 to your deposition.

23 Let me know when you've got that in front of you.

24 A. Okay. Exhibit 3. Sorry. Which? Which one are we on?

25 I'm really sorry. This is the 10/17 document again?

1 Q. Correct.

2 A. Okay. Let me just make sure I've got the one with the

3 right date.

4 MR. PERRY: She's asking for your actual

5 report.

6 Q. (MS. JENKINS) I'm sorry. The 10/17 report.

7 A. Oh, my report. My report.

8 Q. It's the third document in the chat, around 9:41 a.m.

9 A. Oh, I'm sorry. Okay. So this is my actual report?

10 Q. Correct.

11 A. Okay. Yes. Thank you. Yes, I have that.

12 Q. Okay. You have that open?

13 A. Yes. I've got it opened in front of me, the hard copy.

14 Q. Okay. Okay. Let's take a look at page 3 of your

15 report under the section Applicable Principles.

16 A. Yes.

17 Q. Do you see that?

18 A. Yes. Uh-huh.

19 Q. And then there's a subheading, Level of Ordinary Skill

20 in the Art and Relevant Time Frame.

21 Do you see that?

22 A. Yes, I see that.

23 Q. Do you agree that the relevant time frame for the level

24 of ordinary skill in the art would be the time when the

25 application for the '516 patent was filed?

1 A. Sorry. Could you repeat the question again, or

2 rephrase it?

3 Q. Sure. Would you agree that the time period one should

4 look at to determine the level of ordinary skill in the

5 art with respect to the '516 patent --

6 A. Mm-hmm.

7 Q. -- is the date that the patent application for the '516

8 patent was filed?

9 A. Yes, I agree with that. Yes.

10 Q. Okay. And with respect to the '516 patent, there was

11 also a provisional application, correct?

12 A. Yes.

13 Q. And you reviewed the provisional as part of your --

14 A. Yes.

15 Q. -- work in this case?

16 A. Yes.

17 Q. And the provisional application dates back to

18 September 1st, 2010, correct?

19 A. Yes.

20 Q. Okay. I'm looking at paragraph 19 of your report.

21 A. Mm-hmm.

22 Q. You state that it's your "understanding that factors,

23 such as the types of problems encountered in the art,

24 prior art solutions to such problems, how fast

25 innovations are made, sophistication of the technology,

1 and the education level of active workers in the field

2 are all to be considered when determining the level of

3 ordinary skill in the art." Do you see that?

4 A. Yes, I see that.

5 Q. Is that an understanding that you received from your

6 counsel?

7 A. Partially, yes. This section being more legal, I had

8 leaned on them more heavily than other sections.

9 Q. Okay. And that's Mr. Perry and Mr. Bianchi?

10 A. Yes.

11 Q. And it's your opinion that a person of ordinary skill

12 in the art of the '516 patent around September 1st,

13 2010, would have had a bachelor's degree in engineering

14 or physics and --

15 A. Mm-hmm.

16 Q. -- about two years of experience in imaging systems or

17 studies or research relating to light sources used in

18 imaging systems, correct?

19 A. Yes. That is true.

20 Q. Okay. When you refer to a bachelor's degree in

21 engineering, can it be any type of engineering?

22 A. I'm sure that there are some types of engineering, for

23 example, you know, industrial engineering, that might

24 not be as appropriate, but mechanical and electrical

25 should all be relevant to the field.

1 Q. So mechanical engineering, electrical engineering. Any
2 other disciplines?
3 A. I -- probably some aspects of chemical would be
4 appropriate, and material science would fit as well.
5 Q. So, in your opinion, a person of ordinary skill in the
6 art would not necessarily have to have a bachelor's
7 degree in electrical engineering, correct?
8 A. That is correct, yes.
9 Q. And you say engineering or physics, correct?
10 A. Yes.
11 Q. So a person of ordinary skill in the art and in the
12 '516 patent, in your opinion, wouldn't necessarily have
13 to have a degree in physics, correct?
14 A. No. Would not have to, no.
15 Q. How did you determine that two years of experience in
16 imaging systems, or studies of research relating to
17 light sources used in imaging systems was the correct
18 period of time?
19 A. It seemed about, sort of, the middle of the bell curve.
20 As with anything else, there's -- there are going to be
21 some people who are better earlier and some who are
22 lesser. So, for example, in my senior level optics
23 course, I would say the very best students, even
24 without experience, are probably capable. Whereas,
25 there are probably some people in this industry who

1 have had two years who would not be. So there's just
2 -- there's a distribution of abilities.
3 Q. Okay. So, when you refer to two years of experience,
4 you're referring to academic or industry experience,
5 correct?
6 A. Yes. Mm-hmm.
7 Q. Okay. So it's not an additional requirement on top of
8 the education? It would be --
9 A. Well, so as I --
10 Q. -- either education --
11 A. I'm sorry. I interrupted your question again.
12 Q. No. Go ahead. Go ahead.
13 A. I really apologize. So the last sentence, "Additional
14 education may supplement practical experience," so with
15 the bachelor's degree, you would expect either two
16 years of additional, you know, training, you know, in
17 either the master's or PhD program, or industrial, you
18 know, commercial experience, I think, would both be
19 relevant.
20 Q. And we're -- just to clarify for the record, we're
21 looking at paragraph 20 of your report, correct?
22 A. Yes.
23 Q. When you refer to imaging systems, can that be any type
24 of an imaging system?
25 A. Yes. Any optically-based imaging system, yeah. I

1 mean, there are some, like, ultrasound that would not
2 be relevant.
3 Q. What about X-ray?
4 A. Yeah. X-ray would probably be -- not be as viable.
5 Q. MRI?
6 A. Yeah. MRI is probably not relevant either for this,
7 magnetic resonance imaging. Although, someone with
8 training with MRI probably has the physics background
9 to, you know, make this an easy transition.
10 Q. Okay. What about PET, P-E-T, imaging?
11 A. Yeah. That is not really relevant to optics, but
12 again, someone who is a physicist on that has such a
13 wide physics background that they would probably find
14 it an easy transition to go into imaging, even if they
15 would not have the immediate skills at hand.
16 Q. So would you supplement your opinion as stated here in
17 paragraph 20 that the experience in imaging systems
18 should be experienced in optical imaging systems?
19 A. That could be, yes. That would make a reasonable
20 addition.
21 Q. Are there any other types of imaging systems that we
22 haven't discussed that you think would be sufficient
23 for a person of ordinary skill in the art in these '516
24 patents?
25 A. Not that I'm aware of at the moment.

1 Q. Is it your opinion that the state of the art with
2 respect to the '516 patent would not be materially
3 different in 2010 than it was in 2011?
4 A. Yes, that's true.
5 Q. Okay. And what's your support? What's the basis -- or
6 your support for that conclusion?
7 A. Well, most of the scientific principles and engineering
8 principles on fluorescence were really developed long
9 before 2010. And so it's really at this stage, you
10 know, at that stage of the level of fluorescence and
11 imaging technology, it's really more of design than new
12 concept invention. And so you could even back it up
13 before 2010 and it would have been reasonable as well.
14 Q. Okay. Let's look at page 5 of your report, Section B,
15 Claim Construction.
16 A. Mm-hmm.
17 Q. Do you see that?
18 A. Mm-hmm. Yes, I do.
19 Q. This section discusses the legal standards for claim
20 construction of the terms of the patent, correct?
21 A. Yes.
22 Q. Did you gain this understanding of the claim
23 construction standards from your counsel?
24 A. Partially. Since I had some prior patent experience, I
25 did have some idea of the claim construction process.

1 Q. But you understand that the process that a court
2 undertakes to construe a patent in a litigation can be
3 different than the prosecution of a patent with the
4 U.S. Patent and Trademark Office, correct?

5 A. Yes. I understand that now, yes.

6 Q. Okay. Talking about your patents for a moment, the
7 patents for which you're a named inventor, did you
8 participate in drafting either the claims or the
9 specifications of any of those patents?

10 A. Yes.

11 Q. Did you draft the claims themselves?

12 A. This is in reference to which patent?

13 Q. Any of them.

14 A. Any. Oh, yes, definitely.

15 Q. Okay.

16 A. In fact, I was the primary mover on a number of them.

17 Q. And did you work with an attorney in preparing your
18 patent applications?

19 A. Yes.

20 Q. Okay. And did you work with an attorney in
21 communicating with the patent office in those, with
22 respect to those applications?

23 A. Oh, yes, definitely. In fact, the attorneys did most
24 of the actual, you know, sending forms, and, you know,
25 all filling out stuff. Yeah.

1 Q. Okay.

2 A. We would give them a draft of the patent and claims,
3 and they would go with that.

4 Q. Okay. So going back to your report here on the claim
5 construction standards, you understand that claims are
6 presumed to have their plain and ordinary meaning to a
7 person of ordinary skill in the art, correct?

8 A. Yes.

9 Q. Okay. And that, generally, courts look to what's
10 called intrinsic evidence to provide support for the
11 plain and ordinary meaning of the terms in a patent,
12 correct?

13 A. Yes.

14 Q. Okay. Do you have an understanding of when it might be
15 appropriate to look at extrinsic evidence, for example,
16 expert testimony?

17 A. I do not know precisely legally the, you know,
18 criterion for that. I could guess that it would be
19 when the intrinsic evidence is insufficient to come to
20 a conclusion that you would want to look at extrinsic
21 evidence, but, again, that's my nonlegal speculation at
22 this point.

23 Q. And in your experience as someone who has applied for
24 patents and drafted patent claims and patent
25 specifications, what's your understanding of the word

1 embodiment as it's used in a specification?

2 A. The form that the invention could take.

3 Q. And the scope of an invention, you'd agree, is defined
4 by the claims themselves, correct?

5 A. Yes.

6 Q. So you'd agree that it's generally not appropriate to
7 limit the scope of the claims to a particular
8 embodiment disclosed in the specification, correct?

9 A. Yes.

10 Q. You've reviewed at least two different sources of
11 extrinsic evidence or evidence outside the patent in
12 this case, correct?

13 A. Can you specify the two?

14 Q. Yes. If you want to look back to Exhibit C to your
15 report.

16 A. Mm-hmm.

17 Q. Which is Exhibit 2 to your deposition.

18 A. Yes, I see it. Thank you.

19 Q. Do you see the section at the bottom, Other Resources?

20 A. Oh, yes. Uh-huh.

21 Q. And that lists a Merriam-Webster Dictionary and an IEEE
22 definition --

23 A. Yes.

24 Q. -- standard, correct?

25 A. Yes.

1 Q. Did you review any other sources, outside of the
2 patent's claim specification, applications and
3 prosecution history, in forming your opinions?

4 A. Well, yes, a number, not all of which actually helped
5 forming, but I've consulted many materials.

6 Q. Okay. What else --

7 A. Well --

8 Q. -- did you look at?

9 A. As an example, for the word diffuser, like the IEEE
10 definition here for surface-mount, it's nice to have a
11 definitive source based on engineering standards. And
12 the word diffuser, I was hoping that the Optical
13 Society of America or similar optical organization
14 would have a standard definition that was used for
15 diffuser, but I was unable to find one. It's not to
16 say there isn't one, but I was just unable to find it.

17 Q. Did you consort any other -- strike that.

18 Did you consult any other sources of extrinsic
19 evidence such as academic papers, standards,
20 dictionaries, technical dictionaries?

21 A. Yes. I did consult a number of academic papers and
22 some other sources as well.

23 Q. Okay. Those aren't listed in Exhibit C, though,
24 correct?

25 A. No. They weren't, and they would be quite voluminous.

1 You know, some of these papers are things that I was
2 already aware of, but just, you know, in background
3 material. So...

4 Q. Did you rely on any of those sources in forming your
5 opinions in this case?

6 A. As background material, yeah, but not primary sources,
7 no.

8 Q. Okay. Looking at -- I'll just stay on Exhibit C for a
9 moment, your list of materials considered. The IEEE
10 Standard C37.20.10-2016.

11 A. A mouthful.

12 Q. Etcetera. That's a -- that's a specification, or
13 rather a standard with definitions that is dated 2016,
14 correct?

15 A. Yes.

16 Q. So that's five to six years after the time period that
17 we're looking at for the state of the art of the '516
18 patent, correct?

19 A. That is true, but the standard usage of the term
20 surface-mount has been long prior to 2010.

21 Q. Okay. And I gather you couldn't find an earlier
22 version of this standard to refer to?

23 A. Actually, I didn't really look for an earlier version.
24 I just looked at this one.

25 Q. Okay.

1 A. But, again, surface-mount technology is not within the
2 last 15 years since.

3 Q. Did your counsel provide you with a copy of this
4 standard?

5 A. I looked up the standard online myself, but then it
6 required purchasing. And so Mr. Perry then went ahead
7 and purchased the document.

8 Q. Understood. What about the Merriam-Webster Dictionary?
9 Is that a source you located on your own or that was
10 provided to you by counsel for Scintica?

11 A. I have a copy of Merriam-Webster's Dictionary, yes.

12 Q. I think I asked a slightly different question, which
13 is, did you consult that dictionary in forming your
14 opinions? Was it your decision to consult that
15 dictionary?

16 A. I -- I can't remember that.

17 Q. Okay.

18 A. I just don't remember.

19 Q. Okay. Okay. You can close or set aside Exhibit C.
20 Let's go back to your report.

21 A. Okay.

22 Q. Exhibit 3. Okay. Looking to the bottom of page 5, top
23 of page 6, in paragraph 28.

24 A. Mm-hmm. Yes.

25 Q. You state, "I understand that the intrinsic evidence

1 only compels departure from the plain meaning of the
2 claim terms in two situations, when the patentee acts
3 as his or her own lexicographer or if the patentee
4 disavows claim scope."

