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Transcript of Thomas Boyajian

Date: December 10, 2024

Case: Certain Photodynamic Therapy Systems & Pharmaceutical Products (337-TA-1411)

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WORLDWIDE COURT REPORTING & LITIGATION TECHNOLOGY

IPR2025-00287

Biofrontera Inc. et al v. Sun Pharmaceutical Industries, Inc.

Sun Pharmaceutical's Exhibit 2053

EX2053, Page 1

1 UNITED STATES INTERNATIONAL TRADE COMMISSION
2 WASHINGTON, D.C.

3 -----X

4 In the Matter of: :
5 CERTAIN PHOTODYNAMIC :
6 THERAPY SYSTEMS, COMPONENTS :
7 THEREOF, AND PHARMACEUTICAL :
8 PRODUCTS USED IN COMBINATION :
9 WITH THE SAME. :

10 -----X

11 Investigation No. 337-TA-1411

12

13

14 DEPOSITION OF THOMAS BOYAJIAN

15 TUESDAY, DECEMBER 10, 2024

16 9:30 A.M.

17

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19

20 Job No.: 563516

21 Pages 1 - 180

22 Reported by: Adrienne Mignano, RPR

1 Deposition of THOMAS BOYAJIAN, held at the
2 law firm of:

3
4 POLSINELLI, LLP
5 600 Third Avenue
6 New York, New York 10022
7

8 Pursuant to Notice, before Adrienne M.
9 Mignano, a Registered Professional Reporter and Notary
10 Public in and for the State of New York and Washington
11 D.C.
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A P P E A R A N C E S

ON BEHALF OF BIOFRONTERA

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ALSO PRESENT:

Jennifer Dereka, Esq. - Sun Pharma

1 where are we going? I want to get you what you
2 need.

3 Q I would like to understand how you
4 came up with -- you and your team came up with
5 the so-called invention set forth in the
6 patents.

7 A So for this invention we wanted to
8 utilize LEDs in place of fluorescent. We wanted
9 to have movable panels. There were a number of
10 other things we were trying to achieve. Not all
11 of them do I recollect perfectly, but we also
12 had to hit power and uniformity. The technology
13 is much different, and, therefore, those were
14 the challenges.

15 Q And what did do you to come up with
16 the design?

17 A Lots of trial and error, figuring out
18 different ways of achieving uniformity, figuring
19 out different configurations of geometry to
20 create the output required. Learning how LEDs
21 react and are much different than fluorescent,
22 learning the differences from and to and how we

1 could get to achieve what we needed to achieve
2 but with what I would consider a drastically
3 different technology and an ever-changing
4 technology.

5 Q And how did you learn about the
6 differences in LEDs between LEDs and
7 fluorescents?

8 A Trial and error.

9 Q Did you read any literature about it?

10 A When you say "literature," like
11 manufacturing literature from the LED
12 manufacturers?

13 Q Anything written down whether it was
14 online, in paper.

15 A The specifications for the LEDs we
16 used, we would always read the specifications so
17 we knew what we were -- it's compelling. You
18 had to know what you were using. Aside from
19 that, there wasn't much help. What we were
20 doing was so different than what had been done
21 in the past.

22 Q Which way was it different?

1 A Again, LEDs don't act like fluorescent
2 lightbulbs. Their directional output is
3 different. Their power requirements are
4 different. Their point density is different.
5 And there's probably 20 other differences I
6 can't remember. But learning through that and
7 making prototypes is how we got through that.

8 Q How many prototypes did you make?

9 A No idea. No idea. And I wouldn't
10 even know how to count them. You know, one is
11 just a tweak of another. We created a lot of
12 prototypes.

13 Q Did you create any records of the
14 prototypes you created?

15 A I don't recollect that.

16 Q So you didn't create a single document
17 that showed what was in a prototype you made?

18 MS. CHEN: Objection. Misstates
19 testimony.

20 A Can you ask that again. Sorry.

21 Q Yeah. You didn't create a single
22 document that showed what the prototype was that

1 of data we got created another issue to
2 overcome. And who did what and who said what
3 and when, I wish I could set the clock back and
4 see it all, but I -- yeah, that's just too
5 granular for something that was moving that
6 fast.

