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1 UNITED STATES PATENT AND TRADEMARK OFFICE  
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD  
3  
4 LIQUIDIA TECHNOLOGIES, )  
INC., )  
5 ) IPR 2021-00406  
Petitioner, ) U.S. Patent No. 10,716,793  
6 )  
vs. ) VOLUME II  
7 )  
8 UNITED THERAPEUTICS )  
CORPORATION, )  
9 Patent Owner.)  
\_\_\_\_\_)  
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11  
12  
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14  
15 REMOTE DEPOSITION OF  
16 IGOR GONDA, Ph.D.  
17 MARCH 14, 2022  
18  
19  
20  
21  
22  
23  
24 Reported by:  
Susan Myong  
CSR 13365  
25 Job No. 10097372

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14 REMOTE DEPOSITION OF IGOR GONDA, Ph.D., a  
15 witness herein, taken on behalf of Patent  
16 Owner, at 1:09 p.m., on Monday, March 14,  
17 2022, before Susan Myong, CSR 13365.  
18  
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2  
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17  
18  
19  
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21  
22  
23  
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I N D E X

1 WITNESS: IGOR GONDA, Ph.D.  
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3 EXAMINATION BY: PAGE  
4 MR. DYKHUIS 145  
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E X H I B I T S

NUMBER	DESCRIPTION	PAGE
12	EXHIBIT 1007 Vos JESC	192
13	EXHIBIT 1062 Ultrasonic vs Jet Nebulization	163
14	EXHIBIT 1099 Leigh 1991	180
15	EXHIBIT 1107 Reply declaration	150
16	EXHIBIT 2100 Tab 6	164
17	EXHIBIT 2101 Tab 5	174
18	EXHIBIT 2102 Tab 9	180
19	EXHIBIT 2103 Tab 4	198

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1 Monday, March 14, 2022  
2 1:09 p.m.  
3  
4 THE REPORTER: Pursuant to the Federal Rules of  
5 Civil Procedure, I am required to state the following:  
6 My name is Susan Myong. My business address is 21143  
7 Hawthorne Boulevard, Number 323, Torrance, California  
8 90503. This is the deposition of Igor Gonda, Ph.D., in  
9 the matter of Liquidia Technologies v. United  
10 Therapeutics Corp, beginning at 1:09 Pacific Standard,  
11 on Monday, March 14, 2022. This deposition is being  
12 taken remotely with the witness located in Melbourne,  
13 Australia.  
14 Do all counsel agree that I may swear in the  
15 witness remotely?  
16 MR. DYKHUIS: Yes.  
17 MR. DAVIES: Yes.  
18 THE REPORTER: Please state your appearances  
19 and anyone with you, starting with the taking attorney,  
20 and then you may begin.  
21 MR. DYKHUIS: Yeah. Art Dykhuis with  
22 McDermott, Will & Emery on behalf of the patent owner,  
23 United Therapeutics Corporation, and with me is  
24 Josh Revilla also from McDermott.  
25 MR. DAVIES: Jonathan Davies from Cooley LLP

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1 for petitioner Liquidia Technologies. And with me  
2 today, also from Cooley, is my colleague, Douglas Cheek.  
3  
4 IGOR GONDA, Ph.D.,  
5 a witness herein, having been sworn remotely, testifies  
6 as follows:  
7  
8 EXAMINATION  
9 BY MR. DYKHUIS:  
10 **Q Well, good morning, Dr. Gonda.**  
11 A Hello.  
12 **Q Thank you for finding some time for us for this**  
13 **deposition today. Some of this will be -- sound similar**  
14 **because we've done this a couple times before, but can**  
15 **you just state your full name for the record, please.**  
16 A Igor Gonda.  
17 **Q What is your address, sir?**  
18 A My address in the United States is 683 Main  
19 Street, Dennis, Massachusetts ZIP Code 02638. And unit  
20 number is B24. But currently I'm at Unit 2, 58-62 Marne  
21 Street, South Yarra, Victoria, 3141 Australia.  
22 **Q And are you at home for the deposition?**  
23 A I'm at home.  
24 **Q Is there anyone there at home with you in the**  
25 **room?**