5 Do you see that?

6 A. Yes, I see that.

7 Q. Okay. Do you have an understanding of what it means to
8 disavow claim scope?

9 A. That means that at some point, either in the patent
10 specification or during the prosecution of the patent,
11 that the applicant states that my patent is not this.

12 Q. Okay. And you received that understanding from your
13 counsel, correct?

14 A. Yes.

15 Q. And are you offering an opinion in this case that the
16 applicant for the '516 patent disavowed claim scope
17 during prosecution?

18 A. Yes, they did.

19 Q. Okay. Let's move down to finally the Claim
20 Construction Opinions.

21 A. Okay.

22 Q. The Section 4, that begins around the middle of page 6
23 of your report. Do you see that?

24 A. Yes, I see that.

25 Q. Okay. And here you stated that claim term number 1 is

1 "a housing defining a central opening therein and a
2 plurality of lamp receptacles surrounding the central
3 opening," correct?

4 A. Yes. Mm-hmm.

5 Q. Okay. What is your understanding of how a person of
6 ordinary skill in the art would define the term
7 "housing" outside the context of this '516 patent?

8 A. Well, that was actually one of the words that needed
9 redefining because, you know, housing, we use it for a
10 great many things outside of the '516 patent, and the
11 authors -- sorry. The applicants themselves use, in
12 some parts of the patent, the term, "main body member."
13 And so I lifted their terminology and thought that was
14 useful for part of the analysis.

15 Q. Okay. Do you have an understanding of what the term
16 main body member means as used in the '516 patent?

17 A. Unified mechanical construction. It's a...

18 Q. So is it your opinion that the term "housing," as used
19 in the '516 patent, should not be given its plain and
20 ordinary meaning?

21 A. Yes. I think it should be another phrase used by the
22 applicants, should be used in its place, yes. Main
23 body member.

24 Q. So it's your opinion that the inventor acted as his own
25 lexicographer here?

1 A. I think the term was imprecise. I mean housing is a
2 somewhat imprecise term. And I thought that the
3 applicant used main body member as a -- as more precise
4 than housing.

5 **Q. Okay. But the term "main body member" doesn't appear**
6 **in the claims, correct?**

7 A. No, it does not. It appears in the patent
8 specification, but not in the claims.

9 **Q. Okay. So what's your justification for substituting**
10 **main body member for the term housing in the claims?**

11 A. Because housing can be unclear in some contexts.

12 **Q. In what way is it unclear in the context of the '516**
13 **patent to a person of ordinary skill in the art?**

14 A. Because the term housing does not draw the --
15 necessarily draw the reader's attention to the -- the
16 construction that defines the central opening and the
17 plurality of lamp receptacles. It has a more vague
18 meaning of something that surrounds, you know. So, in
19 other words, the -- you know, this room is a housing.
20 You can put a cover over something and be a housing.
21 And so the main body member more properly -- and,
22 again, the author's own -- the applicant's own wording
23 for their invention.

24 **Q. Well, it wasn't the applicant's own wording for the**
25 **invention because the applicant used the term housing,**

1 **right?**

2 A. Yes. For their -- their wording in parts of the patent
3 specification. Yes.

4 **Q. Do you have an understanding of what the plain and**
5 **ordinary meaning of the term housing is in fluorescent**
6 **imaging generally?**

7 A. Again, housing is just a surrounding. Housing,
8 basically, is something that -- when you say housing,
9 housing has so many meanings that it can actually be
10 ambiguous.

11 **Q. It can take many different forms?**

12 A. Yes.

13 **Q. Correct?**

14 A. That's right.

15 **Q. Same question. Do you have an understanding of the**
16 **plain and ordinary meaning of the term housing in the**
17 **context of a light source assembly?**

18 A. Housing in the terms of the light source assembly. In
19 reference to the '516 patent, the housing has a very
20 specific meaning. It is -- in regard to the light
21 source assembly.

22 **Q. I'm sorry. I meant generally, in terms of an imaging**
23 **system or a light source assembly in an imaging system.**

24 A. Right. The light source assembly is the structure that
25 holds -- well, so this is where you go -- a light

1 source assembly would be -- of an imaging system would
2 be an assembly that contains all the light sources of
3 the system.

4 **Q. And you'd agree that there can be many different**
5 **embodiments of that, of that structure, correct?**

6 A. Of that structure in the '516 patent, it takes the form
7 of a single unified structure that contains all the
8 light sources, plus also gives a direction to the
9 camera. And there's no -- very little, in fact, none,
10 ambiguity about that aspect of it.

11 **Q. Okay. So what portions of the specification support**
12 **your conclusion that housing should be defined as a**
13 **main body member?**

14 A. Okay. Well, we can go through -- let's go step by
15 step. Let's go to paragraph 32. So in the patent
16 prosecution, the plaintiff -- or the applicant argued
17 that the housing defines the plurality.

18 **Q. I'm sorry. I'm sorry to interrupt you, but that's not**
19 **quite the question I asked you.**

20 A. Okay.

21 **Q. I'm asking if you could look at the specification of**
22 **the patent itself, please, rather than the prosecution**
23 **history.**

24 A. Okay.

25 **Q. Can you show me where --**

1 A. Yeah.

2 **Q. -- in the specification?**

3 A. Yeah. Okay. So that would be paragraph 35, patent
4 specification confirms the housing defines the lamp
5 receptacles. And so what you've got is a person of
6 ordinary skill in the art would consult the '516 patent
7 to understand what the housing 14 to define a plurality
8 of lamp receptacles means.

9 So if we refer to Figure 1 here, you can see that
10 -- and let me call attention to Figure 1 on page 8 of
11 the report. This is a figure in the patent as well.
12 And so I will refer to this housing defined as
13 member -- as basically as number 14 in the patent. It
14 has a number of holes through it for various light
15 sources, and it also has a circular opening in the
16 center. The housing surrounds that circular opening,
17 and, indeed, defines the plane in which through, such
18 that a camera can look through it.

19 So we have a unified assembly for light sources and
20 camera defining the direction of the camera, not
21 actually holding the camera.

22 **Q. Okay. And then continuing into paragraph 36 --**

23 A. Mm-hmm.

24 **Q. -- and 37, you refer --**

25 A. Yeah.

1 Q. -- to Figures 5, 6, correct?

2 A. Yes, that is correct.

3 Q. Okay. So is it your opinion that the definition of

4 housing, as used in the '516 patent, should be limited

5 to the embodiments shown in Figures 1, 5, and 6?

6 A. No, of course not. In fact, it specifically gives

7 other ones. For example, Embodiment 3, where you --

8 which is numbered under 200s, is another example. But

9 the key features that you got a single mechanical

10 construction that defines both a central opening by its

11 structure and the light source, the holes in which the

12 light source is in, that is going to be characteristic

13 of all embodiments. Otherwise, you'd be going against

14 the teaching of the patent.

15 Q. Okay. So I omitted Figure 3. So let me just ask that

16 question again.

17 Is it your opinion that the term housing, as used

18 in the '516 patent, should be limited to the embodiment

19 shown in Figures 1, 3, 5 and 6?

20 A. No. You -- as you said, you omitted the other

21 embodiment. So, for example, the 200, which I believe

22 was referred to as Figure 12 here in the cross section,

23 and Figure 13, these would also be considered housings.

24 Q. Okay. So is it your opinion that the term housing, as

25 used in the '516 patent, should be limited to the

1 specific embodiments shown in the figures in the

2 patent?

3 A. The -- the housing is defined as a unit, single

4 mechanical unit with a central opening and several

5 holes -- or many holes through it -- or at least more

6 than one hole around it, and the housing defines both

7 those holes and the central opening.

8 And I'm sure you can -- we can all think of many

9 embodiments that might have those characteristics, but

10 those are the key features of that part of the patent.

11 And so all the --

12 Q. I'm sorry. Finish your answer.

13 A. So all -- so the mechanical structures that had that,

14 single unified mechanical structures that had this

15 aspect would fit in with the claim.

16 Q. Okay. So there may be other embodiments that are not

17 shown in the figures in the '516 patent?

18 A. Yes.

19 Q. Correct?

20 A. Yes.

21 Q. This claim term number 1, going back up to page 6, if

22 you want to refer to your report.

23 A. Okay.

24 Q. Paragraph 30.

25 A. Okay. Thank you.

1 Q. This claim term appears in claims 4, 12, 13, 16 and 24,

2 correct?

3 A. Yes.

4 Q. And independent claim terms 1 and 14?

5 A. Or the phrase "said housing" is in those.

6 Q. Yes. Yes. Understood. Okay. Yeah, I was being

7 imprecise there.

8 This claim term appears in claims 1, 14, and as

9 "said housing" in the dependent claims, correct?

10 A. Yes, that's correct.

11 Q. Okay. This claim term does not appear in independent

12 claim 25, correct?

13 A. That is correct, yes.

14 Q. In your opinion, Dr. Talghader, what does it mean for a

15 housing or a main body member -- according to your

16 definition --

17 A. Mm-hmm.

18 Q. -- what does it mean for that to define a central

19 opening?

20 A. Well, it's a geometrically unified structure that has

21 openings in it in this case, to -- such that the

22 mechanical structure of the housing or main body

23 member, depending on which claim version you're looking

24 at, are actually geometrically delineated by the

25 mechanical structure. So this would involve, at least

1 partially, the structure itself, outlining, delineating

2 those features.

3 Q. And that's what a person of ordinary skill in the art

4 would understand the term define to mean in that

5 context, right?

6 A. Yes.

7 Q. Okay. What's your understanding, Dr. Talghader, of

8 what it means for a housing to define a plurality of

9 lamp receptacles?

10 A. That would mean that the delineation I was just

11 referring to referred to more than one light

12 receptacle.

13 Q. And, again, that would be the understanding of a person

14 of ordinary skill in the art, correct?

15 A. Yes.

16 Q. Let's look at a different portion of your construction

17 of this term. We've been talking about the term

18 housing --

19 A. Mm-hmm.

20 Q. -- and defining its central opening therein. Let's

21 look at the second half of that claim term, "a

22 plurality of lamp receptacles surrounding the central

23 opening." Do you see that?

24 A. I'm sorry. Which page are you on now? I'm sorry.

25 Q. I'm just looking at claim term number 1.

1 A. Okay.

2 Q. The second half of claim term number 1.

3 A. Oh. Oh. And the plurality of lamp receptacles

4 surrounding the central opening?

5 Q. Correct.

6 A. Okay.

7 Q. Okay. And if you'd like to refer to it so you have

8 something to look at, I believe on page 15 of your

9 report --

10 A. Mm-hmm.

11 Q. -- you provide a reproduction of the proposed

12 construction of the -- of the entire claim term,

13 correct?

14 A. Yes. Mm-hmm. Yes.

15 Q. Okay. So, with respect to the second half of that

16 claim term, "a plurality of lamp receptacles

17 surrounding the central opening" --

18 A. Yes.

19 Q. -- the proposed construction is "a plurality of holes

20 in the member that encircle the opening," correct?

21 A. Yes.

22 Q. Okay. Is the reference to "the member" in that

23 construction intended to reference the main body member

24 at the beginning of the construction?

25 A. Yes.

1 Q. Okay. Let's break that down a little bit.

2 So the answer to my question is that, yes, the

3 applicant did act as his lexicographer with respect to

4 the term lamp receptacle, correct?

5 A. The applicant always used the term in the same way

6 throughout the patent. So I'm not sure if it quite

7 reached that -- reaches that definition.

8 Q. Okay. Let me -- let me ask it in a different way.

9 What is your understanding of what the plain and

10 ordinary meaning of the term lamp receptacle is?

11 A. An opening that would receive a lamp, a hole that would

12 receive a lamp.

13 Q. But it's your opinion that the applicant of the '516

14 patent is not using the term lamp receptacle according

15 to its plain and ordinary meaning, right?

16 A. Well, he started off using hole as the thing, and

17 consistently throughout, he's, you know, kept to that,

18 you know, definition. So my definition is no different

19 than what the applicant is using in all of his sources.

20 Q. But what I'm trying to understand is, is there another

21 definition, outside of what the applicant has used,

22 that a person of ordinary skill in the art of

23 fluorescent imaging systems in 2010 would understand

24 term lamp receptacle to mean?

25 A. It's just ambiguous because there are other outside

1 Q. And then you've replaced the term from the patent

2 claim, "lamp receptacles," with the term "holes,"

3 correct?

4 A. Yes. Yes.

5 Q. Okay. So is it your opinion that the inventor of the

6 '516 patent acted as his own lexicographer with respect

7 to the term "lamp receptacles"?

8 A. The patent and the patent history -- so the original

9 application had the word holes in it, elongated holes,

10 for the receptacles. And then consistently throughout

11 the prosecution history, from beginning to end, the

12 applicant always used holes as the -- as lamp

13 receptacles. There's never any indication that there

14 are any other -- any other meaning for that.

15 And one of the reasons that I felt that receptacles

16 was a little ambiguous is, again, it has a meaning to

17 us outside the terms of the '516 patent, where

18 oftentimes, for example, in wall plugs, you'll hear

19 receptacles, where you'll have wires into them. And I

20 just wanted to emphasize that this is much closer to

21 its technical definitional meaning of something that

22 receives. You know, it doesn't have other stuff in it.

23 You know, and it has a hole, and, you know, it's in the

24 original application, and throughout the prosecution

25 it's always been consistent with that.