7 Q What were some of the challenges?

8 A That is a pretty broad question.

9 As I mentioned before, LEDs don't act
10 like fluorescents. Having separate panels is
11 not easy. Not easy. Uniformity is a big
12 challenge.

13 (Discussion held off the record.)

14 Q While she's doing that, so you
15 mentioned LEDs, panels, uniformity. Any other
16 challenges?

17 A Those are the ones that come to mind
18 quickly. I mean, this -- you're creating
19 something new. There's always challenges
20 because you don't know what you're going to hit,
21 and that's the fun.

22 Q Right. So what's the challenges with

1 having multiple panels?

2 A So if you have something like a
3 fluorescent, it's just -- it's non-moving.
4 There's no gaps. There's no -- it is a very
5 uniform light output because it is a uniform
6 light. With LEDs you have points of light and
7 panels geometrically to give an area that you
8 can't have light. So -- and as well as, you
9 know, different areas, as you started testing,
10 would be more intense and less intense than
11 other areas. And you just had to keep
12 constantly adjusting. And sometimes you try to
13 figure out why, and sometimes you don't bother
14 figuring out why. Just trial and error, let's
15 fix it.

16 Q And what was the solution you came up
17 with?

18 A For which challenge?

19 Q For the challenge with panels and
20 gaps.

21 A There were lots of solutions. There
22 was no one thing that made it all work.

1 Q Okay. What were the solutions that
2 you came up with?

3 A For the panels, one of the big things
4 was reducing the gap, and that was hinging.

5 For the intensity, there were a number
6 of solutions, and that's why, you know, we --
7 each panel had to be individually configurable
8 because no panel -- I was going to say no panel
9 acted like the other panel, but the symmetric
10 ones often acted similar to each other but not
11 to their adjacent ones. So, for lack of a
12 better word, configurable, you know, was kind of
13 tuning, trying to get the power output correct.

14 Q And when you say "configurable," do
15 you mean changing the power output of individual
16 lights?

17 A That would be one example of.

18 Q What other examples of configurable to
19 solve the intensity problem?

20 A You could determine where you were
21 going to put them, determine where you were
22 going to put them. There was -- I guess, yeah,

1 there is no one answer to that question.
2 There's a lot of different ways to do that. And
3 we tried to track all of the ways and figure out
4 how to use all of the ways to do that, you know,
5 geometry and power and, you know, configuring
6 areas to be separately controlled. There's just
7 a lot of ways to do that, as you would imagine.

8 Q And was one of the ways putting -- or
9 having more intensity of light along the top and
10 bottom of the panels in other areas of the
11 panel?

12 A When you say "top and bottom," with
13 the U facing what direction?

14 Q That is a good question. I guess I
15 meant along the short edges of the panels.

16 A Got it. So what was the question
17 again? I'm sorry.

18 Q Was one of the ways you tried to solve
19 the intensity problem putting -- or having a
20 greater intensity of light along the short edges
21 of the panels?

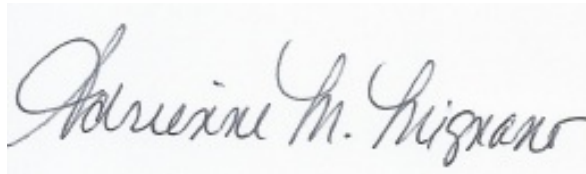
22 A Yes. I believe so. I believe so. I

CERTIFICATE OF REPORTER - NOTARY PUBLIC

I, ADRIENNE MIGNANO, the officer before whom the foregoing deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of the testimony given; that said testimony was taken by me and thereafter reduced to typewriting under my direction; that reading and signing was requested; and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this 20th day of December, 2024.

My Commission Expires: June 2026.

A handwritten signature in cursive script, reading "Adrienne M. Mignano", is displayed within a light gray rectangular box.

ADRIENNE MIGNANO, RPR