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1 A I think that they're all still asleep.  
2 **Q Do you have any communication devices open or**  
3 **chat windows or anything of the like for communication**  
4 **during the deposition?**  
5 A No. All that I have at present is the Zoom  
6 screen.  
7 **Q Do you have any documents with you, Dr. Gonda?**  
8 A I got my reply declaration for this case, for  
9 IPR.  
10 **Q And is that -- just to confirm, you're talking**  
11 **about Exhibit 1107?**  
12 A Yes, that's correct.  
13 **Q Does that copy have any notes or annotations or**  
14 **markings on it?**  
15 A No, it does not.  
16 **Q Other than the reply declaration, do you have**  
17 **any other documents with you?**  
18 A No, I don't.  
19 **Q As a reminder, Dr. Gonda, you understand that**  
20 **even though this is a deposition being conducted**  
21 **remotely, you're under the same oath as you would be in**  
22 **court; correct?**  
23 A Yes.  
24 **Q And just a reminder to -- let's try to not**  
25 **speak over each other and not too quickly for our court**

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1 **reporter. And if you don't understand a question,**  
2 **please let me know. If you do answer, I'll assume you**  
3 **understood the question; is that fair?**  
4 A Yes.  
5 **Q Thank you.**  
6 A Yes.  
7 **Q I know that you have a stop later this morning,**  
8 **so I'll try to move quickly today. Usually I do take a**  
9 **break every hour or so. If you need a break at some**  
10 **point, we can do that as long as you answer any pending**  
11 **questions; is that fair?**  
12 A Yes.  
13 **Q Is there any reason you cannot give full, true,**  
14 **and accurate testimony today?**  
15 A I'm unaware of any reasons.  
16 **Q How did you prepare for today's deposition,**  
17 **Dr. Gonda?**  
18 A I had a conversation with the counsel about the  
19 deposition yesterday.  
20 **Q For how long was that conversation?**  
21 A About three hours.  
22 **Q Who participated in that conversation?**  
23 A It was the same counsel as we have today,  
24 Jonathan Davies and Douglas Cheek, and there was also  
25 another Cooley lawyer present.

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1 Q Who was the other lawyer?  
2 A Deepa, if I can pronounce it, Kannappan. Yeah.  
3 Q Okay. Did you speak with anyone else other  
4 than that conversation with three lawyers yesterday in  
5 preparation for today's deposition?  
6 A No, I did not.  
7 Q So you mentioned you have a copy of your reply  
8 declaration in front of you, Exhibit 1107, in this IPR.  
9 A Yes, I do.  
10 Q Did you work with counsel to prepare that  
11 declaration?  
12 MR. DAVIES: Objection. Form.  
13 THE WITNESS: Sorry. Could you please repeat  
14 the question.  
15 BY MR. DYKHUIS:  
16 Q Did you work with counsel to prepare the  
17 declaration?  
18 A Yes, I did.  
19 MR. DAVIES: Objection to form.  
20 You can answer.  
21 THE WITNESS: Yes, I did.  
22 BY MR. DYKHUIS:  
23 Q Which counsel did you work with to prepare the  
24 reply declaration?  
25 A You know, I don't recall who are the people,

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1 but I think that it was the same three people that I  
2 talked to yesterday.  
3 Q Okay. Who did you work with the most of  
4 Mr. Davies, Mr. Cheek, and Ms. Kannappan?  
5 MR. DAVIES: Objection. Form.  
6 THE WITNESS: Mr. Douglas Cheek.  
7 BY MR. DYKHUIS:  
8 Q There's also a litigation between United  
9 Therapeutics and Liquidia; correct? Are you aware?  
10 A You mean the district court litigation.  
11 Q Right.  
12 A Yes. I'm aware of that, yes.  
13 Q Did you work with the same counsel to prepare  
14 expert reports in that litigation?  
15 MR. DAVIES: Objection. Scope. Form.  
16 THE WITNESS: Can I answer?  
17 MR. DAVIES: You can answer that, but -- you  
18 can go ahead and answer that. That's okay.  
19 THE WITNESS: Yeah. There was one other  
20 counsel involved from Cooley.  
21 BY MR. DYKHUIS:  
22 Q And who was that?  
23 A Can you help me? Sanya -- yeah, I -- yeah, I  
24 really don't -- honestly don't remember the full name.  
25 Yup.