1 meanings for people, that, again, for example, wall

2 plugs, as I, you know, referred to before, sometimes

3 wires are stuck in the wall plugs, and they're -- it's

4 not really -- and so that's oftentimes considered a

5 receptacle. But a receptacle in its normal

6 definitional meaning is just opening. And so I just --

7 I thought it was ambiguous. That's all. Just thought

8 with clarity on the hole would clarify what was meant.

9 Q. So it's your opinion that a person of ordinary skill in

10 the art reading the '516 patent would think that the

11 term "lamp receptacle" is ambiguous or imprecise?

12 A. Receptacle, yes, would have been -- potentially meant

13 -- potentially might have meant other things.

14 In reading the patent, the term "hole" -- hole

15 seems to be a better -- kept on what the applicant

16 meant all throughout the patent prosecution history.

17 Q. Okay. But you didn't define the term receptacle. You

18 defined the term or construed the term "lamp

19 receptacle," right? Your construction is not "lamp

20 holes," correct?

21 A. But the ambiguity --

22 Q. That wouldn't make any sense, right?

23 A. Right. The ambiguity is in the word "receptacle."

24 Q. Okay. But you've taken the term from the claim --

25 A. Mm-hmm.

1 Q. -- the two words, "lamp receptacle."
 2 A. Yes. But you don't --
 3 Q. And you've replaced that with "hole," correct?
 4 A. I'm sorry. I interrupted you again. I've got to stop
 5 doing that.
 6 Yeah. So, as you pointed out, grammatically, the
 7 word "lamp hole" doesn't really make sense. And so
 8 that lamp receptacle, so I didn't make it "lamp hole"
 9 simply for the reasons you point out, is grammatically
 10 it's not appropriate English to do so. So you've had
 11 to alter the wording in some way.
 12 Q. Okay. But you'd agree that there are many different
 13 types of holes, even within the field of fluorescent
 14 imaging, that are not necessarily for receiving a light
 15 source or a lamp, right?
 16 A. Yes, of course. Yeah, of course.
 17 Q. Okay. Okay. Looking at your report again on this
 18 portion of the construction, I believe, it begins
 19 around page 11.
 20 A. Yes.
 21 Q. Under the section, "The plurality of lamp receptacles
 22 are holes."
 23 A. So I see this section. What is it the beginning of
 24 again?
 25 Q. I'm referring to the section of your report that

1 provides opinions on this construction we've been
 2 discussing.
 3 A. Lamp receptacles. Okay. Yes. Uh-huh.
 4 Q. The support for your opinion. And here you're citing
 5 to descriptions of Figures 1, 3, 5 and 6, correct?
 6 A. Yes.
 7 Q. So is it your opinion that the term "lamp receptacles"
 8 or "receptacles" should be limited to what's shown in
 9 those figures?
 10 A. These are only -- so this is Figures 5 -- 1, 3, 5 and
 11 6. So this is all the first embodiment. This is just
 12 one embodiment. So it's not just this embodiment that
 13 gives me that opinion. It's the entire patent, plus
 14 prosecution history that makes holes a better
 15 interpretation. As you say, only one embodiment is
 16 only one embodiment.
 17 Q. So there could be other embodiments not shown in the
 18 '516 patent that would be consistent with your
 19 construction, right?
 20 A. Only ones that treat the word "receptacle" as "hole,"
 21 without additional electronics, etcetera.
 22 Q. But you would agree with me that, at a minimum, that
 23 patent claims should be construed to cover the
 24 embodiments presented in the specification, right?
 25 A. Yes.

1 Q. Okay. So is it your opinion that the plain and
 2 ordinary meaning of "receptacle" that you provided
 3 earlier is something that receives, an opening, that
 4 that would exclude the embodiment shown in the '516
 5 patent?
 6 A. I'm sorry. I keep over -- I'm really sorry, I'm
 7 answering too early.
 8 So the -- again, the ambiguity is not in the
 9 opening part. The ambiguity is in sometimes receptacle
 10 is used in other aspects outside the '516 patent that
 11 have electrical connections or other objects within
 12 them, you know, besides the simple mechanical hole.
 13 And that's not indicative of the '516 patent. So,
 14 again, I was just removing an ambiguity in that word.
 15 Q. Okay. So, for example, in paragraph 44 of your report,
 16 you provide your opinion of what you -- you state would
 17 be a person of ordinary skill in the art's
 18 understanding of an electrical power receptacle, right?
 19 A. Mm-hmm. Or electrical power given to a receptacle.
 20 Q. Okay. But you provide here what your understanding is
 21 of the plain and ordinary meaning of an electrical
 22 power receptacle, right?
 23 A. Yes. Or as it is commonly used in -- you know, to us.
 24 If you want to be technical, the receptacle is only the
 25 box that the plug outlet goes into. But oftentimes

1 there's wires leading into it, and people call that the
 2 receptacle. That's why the ambiguity was there that I
 3 thought needed to be removed.
 4 Q. Okay. And you say here that a person of ordinary skill
 5 in the art of the '516 patent would understand that an
 6 electrical power receptacle provides; one, electrical
 7 connection; two, mechanical retention; and, three, a
 8 vacancy or space such as for an electrical plug or a
 9 light bulb, as examples, to fit in.
 10 A. Yeah, in common --
 11 Q. Do you see that?
 12 A. Yes. In common usage, yes. That is the way that an
 13 electrical receptacle is defined.
 14 Q. Okay. If we were to take your definition of electrical
 15 power receptacle --
 16 A. Mm-hmm.
 17 Q. -- and apply that to the term "lamp receptacle" as used
 18 in the '516 patent claims, is it your opinion that that
 19 would exclude the embodiments that are shown in the
 20 patent?
 21 A. Could you rephrase the question?
 22 Q. Yeah. In other words, the embodiments shown in the
 23 '516 patent, you know, Figures 1, 5 and 6, for
 24 example --
 25 A. Yeah. Mm-hmm.

1 Q. -- are the lamp receptacles shown in those embodiments,
2 would they qualify under your definition of an
3 electrical power receptacle?
4 A. Electrical power receptacles aren't covered by the
5 patent in any way. At no stage in the patent
6 prosecution history did they ever include electrical
7 connections in their receptacles.
8 Q. But the '516 patent does disclose light sources that
9 are connected to a circuit board, correct?
10 A. Yes, that's true. That's Item 64 --
11 Q. Okay.
12 A. -- in the patent drawings.
13 Q. And that could include a mechanical retention, correct?
14 A. The circuit board? I'm sorry. What did -- you're
15 referring to the circuit board?
16 Q. Could that include mechanical retention?
17 A. I'm not sure that I understand the question or
18 reference.
19 Q. Okay. Well, let's take the third part of your
20 definition. You would agree that the embodiment shown
21 in the '516 patent include a vacancy or space for a
22 light source to fit in, right?
23 A. Vacancy or space. This is the -- so when you say the
24 third part of the definition, which words are you
25 referring to? I'm kind of having the...

1 Q. In paragraph 44 of your report, on page 14.
2 A. Okay. Okay.
3 Q. You provided a three-part definition of an exemplary
4 type of receptacle, an electrical power receptacle,
5 right?
6 A. A hole, void or space in the housing. Is that...
7 Q. Yes. The vacancy or space or void.
8 A. Right. A hole, void or space. Yes, I agree with that.
9 Mm-hmm.
10 Q. Okay. So at least in that respect, according to your
11 opinion, the lamp receptacles disclosed in the '516
12 patent would not differ from the electrical power
13 receptacles, vacancy or space for the light bulb to fit
14 in?
15 A. Well, without the electrical connections, it's just an
16 open hole, void or space, then, yes.
17 Q. Right.
18 A. Without the electrical connection.
19 Q. Okay. Let's take a look at the third part of your
20 construction of claim term number 1. If you look back
21 at page 15 of your report.
22 A. Okay.
23 Q. Do you see the last phrase in that claim term is,
24 "surrounding the central opening"?
25 A. Yes, I see that.

1 Q. And the proposed construction for that portion of the
2 claim term is that encircle the opening, correct?
3 A. Yes.
4 Q. Okay. Can you point me to where in your report there
5 is support for substituting the word surrounding with
6 the word encircle?
7 A. Again, this is just a -- in reference to all of the
8 prosecution history. Surround gives the impression
9 that -- surround can mean -- be a three-dimensional
10 structure. Okay. So you can surround in all
11 directions.
12 It's very clear in the patent and patent history
13 that they're referring to, you know, encircle, you
14 know, basically around the central opening in
15 essentially a two-dimensional plane. And so that's
16 really where this, you know, comes from.
17 Q. And you're referring to the embodiments shown in the
18 figures in the patent and the application history --
19 A. Well, no. The --
20 Q. -- correct?
21 A. I mean, that is one part of it, but the rest of the
22 patent, you know, from specification to prosecution
23 history, it's always referred to in that -- in that
24 manner.
25 Q. Can you show me an example, outside of a description of

1 the figures, that would support that construction?
2 A. In the prosecution history, or in the patent?
3 Q. In your report anywhere. In your report.
4 A. We're talking about the definition of whether we use
5 the word "encircle" or "central opening"?
6 Q. Yeah.
7 A. So I guess, my...
8 Q. Let me back -- I'm sorry. Go ahead. Let me back up a
9 little bit.
10 We've talked about a couple of different portions
11 of your construction of claim term number 1. We've
12 talked about housing. We've talked about lamp
13 receptacles.
14 A. Right.
15 Q. There's a third part. And this part of your
16 construction doesn't have its own section in the
17 report.
18 A. Right.
19 Q. I can't find the analysis --
20 A. Yes. Okay.
21 Q. -- that would support your construction of this term.
22 A. Right.
23 Q. So I'm trying to understand --
24 A. I see.
25 Q. -- what is the basis for your conclusion, because it's

1 not stated in your report.

2 A. Okay. Thank you. Yes. Now I understand what you're

3 meaning. I apologize.

4 So the word surround has a connotation of

5 three-dimensional structure. The patent clearly -- and

6 it's both its file and the prosecution history, is

7 talking about a two-dimensional structure because the

8 third dimension would be nonsensical.

9 If you were going to put holes encircling an

10 opening, you'd basically have to have mechanical

11 structure on the top, and you're basically covering the

12 top and bottom where the camera's supposed to be. And,

13 so, clearly, there's not going to be mechanical

14 structure blocking the camera in any way. And, so,

15 encircle is just a better representation of the term

16 surround here. I mean, it's just a logical consistency

17 that you want to maintain.

18 **Q. Is it your opinion that -- okay.**

19 So you said the word surround has a connotation of

20 a three-dimensional structure, right?

21 A. It can. It can, yes. And, again, it's an ambiguity,

22 which is why I chose a different word.

23 **Q. So you think the word surround is ambiguous?**

24 A. Again, it -- when it implies a third dimension there

25 that is blocking the camera optical access, it's just a

1 of that, you know.

2 **Q. I see. So you're reading the word surrounding, and**

3 **you're talking, essentially, about the difference**

4 **between a sphere and a circle, right?**

5 A. Yes, largely. I mean, there are other shapes that we

6 could talk about for this, but that is a good example.

7 **Q. And is it your opinion that the word surrounding should**

8 **be -- that the plain and ordinary meaning of the word**

9 **surrounding would be surrounding on all sides in a**

10 **three-dimensional space?**

11 A. It could be. Again, it's ambiguous. I mean, that word

12 is ambiguous, and that's why I decided to change it

13 with encircle.

14 **Q. Okay.**

15 A. It's just, you know, to clarify. It isn't going to

16 block the camera.

17 **Q. Are there other understandings of the word surrounding**

18 **that would not require surrounding on all sides, three**

19 **dimensionally?**

20 A. I mean, if you look at the Merriam-Webster Dictionary,

21 it says it means to enclose on all sides, envelop.

22 So I would say that the -- using the standard

23 dictionary definition, you would probably choose

24 encircle, rather than surround.

25 **Q. Okay. And you believe it's appropriate to use a**

1 logical inconsistency. I mean, no optical system could

2 work that way. You know, you have lamps in front of

3 your camera, and it's just not going to work.

4 **Q. Sorry. I'm not an engineer and I'm processing your --**

5 **your response.**

6 So is it your opinion that surrounding, as used in

7 the '516 patent, in this claim term, means that the

8 housing has to be on a single plane?

9 A. Arranged more or less along the single plane, because

10 again, let me -- let me be a little clearer here.

11 So with the figure -- and let me just make sure

12 that my hands are visible to the camera.

13 So if we have an enclosure looking like this,

14 essentially the main body member right here. Okay?

15 Then there's a central opening that defines where the

16 camera goes. So if you had --

17 **Q. Mm-hmm.**

18 A. -- a structure that surrounds, surrounding, where

19 you're using the three-dimensional meaning of surround,

20 what you're doing is you're putting lamps above and

21 below the structure. And then your camera's trying to

22 look through the lamps. That just doesn't make any

23 sense.

24 **Q. Mm-hmm.**

25 A. So, you know, this is just a less ambiguous definition

1 dictionary definition here to clarify what you see as

2 an ambiguity in the patent?

3 A. In the terminology. I don't think any expert, you

4 know, any person skilled in the art who's reading the

5 patent and the claims, would ever come to the

6 conclusion that you want lamp receptacles in the path

7 of the camera. And so I think that anyone skilled in

8 the art who is looking at it would not be quibbling

9 about encircle here. I think it's a reasonable

10 interpretation.

11 **Q. Mm-hmm. Could a lamp receptacle surround a camera on**

12 **two sides?**

13 A. Can you guide me there? Sorry. When you say two

14 sides, so are we talking about -- you know, are we just

15 taking a camera now in isolation, or are we referring

16 it into the body of the structure -- of the patent?

17 So we're outside the patent or inside the patent?

18 **Q. Let's just speak generally, outside the patent.**

19 A. Okay.

20 **Q. According to the knowledge of one of ordinary skill in**

21 **the art of fluorescent imaging, would it be possible to**

22 **surround a camera on two sides with light sources?**

23 A. No. If you're -- if you're surrounding the camera, you

24 have at least -- you know, and I'm going to use a box

25 as an example. You've basically got, you know, your X,

Y, and Z axis, and you want to cover two sides of each, and so you're going to have -- if you're using a box and your light sources and you want to surround the camera, then you're surrounding it.

Now, if you're encircling the camera or using a two-dimensional definition of surround, then you will need four sides, you know, or at least partially defined four sides.

Q. Using your definition of a two-dimensional surround --

A. Encircle.

Q. Or encircle.

A. Yeah.

Q. Could you have lamp receptacles or light sources surrounding a camera on what you called both the X and the Y axis?

A. So if we're going to say that the camera is pointing along the Z axis, then you're talking about if you're going to basically encircle, you know, the two-dimensional surround, what you would want is, essentially, light sources that essentially map out that two-dimensional plane, define it, and, essentially, allow a closed -- a curve that can be represented as closed by just looking at the geometrical shape.

So, in other words, it's okay -- like the

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applicants use a C shape, you know. That C defines the surround, you know -- or encircle, I should say there, even though it's got a gap on the side.

But clearly there's a mechanical structure that takes the large part of that geometry and actually covers it so that, oh, yeah, here's the center and, you know, that. Yeah.

Q. Yeah. You actually anticipated right where I was going with that because you were talking about a closed circle. And as you pointed out, there are embodiments in the patent that show a C shape or open --

A. Mm-hmm. Yeah.

Q. -- curved --

A. Exactly. But the geometry --

Q. -- structure, correct?

A. The geometry defines the circle still. In other words, you know --

Q. Okay.

A. You know, it takes no problem, not even -- you don't even need to be a person skilled in the art to look at that and close the circle. You know, if you were going to write a pencil, you know, around the circle opening, you could just finish it off with the C.

Q. But you'd agree then that there aren't light sources on all sides in that case?

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A. Not at every single angle. There is no side to a circular aspect, but you've defined so much of the circle that it's easy to, you know, finish off.

So, in other words, very clearly, your geometry is defining a circular opening.

Q. Okay.

A. And, you know, it's --

Q. So how far would you have to take that circle for it to still fall within the meaning of the claims? Could you have a half circle?

A. Well, that's a -- so actually you need just a bit more. So I'm going to use a mathematical definition.

So if you use a half circle and you extend the line out to infinity, it never closes. But if you go beyond, just a little bit beyond, then all of a sudden the slope of the line on the top surface starts triggering downward and you're -- you know, you're going sideways on this one. And so if you're just a bit more than half of a circle, they will always meet. Okay. And so, in other words, define that closed shape.

So I'm not going to say, you know -- so, rigorously, that's a mathematical definition of the structure that we do it in.

Q. Okay.

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A. So a bit more than a half circle, I would say, would define the circular opening.

Q. Okay. And you're talking -- when you talk about a closed shape, in that context, you're talking about the shape that's created by the light, correct?

A. Okay. Sorry. What do you mean by the shape created by the light?

Q. You were talking about the light as extending along these various angles in the lamps, right?

A. Oh, oh. So, yeah. So you've got lamps. So here's the circular opening, and your lamps are here. And so there's various angles from the center to the various lamps.

Q. Right.

A. Okay.

Q. And it was still -- you're saying the shape would still be closed because --

A. Yeah, yeah. In other words --

Q. -- the light is converging at some point from both sides?

A. -- it's enough to define the --

THE REPORTER: The light is converging and at some point what?

MS. JENKINS: From both sides.

MR. PERRY: Be sure to let her finish her

1 question.

2 THE REPORTER: You can answer. You need to

3 answer that.

4 THE WITNESS: Oh. Oh, I'm sorry. Sorry.

5 Can you repeat the question? I got distracted. Sorry

6 about that.

7 **Q. (MS. JENKINS) So you have an open circle or C shape.**

8 A. Mm-hmm.

9 **Q. Then you don't have lamps on all sides. But you're**

10 **saying it's still a closed shape because the light is**

11 **converging at some point from both sides?**

12 A. Well, no. What you're saying is the geometry of that

13 shape still defines a closed circle in this case.

14 **Q. Okay.**

15 A. Okay. You know, the lamps are, you know, all -- you

16 know, around. They're not in that area, but, again,

17 you can definitely determine where the central opening

18 is and what its center is from that shape.

19 MR. PERRY: Counsel, I was going to suggest

20 that if you're at a break point or near a break point,

21 we're kind of getting to that lunch hour, and we could

22 take a break just.

23 MS. JENKINS: Yeah. Actually, I'm at a good

24 stopping point. So if you'd like to take a lunch, that

25 would be great. I don't think I have too much more,

1 but I can't make any promises. So we should probably

2 go ahead and break.

3 MR. PERRY: Okay. Sounds good.

4 THE WITNESS: Thank you.

5 MR. PERRY: Thanks.

6 THE VIDEOGRAPHER: We're going off the

7 record. The time is now 12:14 p.m.

8 (Break taken from 12:14 p.m. - 1:05 p.m.)

9 THE VIDEOGRAPHER: We're back on the record.

10 The time is now 1:05 p.m.

11 BY MS. JENKINS:

12 **Q. Welcome back, Dr. Talghader.**

13 A. Oh, thank you.

14 **Q. During the break for lunch, did you discuss the**

15 **substance of your testimony with your attorney?**

16 A. I -- my attorney reemphasized the fact that I do not

17 interrupt you because, apparently, I answered a

18 question where you still had some words that changed

19 the meaning of the question, and I need to be extremely

20 careful of that. And so it's disrespectful to you.

21 And I'm just a little nervous, so I apologize.

22 **Q. It's okay. I appreciate that. And, yeah, sometimes I**

23 **may pause for a moment, but, yes, I appreciate you just**

24 **kind of waiting until I finish my question. And I know**

25 **you're a professor by trade, so you're used to...**

1 A. I'm used to answering quickly. So...

2 **Q. Yes, that's right.**

3 All right. So, before the break, we were talking

4 still about claim term 1, and we're looking at the

5 section of your report that deals with that.

6 A. Mm-hmm. Yes.

7 **Q. So, if you could, please, go back to Exhibit 3 to your**

8 **deposition, which is your report.**

9 A. Exhibit 3? Is that what you said? Oh.

10 MR. PERRY: Your report is Exhibit 3.

11 THE WITNESS: Oh. Oh.

12 **Q. (MS. JENKINS) I'm just looking at your final report.**

13 A. Oh, sorry.

14 **Q. Your report.**

15 A. I'm sorry. I'm looking for Exhibit 3 in the report.

16 I'm like, I don't remember any Exhibit 3.

17 **Q. I'm sorry. Yeah. It's much easier when we have the**

18 **court reporter there to stamp things. When we do it**

19 **remotely, it's a little bit -- a little bit more**

20 **cumbersome.**

21 But what's been marked as Exhibit 3 to your

22 deposition is the claim construction report that you --

23 A. Yes.

24 **Q. -- issued in this case on October 17th.**

25 Do you have that open in front of you, or a hard

1 copy in front of you?

2 A. Yes, I do.

3 MS. JENKINS: Okay. So we were talking

4 about the particular embodiment in the '516 patent

5 that's shown in Figure 12. And also, let's see --

6 let's go ahead and mark the '516 patent itself as an

7 exhibit to your deposition so you can have that in

8 front of you. I understand it's also an exhibit to

9 your report, but let's just get that marked.

10 (Exhibit 8 is marked for identification.)

11 MS. JENKINS: So I'm going to add it to the

12 chat. Okay. Bear with me here. All right.

13 **Q. (MS. JENKINS) So I believe this will be Exhibit 8 to**

14 **your deposition, which is the asserted patent in this**

15 **case, U.S. Patent Number 8,901,516.**

16 Do you have that opened in front of you?

17 A. Yes.

18 MS. JENKINS: Okay.

19 MR. PERRY: And, Counsel, he also -- there's

20 a paper copy of the patent in a notebook here for him

21 as well.

22 THE WITNESS: Yes.

23 MS. JENKINS: Great. Okay. Thank you.

24 **Q. (MS. JENKINS) So if you take a look at the patent, do**

25 **you see Figure 12 shows the semicircular embodiment**

1 that we were discussing before the break, correct?

2 A. Yes.

3 Q. Okay. And I believe if you take a look back up in the

4 specification at column 12, around line 40, 41, that

5 you should see a description there of Figures 12 and

6 13. Do you see that?

7 A. Yes, I do.

8 Q. And beginning at line 41, it states, "Still other

9 variations are possible." Right?

10 A. Yes.

11 Q. And then it goes on to describe Figures 12 and 13. And

12 now with reference to Figures 12 and 13, take a look at

13 those. 13 is a cross section of Figure 12, right?

14 A. Yes.

15 Q. A housing in the shape of Figure 12, that would be

16 consistent with your construction that the housing

17 defines the central opening, as well as the plurality

18 of lamp receptacles surrounding the central opening,

19 right?

20 A. Well, the main body member with the holes, yes,

21 encircling it.

22 Q. So, in other words, your construction of this first

23 claim term -- strike that.

24 Under your construction of the first claim term,

25 Figure 12 would still fall within the scope of the

1 claim, correct?

2 A. Yes.

3 Q. So Figure 12 shows a main body member that defines a

4 central opening, as well as a plurality of holes

5 surrounding a -- or encircling, rather, a central

6 opening, under your definition?

7 A. Yes.

8 Q. Okay. We can move on now to term 2. Claim term number

9 2, that section of your report begins about halfway

10 down page 16. Do you see that?

11 A. Yes.

12 Q. Okay. And directly above that construction, you have

13 the two paragraphs discussing your construction of that

14 term, right?

15 A. Yes.

16 Q. And that claim term is a housing defining a central

17 opening therein and a plurality of lamp receptacles

18 therein surrounding the central opening. Right?

19 A. Yes.

20 Q. And this claim term appears in independent claim 25,

21 correct?

22 A. Yes.

23 Q. And this claim term also differs from the claim terms

24 we just looked at -- the claim term we just looked at

25 in claims 1 and 14, right?

1 A. Yes.

2 Q. And how does this claim term differ from that of claim

3 term 1 and claims 1 and 14?

4 A. Only in the word "therein," after lamp receptacles.

5 Q. Okay. And it's your opinion that this second claim

6 term should be construed exactly the same as the first

7 claim term, correct?

8 A. Yes.

9 Q. Are you familiar with the portion of the prosecution

10 history in which the applicant added claim 25?

11 A. I don't recall it off the top of my head.

12 Q. Okay.

13 A. But I could refer to it in my document, if you wish.

14 Q. Okay. Are you aware that the claim language in claims

15 1 and 14 already existed at the time that claim 25 was

16 proposed?

17 A. I would have to go back and look at the record to find

18 out exactly the timing of which claims were presented

19 when.

20 Q. You would agree with me that if the applicant had

21 wanted to use the same language in claim 25 that he

22 used in claims 1 and 14, he could have done so,

23 correct?

24 A. I would have to go back and look at the record of when

25 it was timing -- of when it was timed.

1 MR. PERRY: I'm going to object to that

2 question on the grounds of speculation as well.

3 Q. (MS. JENKINS) Dr. Talghader, are you familiar with the

4 principle of claim construction that generally requires

5 that different claim terms be given different meanings?

6 A. The general principle of patent claims is having

7 different meanings, yes.

8 Q. But you've determined that this claim term should be

9 construed in exactly the same manner as the differently

10 phrased claim term, correct?

11 A. Yeah, this phrase of the claim. Like, the claim is

12 much larger than just this phrase or whatever the

13 appropriate legal term is for it.

14 Q. And your construction basically reads out the word

15 "therein," that second "therein" surrounding the

16 central opening, correct?

17 A. Yes.

18 Q. And what's your basis for doing that?

19 A. Well, if the main body member or housing defines the

20 central opening and the lamp hole receptacles, then the

21 lamp holes or the holes in the receptacles are

22 automatically therein. You know, it's intrinsic. So

23 it's just redundant.

24 Q. So, in your view, that second therein in claim 25 is

25 superfluous?

1 A. Yes.

2 **Q. And what's your basis, again, for that understanding?**

3 A. Because if the holes in the main body member that

4 define where the lamps go in are already defined by the

5 main body member, then they're automatically therein.

6 **Q. So it's based on your reading of the claims themselves,**

7 **then, right?**

8 A. Yes. And the claim construction, yes.

9 **Q. So is it your opinion that the applicant just made a**

10 **mistake here in repeating that word again?**

11 A. The entire claim 25 does have differences from claims 1

12 and 14. I'd have to go back and find the exact

13 phrasings of that. But this word just wasn't necessary

14 and as -- I don't think there's a mistake there. It's

15 just not any -- you know, there's no -- sometimes words

16 are put in that, you know, don't change the meaning and

17 this is one of them. I mean, I think we all, in our

18 writing, have some words that don't change the meaning

19 but aren't absolutely necessary, and this is one

20 example of that.