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1 Q Right. Thank you.  
2 MR. DYKHUIS: So, Mr. Ortiz, if you could share  
3 an electronic copy of that Exhibit 1107, please.  
4 Q Dr. Gonda, just let me know when that comes  
5 through and then I have a couple questions on that.  
6 A I don't see that. Would it be in the chat?  
7 Q I believe it will come through in the chat.  
8 There you go. You have the link right now.  
9 A Okay.  
10 MR. DYKHUIS: Oh, so this is the wrong one.  
11 This is 1007. Can we have 1107, please.  
12 (Exhibit 1107 was marked for  
13 identification and attached hereto.)  
14 BY MR. DYKHUIS:  
15 Q And then while we're waiting for that one to  
16 come through, Dr. Gonda, in preparing your reply IPR  
17 declaration, did you have any communication with  
18 Dr. Nicholas Hill?  
19 A No, I did not.  
20 Q So now you should have a copy of 1107.  
21 A Yes, I do.  
22 Q And is that 1107 the same document as what you  
23 have printed?  
24 A I believe it is.  
25 Q So feel free to look at either one. I just

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1 wanted to confirm that we're looking at the same thing.  
2 A Okay.  
3 Q On the last page of the declaration --  
4 A Yes.  
5 Q -- is that your signature on page 50?  
6 A It is.  
7 Q Is everything in this reply declaration true as  
8 far as you know?  
9 A As far as I know, it is.  
10 Q Could you turn to paragraph 34, please. Just  
11 let me know when you get there.  
12 A Yes, I'm working on it.  
13 Q Again, feel free to use the electronic or paper  
14 copy, whatever is easiest for you.  
15 A I'm using the electronic copy. Thirty-four,  
16 yes.  
17 Q On paragraph 34, on page -- so it starts on  
18 page 25 and continues on to page 26. On page 26, the  
19 third line, you make a reference to water as the -- "By  
20 far the most common and likely only solvent used in  
21 FDA-approved nebulizer solutions in May 2006."  
22 And then at the end of paragraph 35 [sic], you  
23 state, "A POSA reading Voswinckel, J-E-S-C, JESC, would  
24 have reasonably assumed that the inhaled solution of  
25 treprostinil was aqueous."

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1 Do you see that text?  
2 A Yes, I do.  
3 Q Is there -- in the context of a continuous  
4 nebulizer -- let me back up actually.  
5 You recall the Voswinckel JESC reference as  
6 describing a continuous nebulizer; correct?  
7 A Yes.  
8 Q In the context of a continuous nebulizer, such  
9 as that in Voswinckel JESC and a solution prepared using  
10 water as the solvent, is there a maximum of how much  
11 water the air can hold as an aerosol upon nebulization?  
12 MR. DAVIES: Objection. Form.  
13 THE WITNESS: Yes, there is a limit to how  
14 much -- sorry. Can you please just explain the question  
15 to me.  
16 BY MR. DYKHUIS:  
17 Q So --  
18 A Can you just rephrase it. Yes.  
19 Q Sure.  
20 Is there a limit as to how much water or  
21 nebulized drug solution that the air can hold as an  
22 aerosol after nebulization?  
23 MR. DAVIES: Objection. Form.  
24 You can answer.  
25 THE WITNESS: I don't understand the question