21 **Q. Okay. Let's take a look at claim term 3. And your**

22 **analysis of claim term 3 begins in Section C of your**

23 **report, on page 17. Do you see that?**

24 A. Yes.

25 **Q. Claim term number 3 is "a light source positioned**

1 within each of the plurality of lamp receptacles,"

2 right?

3 A. Yes.

4 **Q. If you scroll down to page 21 of your report, you'll**

5 **see your conclusion there is that this term should be**

6 **construed as, "a non-surface-mounted light source in**

7 **each of the plurality of holes in the member," right?**

8 A. Yes.

9 **Q. All right. So in the first portion of your**

10 **construction here, you've taken the term, "a light**

11 **source" and, you've replaced that with "a**

12 **non-surface-mounted light source," correct?**

13 A. Yes.

14 **Q. And then in the next portion of your construction,**

15 **you've taken the claim phrase "positioned within each,"**

16 **and you've replaced that with "in each," correct?**

17 A. Yes.

18 **Q. Okay. Did you intend any difference in meaning or**

19 **claim scope by changing the language from "positioned**

20 **within" to "in each"?**

21 A. The -- it just read better. You know, if you're not

22 using the word lamp receptacles, lamp holes doesn't fit

23 well, and, so, you want to change the wording to

24 emphasize that it is indeed within these holes that the

25 lamp light source is being placed in the member.

1 **Q. I'm not sure I followed that.**

2 A. Okay. Well, so the --

3 **Q. Does the phrase -- just let me finish my question.**

4 A. Okay.

5 **Q. Does the phrase "positioned within each" mean something**

6 **different than "in each"?**

7 A. They have largely the same meaning. The lamp -- with

8 the lamp being within the hole of the member,

9 surrounding, you know, basically, you know -- by it.

10 **Q. Okay. So, again, why was this change made from the**

11 **language that was used in the claim to the language in**

12 **your construction?**

13 A. Well, as I've -- as we've talked about, sometimes when

14 you change, you know, one word from lamp receptacles,

15 lamp holes, as we've discussed before, doesn't really

16 work. So you just change the terminology.

17 Again, the phrase "in each of the plurality of

18 holes of the member" means that this member has holes

19 in it that define where the lamps are going to go, the

20 light sources are going to go. And they are placed in

21 it, within it.

22 **Q. Okay. And that second half or final portion of the**

23 **construction of the plurality of lamp receptacles, is**

24 **construed as the plurality of holes in the member,**

25 **right?**

1 A. So, yes. So plurality of lamp receptacles becomes the

2 plurality of holes in the member.

3 **Q. And that's essentially the same construction that we**

4 **discussed earlier with respect to claim 1?**

5 A. Yes.

6 **Q. Claim term 1, right?**

7 A. Yes.

8 **Q. Okay. So really the additional construction here has**

9 **to do with non-surface-mounted light source, correct?**

10 A. Yes.

11 **Q. So let's go back up to the beginning of this section,**

12 **page 17. Your support for the conclusion that a light**

13 **source should be defined as a surface-mounted light**

14 **source comes from the prosecution history of the '516**

15 **patent, right?**

16 A. Yes.

17 **Q. And it's based on your opinion that the applicant**

18 **disavowed claim scope during prosecution with respect**

19 **to that term, right?**

20 A. At least partially, yes.

21 **Q. What is your understanding of the definition of a**

22 **surface-mounted device?**

23 A. Well, I can refer to the IEEE definition --

24 **Q. Okay.**

25 A. -- which I believe is -- I'm trying to remember exactly

1 where it is in here.

2 **Q. Sure. Are you looking now to one of the exhibits to**

3 **your report?**

4 A. Yeah. I'm trying to find the IEEE definition of

5 surface mount that I've used as the definition for this

6 report. I'm blanking on where it is.

7 **Q. If it helps, I believe you also quoted the definition**

8 **in paragraph 58 of your report.**

9 A. Okay. Thank you. Thank you very much.

10 Okay. So the IEEE definition of surface-mounted

11 device -- IEEE being the standard definition of the

12 standards organization for electrical engineering.

13 A device in which the entire body of which projects

14 in front of the mounting surface --

15 THE REPORTER: I'm sorry. Can you just

16 start again?

17 THE WITNESS: Oh, I'm sorry.

18 THE REPORTER: A device for which the what?

19 A. A device in which the entire body of which projects in

20 front of the mounting surface, with no portion

21 penetrating the mounting surface.

22 **Q. (MS. JENKINS) Okay. And that IEEE definition is your**

23 **understanding of the plain and ordinary meaning of**

24 **surface-mounted device, right?**

25 A. Yes. Within the general context, yes.

1 **Q. Okay. What is your understanding of the plain and**

2 **ordinary meaning of the term "light source"?**

3 A. Oh, boy. That's extremely broad. I mean, that

4 encompasses all photon emitting structures, if you're

5 going to be most general, everything from radio waves

6 to X-rays. In the optical domain, you're talking

7 incandescent bulbs, fluorescents, LEDs, lasers, you

8 know, chemiluminescence, I mean, all sorts. There are

9 many, many examples.

10 **Q. And in this technical -- you would agree that this**

11 **surface-mounted device is a technical term of art,**

12 **right?**

13 A. Yes.

14 **Q. In the field of electrical engineering, correct?**

15 A. Yes.

16 **Q. What's your understanding of what surface is being**

17 **referenced in this technical term, surface-mounted**

18 **device?**

19 A. All surfaces that are either the member or connected to

20 the member.

21 **Q. What do you mean by member?**

22 A. The main body member. The housing of the -- 14.

23 **Q. Okay. I'm sorry. So outside the '516 patent, just**

24 **stepping away from the '516 patent for a moment.**

25 A. Oh, I'm sorry. I'm sorry.

1 **Q. Just talking about the plain and ordinary meaning of**

2 **surface-mounted device. What is referenced by the term**

3 **surface?**

4 A. The -- well, surface, the flat -- or it doesn't even

5 have to be flat. It can be a curved area. That a

6 particular structure is mounted on. You essentially

7 have something, and you put it on top of the other.

8 And, you know, there are more specific meanings for

9 circuit boards. But, you know, just in general, it's

10 placing something on top of something else, and there

11 may be, you know, wires or connections underneath of it

12 that, you know, connect to it.

13 **Q. So a surface can be a circuit board, correct?**

14 A. Yes, it can.

15 **Q. So a surface-mounted device can be a light source like**

16 **an LED mounted on a circuit board, correct?**

17 A. Yes.

18 **Q. Okay. And surface-mounted device, according to this**

19 **definition -- I'm going to paraphrase. You tell me if**

20 **I'm incorrect.**

21 A. Okay.

22 **Q. Essentially the -- the device or the light source is**

23 **not breaking the plane of that surface on which it is**

24 **mounted?**

25 A. More or less, yeah.

1 **Q. Okay.**

2 A. I mean, on circuit boards there's a more specific

3 meaning where you generally don't have the device

4 penetrating through to the bottom side where it's

5 soldered.

6 **Q. Okay. How is a surface-mounted device generally**

7 **mounted to a circuit board?**

8 A. Well, the way that works is usually -- so you've got a

9 circuit board and you have some electrical contacts

10 that are essentially alloys of indium or an indium tin

11 alloy. And there's a pick-in-place robot that grabs a

12 device, usually by a vacuum suction, and places it on

13 that. And essentially there's a device that heats up

14 the bond to alloy it. And then essentially it's now

15 electrically connected. And this actually happens very

16 quickly. You know, these robots are very fast.

17 **Q. Is it your opinion that a surface-mounted device must**

18 **be basically free standing and can never be contained**

19 **within a housing or other structure?**

20 A. A surface-mounted device certainly could be. It's not

21 the preferred thing to do, because, remember, that when

22 you're doing this robotic pick-and-place, you generally

23 want short, flat components because the vacuum pickup

24 of the robot that, you know, basically has a little

25 robotic arm, prefers that rather than tall, skinny

1 things. But, in principle, if we're going to split
2 hairs and go, yeah, you could, you know, stick a very,
3 very shallow surface-mounted device in an enclosure,
4 but it's -- you know, you would have to have a reason
5 to want to do it.

6 **Q. What about a cover? Can a surface-mounted device be**
7 **covered with another structure?**

8 A. We're talking about -- well, in integrated circuit
9 packages, you mostly -- I mean, you essentially have to
10 have the top of the integrated circuit on top. And so
11 you do have to -- so, in integrated circuits, you would
12 generally have a top. For example, in a DIP package,
13 that dual in-plane package, you would have a plastic
14 thing that's placed over the surface mount here.

15 And it would not -- you would not generally do that
16 if your light-emitting diode is supposed to emit out.
17 You might put a window over it, but not a plastic part.

18 **Q. Okay. Let's go back to the land of the '516 patent.**

19 A. Okay.

20 **Q. And take a look back at your report.**

21 A. Mm-hmm.

22 **Q. You have a discussion here of the Pohlert reference --**

23 A. Yes.

24 **Q. -- that was cited during prosecution, right?**

25 A. Yes. Mm-hmm.

1 A. Mm-hmm.

2 **Q. And that's from Pohlert.**

3 A. Yes.

4 **Q. On page 19 of your report, do you see Figures 11 and 12**
5 **from Pohlert?**

6 A. Yes.

7 **Q. And Figure 11, I believe, shows the -- the structure or**
8 **the cover that could be placed around the**
9 **surface-mounted devices of Pohlert, right?**

10 A. So you're talking about 1205, 1215 and 1218?

11 **Q. Yes.**

12 A. Okay. And, okay. So, yes, all of these are placed
13 over the -- the 1101 frame.

14 **Q. Okay. And the examiner analogized that to the housing**
15 **of the '516 patent invention, right?**

16 A. Yes. This was referred to in that, yeah, in the office
17 action.

18 **Q. Okay. So my question is, is it your understanding that**
19 **the light sources or the lamps disclosed in Pohlert**
20 **would protrude above that housing shown in Figure 11?**

21 A. You're referring to 1218, the actual cover that's put
22 on it, or you're talking about the actual frame itself?

23 **Q. The frame itself.**

24 A. Okay.

25 **Q. 1101.**

1 **Q. Okay. Now the Pohlert reference, you explain,**
2 **discloses surface-mounted devices, right?**

3 A. Yes, it does.

4 **Q. And in paragraph 57 of your report, still discussing**
5 **Pohlert, you explain that those surface-mounted**
6 **devices, light sources, can be covered with other**
7 **structures, such as a diffusion filter, color filter**
8 **and a cover. Do you see that?**

9 A. Yes. This is on paragraph 57, at the end?

10 **Q. Correct.**

11 A. Mm-hmm.

12 **Q. So the Pohlert reference contemplates that**
13 **surface-mounted devices may be covered with other**
14 **structures, right?**

15 A. Yes. In Pohlert, yes.

16 **Q. Do you have an understanding of whether or not the**
17 **Pohlert reference discloses light sources or plurality**
18 **of lamps that protrude above the cover?**

19 A. Okay. What are we calling the cover here? Which --
20 which item? So I'm going to refer to --

21 **Q. Yeah. Let me be more specific. I'm sorry. Let me ask**
22 **a better question.**

23 So on page 18 of your report --

24 A. Mm-hmm.

25 **Q. -- you see Figure 4?**

1 A. Okay. All right. Yes. All of the light sources in
2 Pohlert are placed on top of their frame there.

3 **Q. Okay. Do you see the thin rectangles surrounding this**
4 **-- in this circle shown in Figure 4?**

5 A. A circle shown in Figure 4. The 306, you're referring
6 to?

7 **Q. Yes.**

8 A. Okay. Let me find that in the -- referred to in the
9 patent. Lamp segments. Yes. Thank you.

10 **Q. Are you just referring to the Pohlert reference?**

11 A. Yes. I'm looking at the Pohlert patent right now.

12 **Q. Okay.**

13 A. This is page 6 of the Pohlert patent. I'm in my
14 exhibit book here.

15 **Q. Okay. And what's your understanding of what those**
16 **rectangles in Figure 4 represent, 306?**

17 A. These are lamp segments. Essentially, these are --
18 would be small, I guess, columns you'd call it, from
19 this, you know, angle that contain LEDs or another
20 light source, and, you know, they're placed on top of
21 the frame.

22 **Q. I guess what I'm trying to understand is, are these --**
23 **are these rectangles here, are they boxes, or are they**
24 **slits?**

25 A. Oh. They're on -- they would be placed on top of the

1 frames. So, for example, if you had a -- so let me --
2 you know, I'm going to -- for the camera here, so let's
3 just say I've got a little rectangle with five LEDs on
4 it. Then, if this -- my apologies. I just don't have
5 a table I can point it.

6 If you would place this on the surface of the
7 table, that's the frame. Okay. You're placing these
8 on the frame.

9 Q. I see. Okay. That's helpful. Thank you.

10 And so we previously discussed, in the context of
11 the '516 patent, that in your opinion the term lamp
12 receptacles should be construed as holes, correct?

13 A. Yes.

14 Q. So according to go your construction, a circuit board
15 with surface-mounted LEDs ceases to be surface-mounted
16 once something is placed over that circuit board that
17 walls off the LEDs, right?

18 A. Could you repeat that again? Sorry.

19 Q. Mm-hmm. According to your construction of the lamp
20 receptacle as a whole, is it correct that
21 surface-mounted LEDs could not be -- could not have
22 something placed over them that would wall them off?

23 A. So --

24 MR. PERRY: I'm going to object to the form
25 of the question. If you understand it, you can answer

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1 it.
2 A. I'm not sure I fully understand it.
3 Certainly, a surface-mounted LED, just -- and just
4 talking in generality, you can, of course, put anything
5 you want over it. I mean, you know, that's -- I'm not
6 sure I understand it in the context of what we're
7 talking about though.

8 Q. (MS. JENKINS) Okay. Well, let's go back to term 3 as
9 discussed in your report, which is a light source
10 positioned within each of the plurality of lamp
11 receptacles.

12 A. Mm-hmm.

13 Q. So is the purpose of your construction here to -- to
14 state that the light sources of the '516 patent have to
15 be located within --

16 A. Yes.

17 Q. -- these holes or receptacles?

18 A. Yes. And I apologize for starting to answer before you
19 finished.

20 Yes. They're supposed to be within the holes.

21 Q. What's the difference, in your opinion, between a
22 surface-mounted device and a recessed device?

23 A. Well, we've just kind of gone over that. A
24 surface-mounted device is placed on the surface of
25 something, over -- you know, over it, primarily over

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1 it. And a recessed device is essentially something
2 that is, if there is a pit or a hole or whatever
3 designed for something and it fits, you know, in that
4 recess or hole, depending on what the, you know,
5 particular application is, you go there. You can put
6 it in there.

7 Q. Okay. So a surface-mounted device would not include an
8 LED that's affixed to a circuit board that projects
9 beyond a hole in the housing?

10 A. Okay. So --

11 MR. PERRY: I'm going to object to the form.
12 You can go ahead and answer, if you can.

13 A. Okay. Can I repeat the question and see if that is
14 what you were asking for?

15 Q. (MS. JENKINS) Sure.

16 A. Okay.

17 Q. A surface-mounted device would not include an LED
18 that's affixed to a circuit board that projects beyond
19 a hole in the housing?

20 MR. PERRY: I'm going to object again to the
21 form. You can go ahead and answer.

22 A. Okay. So, no. I would say that it is included, and --
23 and its, you know, insertion into the hole would be
24 allowed if the applicant had not specifically disavowed
25 it in regard to the Pohlert patent, which includes the

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1 circuit board as part of the lighting frame.

2 Q. (MS. JENKINS) We talked a little bit earlier about
3 your understanding of the plain and ordinary meaning of
4 the term receptacle or lamp receptacle, right?

5 A. Mm-hmm.

6 Q. Is it your opinion that the plain and ordinary meaning
7 of receptacle would exclude all surface-mounted
8 devices?

9 A. Receptacle doesn't impinge on the definition of circuit
10 -- surface mount. They're two separate definitions.

11 Q. Okay. So, in other words, you could have a
12 surface-mounted device and also a lamp receptacle,
13 right?

14 A. Within the general context. Again, the '516 patent
15 specifically disavows the use, even on a circuit board,
16 but -- but in general, you could, of course.

17 Q. Okay. And again, your basis for that opinion is the
18 prosecution history, correct?

19 A. Yes.

20 Q. Okay. And this section of your report, beginning at
21 paragraph 53 and continuing through paragraph 57,
22 discusses the prosecution history, right?

23 A. Yes.

24 Q. This doesn't discuss any other -- any other sources,
25 correct?

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1 A. I'm going to have to take a minute to look at it. Is
2 that okay?

3 Q. Yeah. Sure. Mm-hmm.

4 To be more precise, it discusses the prosecution
5 history, and the references within that prosecution
6 history, that office action; is that correct?

7 A. I'm looking, right -- reading through right now.

8 Yes. This just -- the prosecution history, the
9 office actions, along with Pohlert and Kelly and Nomura
10 are referred to in this section.

11 Q. You don't cite any other sources in this section,
12 right?

13 A. Between 53 and 57? No, I do not.

14 Q. In 58, you discussed the IEEE definition, as well as
15 Pohlert, correct?

16 A. Yes. That is correct.

17 Q. Okay. And then continuing in paragraph 59 through
18 paragraph 62, you're again discussing the prosecution
19 history and the references discussed within that office
20 action, right?

21 A. Yes. At some point, one of the other -- okay. Yeah.
22 That's paragraph 62, though. So, yes, as I'm looking
23 through this, I think it's only Pohlert, Kelly, Nomura,
24 and the patent history up to paragraph 61.

25 Q. Okay. So, at least here in your report, you haven't

1 pointed to anything in the claims or the specification
2 that supports your construction, right?

3 A. No. I -- I'm relying on the -- the applicant's own
4 disavowal.

5 Q. Okay. Let's take a look at claim term number 4. The
6 beginning of that discussion is on page 22 of your
7 report. Do you see that?

8 A. Yes, I see it.

9 Q. And this claim term number 4 is "a narrow-band light
10 source positioned within at least one of the plurality
11 of lamp receptacles," right?

12 A. Yes.

13 Q. Okay. And your proposed construction is a
14 non-surface-mounted narrow-band light source in at
15 least one of the plurality of holes in the member,
16 right?

17 A. Yes.

18 Q. Okay. So the primary difference between claim term
19 number 4 and claim term number 3, is that claim term
20 number 4 is referring to a narrow-band light source
21 instead of just a light source?

22 A. Yes, that is true.

23 Q. Okay. And as with claim term number 3, you have
24 inserted the phrase, "Non-surface-mounted narrow-band
25 light source" in place of "narrow-band light source."

1 A. Yes.

2 Q. Right?

3 A. Yes.

4 Q. And the remainder of that definition or that
5 construction, "at least one of the plurality of holes
6 in the member," we've already discussed, correct?

7 A. Yes, that's correct.

8 Q. Is the term, "narrow-band light source" a technical
9 term of art?

10 A. It's a relative term.

11 Q. Okay.

12 A. Narrow-band, you know, there's so many different
13 regimes. So, for example, a laser, every -- you could
14 use the word broadband and refer to a laser. That
15 would be much narrower than anything used in this
16 patent. On the other hand, you could use, you know,
17 narrow-band. But in this patent -- and you can go the
18 other way too. But in this patent, it's very clear
19 that a high purity Spectral line laser is not
20 appropriate for the application. And so that
21 definition is not even relevant. It's not even a
22 definition. It's a relative term.

23 Q. I see. I'm not quite sure I've followed that response.
24 So let me ask a different question.

25 A. Mm-hmm.

1 Q. Are you offering an opinion in this case about the
2 meaning of the term, "narrow-band light source" in the
3 context of the '516 patent?

4 A. No, definitely not. You asked me a general question
5 about what narrow-band means, and I was, you know,
6 within the realm of science. Narrow-band and broad
7 band, that can mean frequency ranges, that are just
8 wildly disparate depending on the application.

9 Q. Okay. Let me ask you a better question.

10 What is your understanding of the plain and
11 ordinary meaning of the term, narrow-band light source
12 in the context of fluorescent imaging?

13 A. Okay. So narrow-band light source in this case, is
14 you're talking about a light source that probably has a
15 spectral bandwidth on the order of a few tens of
16 nanometers.

17 THE REPORTER: A few what?

18 THE WITNESS: Tens of nanometers.

19 Q. (MS. JENKINS) The patent, the '516 patent also uses
20 the term broadband light source, correct?

21 A. Yes.

22 Q. Do you have an understanding of the plain and ordinary
23 meaning of broadband light source in the context of
24 fluorescent imaging?

25 A. It would mean a light source that is much, much wider

1 than narrow-band. Again, so these are relative firms.

2 Q. Got it.

3 A. So, if I were given an order of magnitude for these

4 definitions, just, you know, I would say tens of

5 nanometers narrow-band; hundreds of nanometers

6 broadband.

7 Q. Your analysis on claim term number 4 is comprised in

8 paragraph 66, right?

9 A. Sorry. Could you repeat that again?

10 Q. I'm sorry. Paragraph 64 through 66.

11 A. Okay. Yes. Yes. That's correct.

12 Q. Is it true that your analysis for claim term number 3's

13 construction is the same as your analysis for claim

14 term number 4?

15 A. For the surface-mount, you're referring to? Yes.

16 Q. Yes.

17 A. That's the same analysis, yes.

18 Q. In other words, the same analysis supports your

19 constructions of both claim term number 3 and claim

20 term number 4, right?

21 A. Yes.

22 Q. Okay. All right. Let's discuss your opinions on claim

23 term number 5.

24 If you turn to page 22 of your report.

25 A. Mm-hmm. Yes.

1 Q. Do you see that?

2 A. Yes, I do. Thank you.

3 Q. Okay. And claim term number 5 is diffuser, right?

4 A. Yes.

5 Q. Does the term "diffuser" have a plain and ordinary

6 meaning in the art of fluorescent imaging?

7 A. I tried to find a standard definition, as I mentioned

8 earlier going through the Optical Society of America,

9 or now it's called Optica, and I did not find a

10 standard definition. I think among people skilled in

11 the art, there's a general feeling, for, you know, what

12 it is, and it's, you know -- but I did not find a

13 specific def- -- example that I could pull out right

14 here.

15 Q. Okay. And with respect to the '516 patent, you

16 testified earlier that the applicants actually defined

17 diffuser, right?

18 A. Yeah. Some -- okay. I should probably go find the

19 exact wording that they say. But the applicants refer

20 to both spreading and diffusing with respect to

21 diffuser. And it's in regard to their use of word

22 spreading that I felt the need to define more precisely

23 what a diffuser does.

24 Q. Okay. So you believe that the applicant defined

25 diffuser incompletely or imprecisely, right?

1 A. Incompletely. Incompletely, yeah.

2 Q. And that was the basis for your addition of the words

3 to the construction of diffuser, right?

4 A. Yes.

5 Q. Okay. Let's take a look at your construction of the

6 term diffuser in paragraph 70 of your report.

7 A. Mm-hmm.

8 Q. You state that diffuser should be construed as "an

9 optical component that spreads and randomizes rays of

10 light passing through it to provide more even

11 illumination than would be without the optical

12 component."

13 A. Yes.

14 Q. So I'm just pounding this up. It looks like we've gone

15 from one word to about 25 words, right?

16 A. Yeah. From one point of view, it's just defining more

17 completely the word diffuser. So...

18 Q. So you testified earlier that you couldn't find a

19 standard definition in the field of fluorescent imaging

20 for the term diffuser; is that right?

21 A. Yes.

22 Q. Does that mean that you do not believe that that term

23 has a plain and ordinary meaning to a person skilled in

24 the art?

25 A. There are commonalities that someone skilled in the art

1 would know. But if you were to ask a general engineer

2 that would be working on a fluorescence imaging system,

3 I believe that many of them would miss a couple of

4 subtle points about diffusers, that they are probably

5 using diffusers in their systems all the time, but

6 aren't fully aware of what is going on in the nuts and

7 bolts of the device.

8 Q. Okay. What are the commonalities that someone skilled

9 in the art would know with respect to a diffuser in the

10 fluorescent imaging field?

11 A. Well, the diffuser will, in general, do two things. It

12 will change the direction of the rays that are

13 essentially emitted from a light source, but it also

14 generally has multiple scattering events so that it's

15 also hiding the position of where they come from. So

16 the best diffusers, if you were to look at the diffuser

17 with the light sources behind it, you would not be able

18 to see where the light sources were.

19 Q. So you said a few things. You said commonalities would

20 include changing the direction of the rays that are

21 emitted from a light source?

22 A. Mm-hmm.

23 Q. Right?

24 A. Right.

25 Q. And scattering the light so that it's hiding the

1 position of where the light is coming from?

2 A. Yeah. So obscuring the position, and that's done

3 through --

4 Q. Okay.

5 A. -- multiple scattering events.

6 Q. Okay.

7 A. I mean, no --

8 Q. I'm sorry. Go ahead. Finish your answer.

9 A. No diffuser is perfect, but that's -- the good ones

10 will have those properties.

11 Q. Sure. Okay. Is changing the direction of the rays of

12 light the same thing as spreading the light?

13 A. So that was one of the ambiguities of why I put the

14 more words there is that a lens will spread light, a

15 prism array will spread light, you know, can be used to

16 spread those, but those are not diffusers.

17 Q. Mm-hmm. So I'm not sure I got an answer to my

18 question.

19 With respect to diffusers, is changing the

20 direction of the rays of light the same thing as

21 spreading the light?

22 A. Not precisely. Spreading the light, you are generally

23 assigning a particular directional change to all of the

24 rays, where if you're just random -- or what was the

25 changing direction? What was the exact term you used?

1 Q. Yeah, these are your words.

2 A. Okay.

3 Q. Changing the direction.

4 A. That -- that randomization does not have to have a

5 specific bias to it. In other words, if you're

6 spreading rays, you're saying, they're all going out

7 this way. But if you're randomizing, some could be

8 going this way, some could be going this way. So you

9 see that there is no preferred bias to the -- to any

10 particular one ray.

11 So a lens will spread or focus, you know, depending

12 on how the lens is doing. But a diffuser will always

13 randomize, you know.

14 Q. Okay. In the context of diffusers, is randomizing the

15 same thing as scattering light?

16 A. Okay. Sorry. Just walked you down a rabbit hole here

17 in scientific terminology.

18 Light scattering has a very specific scientific

19 meaning.

20 Q. Okay.

21 A. Where -- and so, in that case, randomization and

22 scattering would not be exactly the same thing.

23 Q. Not exactly the same thing.

24 A. Yeah.

25 Q. Okay. Well, let me cut to the chase here and tell you

1 what I'm trying to understand. Maybe you can help me

2 out.

3 What I'm trying to understand is, how does your

4 proposed construction of the term diffuser differ from

5 what you've just explained to me is the general

6 understanding of the commonalities of a diffuser in

7 this field of fluorescent imaging?

8 A. I think this is -- you know, randomizing the rays of

9 light such that, you know, you're, you know, obscuring

10 not only the -- you're randomizing the rays, but you're

11 also changing, you know, randomized position, I think

12 that is what they -- someone who understands diffusers

13 would be.

14 And again, the only reason I felt compelled to

15 introduce this is because sometimes the words

16 "spreading rays" was used in the context of diffusion,

17 which isn't quite right. You know, it's incomplete.

18 And again, I didn't get the impression that patentees

19 were mistaken per se, just incomplete in their

20 definition.

21 Q. Okay. I see. So, in your opinion, a diffuser, that's

22 understood by one of ordinary skill in the art, would

23 both spread and randomize rays of light?

24 A. Yes. Well, randomization, spreading is one aspect of

25 randomization. It's a subset of randomization.

1 Q. I see. So your proposed construction is basically the

2 plain and ordinary meaning of a diffuser in the

3 fluorescent imaging space?

4 A. Yes.

5 Q. Let's talk about your use of the word "optical

6 component" in this construction. You stated earlier, I

7 think, in the deposition when we talked about this,

8 that it was necessary to use the word optical because

9 mechanical or electronic component wouldn't have made

10 sense in context, right?

11 A. Mm-hmm. Yes.

12 Q. Okay. So, if it wouldn't have made sense, why is it

13 necessary to clarify that? Wouldn't an ordinary person

14 -- a person of ordinary skill in the art would have

15 known that it would have to be an optical component?

16 A. It just seemed to be more precise and better definition

17 than just saying component.

18 Q. All right. Let's look at paragraph 69 of your report.

19 You're discussing a portion of the '516 patent

20 specification, column 9, lines 22 to 25, right?

21 A. Yes.

22 Q. And that portion of the specification states that a

23 "diffuser 26 diffuses or spreads light produced by the

24 light source 20, thereby generally providing for more

25 even illumination than would be provided by light

1 source 22 alone," right?

2 A. Yes.

3 Q. Okay. And you say, [as read], "While I agree generally

4 with this characterization, in my opinion a person of

5 ordinary skill in the art would understand that a

6 diffuser diffuses or spreads light by randomizing rays

7 of light passing through it to make the light passing

8 through it more even."

9 A. Yes. And this just goes back to the fact that

10 spreading is a subset of a larger idea of randomizing.

11 So spreading, you know -- so you've got other things

12 going on when you randomize.

13 Q. Okay. So, when you say you only generally agree with

14 this statement, it's because the statement doesn't

15 reference randomizing?

16 A. Yeah. It uses the word spreading. And spreading,

17 again, is not quite what a diffuser does. I mean, it's

18 one -- it can be one aspect if you look at it from the

19 light emission, but it's not just the rays going out in

20 a biased way. You know, in other words, you've got

21 rays this way, this way, this way. And if you

22 integrate mathematically over it, there is a spread.

23 But spreading would not obscure where the light source

24 is originated from. And a good diffuser will do that.

25 You know, basically, there's multiple scattering

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1 events, where that you can't tell, oh, this photon came

2 from this light source because it got emitted over

3 here. And so that's where spreading falls in the

4 definition.

5 Q. Mm-hmm. Are there -- are there, what I'll call bad

6 diffusers, that would only spread light and not scatter

7 or randomize the light?

8 A. Not ones that you would want to use in a fluorescence

9 imaging system.

10 Q. Okay. And you agree that optical diffusers are well

11 known in the art, correct?

12 A. Yes.

13 Q. And the '516 patent states this as well, correct?

14 A. Yes.

15 Q. If you look at the patent, which is, I believe,

16 Exhibit 8, column 9, lines 29 to 30.

17 A. Oh. Oh, sorry. This is probably -- when you refer to

18 Exhibit 8, you're referring to something that you have

19 up on the thing, this?

20 Q. I'm referring to the '516 patent. So if you have that

21 in front of you.

22 A. Okay.

23 Q. I'm looking at the '516 patent, column 9, line 29.

24 A. Column 9, line 29?

25 Q. Mm-hmm.

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1 A. Yes, I see this.

2 Q. Okay. Actually, let's back up a little bit more.

3 Let's go up. Let's go up to line 26.

4 A. Okay.

5 Q. It states "The diffuser 26."

6 A. Mm-hmm.

7 Q. This portion of the specification states that the

8 diffuser 26 may comprise any of a wide range of optical

9 diffusers that are now known in the art or that may be

10 developed in the future or that would be suitable for

11 the particular application."

12 A. Yes.

13 Q. "However, because optical diffusers are well known in

14 the art and could be readily provided by persons having

15 ordinary skill in the art after having become familiar

16 with the teachings provided herein, the particular

17 diffusers that may be used in one embodiment of the

18 invention will not be described in further detail

19 herein." Do you see that?

20 A. Yes.

21 Q. Okay. And do you agree with those statements that

22 there are a wide range of optical diffusers known in

23 the art?

24 A. Yes.

25 Q. And do you also agree that a person of ordinary skill

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1 in the art could readily identify the particular

2 diffusers that might be used to implement the '516

3 patent invention?

4 A. Yes.

5 Q. Okay. Let's move on to claim term number 6. So now,

6 Dr. Talghader, I'm looking at your report at page 25.

7 A. Okay.

8 Q. Do you have that in front of you?

9 A. Yes.

10 Q. Okay. Claim term number 6 is "a diffuser positioned

11 within at least some of the plurality of lamp

12 receptacles," right?

13 A. Yes.

14 Q. And your construction of that term is "a diffuser

15 positioned within at least some of the holes of the

16 member that contain narrow-band light sources."

17 Do you see that?

18 A. Yes.

19 Q. Okay. So we've already discussed your construction of

20 lamp receptacles as holes, correct?

21 A. Yes.

22 Q. And we've discussed your construction of diffuser. So

23 essentially, what you've done with this construction is

24 you've added -- you've taken the claim language, and

25 then you've added the phrase "that contain narrow-band

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1 light sources" to the end, correct?

2 A. Yes.

3 Q. And what's your basis for adding that limitation into

4 this claim term?

5 A. The absence on words. They specifically say so in the

6 patent.

7 THE REPORTER: I'm sorry. Did you say the

8 absence?

9 Q. (MS. JENKINS) So it's your opinion that the absence --

10 A. Oh, I'm sorry. The court reporter --

11 MR. PERRY: Wait a second.

12 Q. (MS. JENKINS) I'm sorry?

13 A. The court reporter said --

14 THE REPORTER: I just didn't hear you. Did

15 you say the absence of words? I didn't hear you.

16 THE WITNESS: Oh, gosh. Now I'm trying to

17 remember what I --

18 THE REPORTER: The absence of words, they

19 specifically say so in the patent? What was the word?

20 THE WITNESS: Oh. So I said something along

21 the lines of the patent applicant specifically said so

22 in the patent.

23 THE REPORTER: Oh, okay. Applicant. It's

24 applicant. Thank you.

25 MS. JENKINS: Okay. Let's clean that up.

1 I'll just reask the question.

2 Q. (MS. JENKINS) What is your basis for adding the

3 limitation that contained narrow-band light sources to

4 the end of the construction for claim term number 6?

5 MR. PERRY: I'm going to object to the form.

6 You can go ahead and answer.

7 A. That would be that the applicants stated that in the

8 patent specification. They stated specifically that.

9 Q. (MS. JENKINS) Okay. And so it's your opinion that the

10 applicant is acting as his own lexicographer here with

11 respect to this claim term?

12 A. I think it might be closer to -- I mean, again, I'm not

13 a legal expert, but if I were just looking at this,

14 it's more along the lines of there's a little bit of

15 disavowal in there, too. So there could be aspects of

16 both. But I'd have to think about it to make any kind

17 of judgment. That's a little bit outside my expertise.

18 Q. Okay. Well, let's look at what you actually -- what

19 you actually cited in your report here. And your

20 analysis begins on page 23, I believe, the claim term

21 number 6.

22 MR. PERRY: Counsel, can I interrupt for a

23 minute? Can we do a short restroom break here?

24 MS. JENKINS: Oh. Yes. Can I finish my

25 line of questioning here? I'm getting pretty close.

1 MR. PERRY: Yeah. If you're almost done,

2 that's okay. Or done with a line, you mean?

3 MS. JENKINS: Yeah. I'm almost done with

4 this line, I think.

5 MR. PERRY: Okay. That's fine. Just

6 relatively soon would be appreciated for me.

7 MS. JENKINS: All right. Same here.

8 Q. (MS. JENKINS) Okay. We were looking at page 23 of

9 your report. This is your analysis of claim term

10 number 6, right?

11 A. Yes.

12 Q. Okay. And you refer to column 3, lines 40 through 51,

13 of the '516 patent, right?

14 A. Yes.

15 Q. And this citation from the patent states that, "In a

16 typical application, those lamp receptacles 18 that are

17 provided with narrow-band light sources 22 may also be

18 provided with diffusers 36 and filters 28, whereas,

19 those receptacles 18 that are provided with broadband

20 light sources 24 will not be provided with diffusers 26

21 and filters 28. Alternatively, other arrangements are

22 possible, as will be described herein."

23 Do you see that?

24 A. Yes. Can I make one correction?

25 Q. Yes.

1 A. Just remember the diffusers 36 should actually be

2 diffuser 26 in that.

3 Q. Correct. Yes. I recall that now. Thank you.

4 So you would agree that this portion of this

5 specification is discussing a particular embodiment of

6 the invention, right?

7 A. No. Not -- no, I would not agree with -- with that.

8 The last sentence, "Alternatively, other arrangements

9 are possible, as will be described herein." So it

10 opens it up for all of them in the patent. So

11 everything, all the other arrangements in the possible

12 -- sorry -- all the other possible arrangements -- or,

13 sorry.

14 Other arrangements are possible and they're going

15 to describe it elsewhere in the patent, the other

16 possible arrangements.

17 Q. Right. Okay. Let me clarify my question.

18 So that last sentence mentions that there are other

19 arrangements possible and are described elsewhere in

20 the patent, right?

21 A. Yes.

22 Q. But above that, the patent is describing a typical

23 application, which is an embodiment?

24 A. That's right. Yes.

25 Q. Right?

1 A. That's right.

2 Q. Okay. And it's referring to a particular figure or

3 figures, I imagine, right?

4 A. Yes.

5 Q. Okay. And then you go on to discuss other portions of

6 the specification of the '516 patent and its use of

7 diffusers. And you state that "In Figures 5 and 6, the

8 diffusers 26 are positioned within receptacles only

9 with narrow-band light sources 22, --

10 A. Yes.

11 Q. -- consistent with the '516 patent's limitation of

12 diffusers adjacent narrow-band light sources only"; is

13 that right?

14 A. Yes.

15 Q. But you would agree with me that that limitation

16 doesn't appear in claim term number 6 itself, right?

17 A. Not in claim term number 6 itself, no. And the

18 claim -- sorry. The claim term --

19 Q. So you've taken out the limitation --

20 A. The claim term that you're referring to --

21 Q. I'm sorry. Finish your answer.

22 A. Sorry. The claim term you're referring to, we haven't

23 gone over yet. But should I read it out for the

24 record, or...

25 Q. Yes. It's the same one we've been discussing, claim

1 term number 6.

2 A. Oh. Oh, sorry. I thought you were taking about claims

3 in the patent. Okay. Sorry.

4 Q. No, no. Well, we are.

5 A. Okay.

6 Q. We're taking about a diffuser positioned within at

7 least some of the plurality of lamp receptacles, claim

8 term number 6.

9 A. Okay.

10 Q. And this claim term appears in independent claims 1 and

11 14, right?

12 A. And so then -- sorry. Can you repeat the question.

13 Q. Yes.

14 A. I was thinking of claim 6 in the patent, and I

15 apologize.

16 Q. Sorry. It can be confusing.

17 All right. So I'm looking at paragraph 74 of your

18 report.

19 A. Mm-hmm.

20 Q. And we're talking about your construction of a diffuser

21 positioned within at least some of the plurality of

22 lamp receptacles, as that term appears in independent

23 claims 1 and 14.

24 A. Yes.

25 Q. Okay. You would agree with me that the phrase

1 "narrow-band light source" does not appear in that

2 claim term?

3 A. Yes, I agree with that.

4 Q. You took that limitation from the specification and

5 added it to that claim, correct?

6 A. Yes. The patent -- the applicants's own words were

7 used in specifying the narrow-band light sources.

8 Q. Well, the applicant's words in the claims don't use

9 narrow-band light source, correct?

10 A. Right. But every embodiment discussed, and,

11 specifically the patent specification states they're

12 going to discuss everything that's possible here. They

13 -- they are disavowing the -- anything outside of

14 narrow-band light sources.

15 Q. You would agree with me that the applicant could have

16 included those words, "narrow-bands light source" in

17 the claim term if they wanted to, right?

18 A. In general, yes.

19 Q. But the applicant didn't do that here, right?

20 A. There was a great deal of file history that went into

21 the changes of these claims and to remember the exact

22 sequence of events where the applicant was changing

23 things in order to get around previous prior art, but

24 very clearly the -- in the patent specification, the

25 applicant says that diffusers are only going to be next

1 to narrow-band light sources.

2 Q. Okay. But with respect to this claim term, it's clear

3 that narrow-band light source doesn't appear in --

4 A. It doesn't. It does not.

5 Q. -- this claim, correct?

6 A. That is correct.

7 Q. Okay. So let's assume that your construction is

8 correct here and that the applicant intended to limit

9 the use of a diffuser in the '516 patent to only the

10 narrow-band light sources.

11 Do you have an understanding of why that would be

12 the case?

13 A. My speculation, my guess as to what the applicant was

14 doing?

15 MR. PERRY: I'm going to object that it

16 calls for speculation. But you can go ahead and

17 answer.

18 A. So fluorescence imaging, you've got two general types

19 of light sources. Your white light or broad light

20 sources -- broadband sources -- excuse me -- that are

21 just basically used for taking images, you know, camera

22 pictures, etcetera.

23 Then you've got fluorescence, your narrow-band

24 sources that are exciting, the fluorescence.

25 Fluorescence is a very inefficient process. So you

1 need very bright narrow-band sources that evenly cover
2 the object in question due to the imaging. And so,
3 therefore, diffusing is very, very important for the
4 excitation light source. And the white-light source or
5 broadband sources, the photography may have been so
6 sufficient, the photon count may have been sufficient
7 such that there was never any need. So that is my
8 speculation. I do not know that it's right, but it is
9 a guess as to what might have happened there.

10 **Q. Is it possible to use a diffuser with a broadband light**
11 **source?**

12 A. Yes, of course. In general, yes. In general.

13 **Q. Okay. Is it possible to use a diffuser with a**
14 **broadband lightsource in a fluorescent imaging**
15 **application?**

16 A. It probably isn't necessary in a fluorescence imaging
17 application.

18 **Q. You're not aware of any applications in which that**
19 **would be desirable?**

20 A. I can imagine applications where it would be desirable,
21 yes, but not in the context of the '516 patent.

22 **Q. Okay. But you agree that the term "diffuser" and**
23 **"optical diffusers" generally is well known to a person**
24 **of ordinary skill in the art?**

25 A. Yes.

1 **Q. Right?**

2 A. Yes.

3 **Q. So, generally speaking, outside the context of the '516**
4 **patent, you'd agree that there are applications in**
5 **which it may be desirable to use a diffuser with a**
6 **broadband light source, right?**

7 A. Yes, definitely.

8 MS. JENKINS: Okay. I'm finished with this
9 line of questioning. We can go off the record.

10 MR. PERRY: Okay. Thank you.

11 THE VIDEOGRAPHER: Going off the record.

12 The time is now 2:24 p.m.

13 (Break taken from 2:24 p.m. - 2:35 p.m.)

14 THE VIDEOGRAPHER: We're back on the record.

15 The time is now 2:35 p.m.

16 BY MS. JENKINS:

17 **Q. Welcome back, Dr. Talghader.**

18 A. Yes. Thank you.

19 **Q. Just a few more questions.**

20 **What did you do to prepare for your deposition**
21 **today?**

22 A. Well, I had three sessions with Mr. Perry and
23 Mr. Bianchi, and a couple of short phone calls. When I
24 say short, less than 30-minute phone calls, and one
25 that might have been longer; 50 minutes, I think.

1 **Q. Okay. When did those phone calls take place?**

2 A. The phone calls, I don't remember the specific dates.
3 I believe they were Monday and Tuesday, but I -- you
4 know, thematically, that's correct, but exactly, I
5 don't know.

6 **Q. And did you meet with anybody else to prepare for your**
7 **deposition?**

8 A. No.

9 **Q. And have you spoken to anyone else about the opinions**
10 **that you've offered here today or in your report?**

11 A. No.

12 **Q. Do you know if there was anyone else present on those**
13 **phone calls with you, Mr. Perry, and Mr. Bianchi?**

14 A. On the phone calls were with Mr. Bianchi, or at least
15 the ones that I'm remembering off the top of my head.
16 And, no, I do not know if there were other people
17 there, but certainly the context of the call made me
18 think it was just he and I.

19 **Q. What else did you do to prepare for your deposition**
20 **today?**

21 A. I read through the patents and the case history and the
22 -- my report.

23 **Q. Mm-hmm. Earlier in your deposition, we discussed**
24 **Exhibit C to your report, your list of materials**
25 **considered.**

1 A. Mm-hmm.

2 **Q. Since you submitted your report on October 17th, have**
3 **you reviewed any additional materials that are not**
4 **listed here?**

5 A. As part of the primary preparation, no. But I did do
6 some searches in fluorescence just to see the history
7 of the fluorescence up to 2010. And I'm sure that
8 Mr. Perry and Mr. Bianchi might have, you know, shown
9 me some other materials that I don't recall off the top
10 of my head, but -- but nothing in the primary -- my
11 conclusions are based on, you know this kind of thing.

12 **Q. Okay. Okay. Let me ask a different question.**

13 **Setting aside those materials not listed on Exhibit**
14 **C that you looked at as background to your report --**

15 A. Mm-hmm.

16 **Q. -- did you look at anything else additional or new**
17 **since submitting your report on October 17th?**

18 A. Okay. I think I -- maybe I misunderstood. So you're
19 saying setting aside the things that I looked at?

20 **Q. Well, let me rephrase. Let me rephrase.**

21 **Have you looked at anything new pertaining to this**
22 **case, as background or otherwise, since you submitted**
23 **your report?**

24 A. I -- again, I think that, you know, some of the --
25 there may have been some brochures that I saw about the

1 two instruments and -- or whatever, actually. I don't
2 even know how many models are involved. And, again,
3 the back -- the papers that I was looking on for
4 history of fluorescence just so that I'd know a little
5 bit more about the timing and stuff of the advances,
6 those are what I remember.

7 Q. Okay.

8 A. There could have been other things, but nothing primary
9 that I'm basing my opinions on.

10 Q. Okay. Did you review any of those sources for the
11 first time after you submitted your report?

12 A. Well, the papers certainly.

13 Q. The papers. Okay.

14 A. The ones that I was kind of developing a history of,
15 you know. And, again, it's possible that I was shown
16 something by Mr. Perry or Mr. Bianchi that I just
17 didn't trigger as being primarily important.

18 Q. Okay. Did you speak with anyone employed by Scintica
19 as part of your engagement in this case?

20 A. No.

21 Q. Anyone who works for Vilber?

22 A. No.

23 Q. Did you do anything else to prepare for your deposition
24 today that we haven't already discussed?

25 A. Not that I can think of.

1 MS. JENKINS: Okay. No further questions.
2 Thank you so much for your time, Dr. Talghader. I
3 appreciate it.

4 THE WITNESS: Okay. Thank you, Ms. Jenkins.

5 MR. PERRY: Doctor, I just have a couple of
6 topics I want to follow up on.

7 THE WITNESS: Okay.

8 EXAMINATION

9 BY MR. PERRY:

10 Q. The first is, at the beginning of the deposition today,
11 you were asked about whether you had any expertise in
12 in vivo imaging and using in vivo fluorescent machines.

13 As far as the work you've done under this
14 engagement to interpret the patent and the patent
15 claims that we're dealing with here, does not having
16 experience in in vivo imaging in any way undermine your
17 ability to give the opinions you gave?

18 A. It does not. My engagement has been on the optical
19 systems in which I am an expert in.

20 In vivo, the biological part, as we discussed at
21 the beginning, I am not a -- neither a biologist, nor a
22 doctor. And so that portion I would be unable to opine
23 on. But all the optical instruments and fluorescence
24 that we we're talking about, I'm able to opine on it.

25 Q. And is there anything in the patent or the

1 specification or the file history that would make your
2 interpretation different if we're dealing with In vivo
3 or other biologic or nonbiologic fluorescent imaging?

4 A. No.

5 Q. And can you explain why that is, Doctor?

6 A. Well, fluorescence is a common technology and has been
7 you know, developed for decades. The -- and it applies
8 to many different areas, and we're not talking about
9 just biology. There are florescent applications in
10 other areas.

11 As we mentioned earlier, we're even using them to
12 track microparticles. You know, essentially, if you
13 see a microparticle travelling down a microfluidic
14 system, you can look at its fluorescence to see, oh,
15 this one's here, this one's here, this one's here, this
16 one's here. And there's no organic molecules, except
17 for the fluorophore itself, involved in that at all.

18 Q. So, as far as the opinions you've expressed with regard
19 to interpreting these patent claims, are they
20 essentially then agnostic as to whether you're dealing
21 with biologic fluorescence or biologic subjects or
22 nonbiologic subjects?

23 A. Yes, they are agnostic to that.

24 Q. Okay. I'd like you to go to paragraph 44 of your
25 report.

1 A. Okay.

2 Q. And just read that paragraph to yourself. Then I want
3 to ask a follow-up question after you've done that.

4 A. Okay. I've finished.

5 Q. Does the way paragraph 44 is written, accurately state
6 what you intended to say about the subject matter
7 that's addressed in that paragraph?

8 A. Yes.

9 Q. Then I'd like to go to -- if you can just give me a
10 moment here -- to page 21 of your report, paragraph 63.
11 I'm sorry. I'm in the wrong one. Bear with me.

12 Page 25, paragraph 79. Are you there?

13 A. Yes, I'm here.

14 Q. Okay. And then if we look at the proposed construction
15 of the -- of the phrase in the table on the right-hand
16 column that says, Defendant's Proposed Construction or
17 Position.

18 A. Mm-hmm, yes.

19 Q. And you wrote, "a diffuser positioned within at least
20 some of the holes of the member that contain
21 narrow-band light sources."

22 Does this -- does this construction require both
23 that the diffuser is positioned within the holes or at
24 least some of the holes and over or adjacent to
25 narrow-band light sources?

1 A. Yes, both must be there for that construction.

2 MR. PERRY: Okay. That's all I had. No

3 further questions.

4 MS. JENKINS: Okay. Just give me a moment

5 here.

6 FURTHER EXAMINATION BY MS. JENKINS:

7 Q. Just one more question, Dr. Talghader.

8 Mr. Perry asked you about your experience with

9 fluorescent imaging outside the context of in vivo or

10 biologic systems, right?

11 A. Yes.

12 Q. And we talked about that earlier in your deposition

13 when we were going over your CV, right?

14 A. Yes.

15 Q. And you said that you couldn't recall exactly, but it's

16 probably been more than five years since you last did

17 any work in that area, right?

18 A. In fluorescence, using fluorescence, it's -- yes, on

19 that order or longer, yes.

20 MS. JENKINS: Okay. No further questions.

21 MR. PERRY: No further questions.

22 Doctor, you have the right to read and sign this,

23 the transcript of this deposition after it's done, and

24 I'm going to recommend that you do that.

25 THE WITNESS: Okay.

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1 MR. PERRY: So we will read and sign.

2 THE WITNESS: Thank you very much,

3 Ms. Jenkins.

4 MS. JENKINS: Okay. Thank you.

5 THE VIDEOGRAPHER: This concludes the

6 deposition of Joseph Talghader. The time is now 2:47

7 p.m.

8 (The deposition concludes at 2:47 p.m.)

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1 STATE OF MINNESOTA

2 CERTIFICATE

3 COUNTY OF CARVER

4 I, Christine M. Clark, RPR, hereby certify

5 that I reported the Video-Recorded Deposition of Joseph

6 J. Talghader, Ph.D., on this 16th day of December 2022,

7 and that the witness was by me first duly sworn to tell

8 the truth and nothing but the truth concerning the

9 matter in controversy aforesaid;

10 That I was then and there a notary public in

11 and for the County of Carver, State of Minnesota; that

12 by virtue thereof I was duly authorized to administer

13 an oath;

14 That the foregoing transcript is a true and

15 correct transcript of my stenographic notes in said

16 matter, transcribed under my direction and control;

17 That the cost of the original has been charged

18 to the party who noticed the deposition and that all

19 parties who ordered copies have been charged at the

20 same rate for such copies;

21 That the reading and signing of this deposition

22 was not waived;

23 That I am not related to any of the parties

24 hereto, nor interested in the outcome of the action and

25 have no contract with any parties, attorneys or persons

with an interest in the action that has a substantial

tendency to affect my impartiality;

WITNESS MY HAND AND SEAL this 22nd day of

December 2022.



Christine M. Clark, RPR
Notary Public

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1 DECLARATION UNDER PENALTY OF PERJURY

2 Case Name: Spectral Instruments Imaging, LLC vs.

3 Scintica, Inc.

4 Date of Deposition: 12/16/2022

5 Job No.: 10111334

6 I, JOSEPH J. TALGHADER, PH.D., hereby certify

7 under penalty of perjury under the laws of the State of

8 _____ that the foregoing is true and correct.

9 Executed this _____ day of

10 _____, 2022, at _____.

11

12

13

14 JOSEPH J. TALGHADER, PH.D.

15

16 NOTARIZATION (If Required)

17 State of _____

18 County of _____

19 Subscribed and sworn to (or affirmed) before me on

20 this _____ day of _____, 20____,

21 by _____, proved to me on the

22 basis of satisfactory evidence to be the person

23 who appeared before me.

24 Signature: _____ (Seal)

25

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Scintica, Inc.

1	DEPOSITION ERRATA SHEET
2	Case Name: Spectral Instruments Imaging, LLC vs. Scintica, Inc.
3	Name of Witness: Joseph J. Talghader, Ph.D.
4	Date of Deposition: 12/16/2022
5	Job No.: 10111334
6	Reason Codes: 1. To clarify the record.
7	2. To conform to the facts.
8	3. To correct transcription errors.
9	Page _____ Line _____ Reason _____
10	From _____ to _____
11	Page _____ Line _____ Reason _____
12	From _____ to _____
13	Page _____ Line _____ Reason _____
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15	Page _____ Line _____ Reason _____
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26	From _____ to _____

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