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1 "hold." There is no limit, provided that you've got  
2 enough air. And then, of course, it will depend on the  
3 temperature and humidity of the air. How much of that  
4 material is in the liquid phase and how much has  
5 evaporated. So it's a complicated question that you're  
6 asking. But in principal, no, there is no limit.  
7 BY MR. DYKHUIS:  
8 Q So if you have a finite quantity of air, then  
9 you would have a limit as to how much aerosol could be  
10 held in the air, depending on temperature and humidity  
11 as well; correct?  
12 A Yes.  
13 MR. DAVIES: Objection. Form.  
14 BY MR. DYKHUIS:  
15 Q If you -- the Voswinckel JESC article, or  
16 abstract, identifies an OptiNeb nebulizer.  
17 Do you remember that?  
18 A Yes.  
19 Q If you took the OptiNeb or a different  
20 ultrasonic nebulizer and you capped or plugged the  
21 mouthpiece -- are you with me so far? Just cover the  
22 mouthpiece up. Does that make sense so far?  
23 MR. DAVIES: Objection. Form.  
24 THE WITNESS: The only -- sorry. You would  
25 stop -- can you just repeat it. You would -- what would

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1 you do?  
2 BY MR. DYKHUIS:  
3 Q If you covered or plugged the mouthpiece on the  
4 nebulizer and then you run the nebulizer in a continuous  
5 mode -- are you with me so far?  
6 A Yes.  
7 Q -- eventually the air inside the nebulizer will  
8 become saturated with the aerosol; correct?  
9 MR. DAVIES: Objection. Form.  
10 THE WITNESS: Yes. It would be accumulating.  
11 I'm not sure that it's going to be saturated, but it  
12 will be accumulating. Now, I think, what I said before,  
13 the balance between the amount evaporated and the amount  
14 in the water droplet might be changing, yes.  
15 Yeah. I don't know what you're getting at, so  
16 can you just --  
17 BY MR. DYKHUIS:  
18 Q Well, what I'm --  
19 A -- just explain what is the context of this,  
20 please.  
21 Q Sure. I'll get there.  
22 I'm thinking of the word "condensation." I  
23 don't know if that's the right terminology. But in the  
24 question I posed to you, with an OptiNeb nebulizer and  
25 the mouthpiece is capped and it's running in a

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1 continuous mode --  
2 A Yes. I mean, it's a hypothetical question.  
3 I don't know why anybody would be using a continuous  
4 nebulizer with the mouthpiece plugged. I mean, I just  
5 don't understand why we are discussing it.  
6 Q Sure. Yeah, no. That's fine. We'll get  
7 there.  
8 So my question is: You have talked about the  
9 rate for continuous nebulizers before and their rate of  
10 output. And my question for you is: If the mouthpiece  
11 on a nebulizer was capped, wouldn't the rate of the  
12 nebulization slow down as the air inside the nebulizer  
13 becomes saturated with aerosol?  
14 MR. DAVIES: Objection. Form.  
15 THE WITNESS: There is -- it's not called  
16 condensation. It's called sedimentation. So some of  
17 the droplets would sediment, but that still would not  
18 have a big impact on output. No.  
19 BY MR. DYKHUIS:  
20 Q So you said -- so if a nebulizer was running in  
21 continuous mode and the mouthpiece is capped, it's your  
22 opinion that the output would maintain essentially the  
23 same, no matter how long the nebulizer continued  
24 running?  
25 MR. DAVIES: Objection. Form.

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1 You can answer.

2 THE WITNESS: No. But I just said it's a

3 hypothetical question because in reality, the nebulizer

4 would be -- the mouthpiece would be open because the

5 patient -- the subject is inhaling on it. So I just

6 don't understand why we are discussing it. I mean, if

7 it is in the -- yeah, if it is in continuous mode, then

8 the aerosol would be either going out into the patient

9 or it would be coming out of the mouthpiece when the

10 patient is exhaling. So I just don't understand what is

11 the situation in reality that this would represent.

12 BY MR. DYKHUIS:

13 **Q So when a patient breathes, they inspire, and**

14 **then they might either immediately breathe out or they**

15 **might hold their breath momentarily; is that correct?**

16 A Yes. But with continuous nebulization there is

17 not -- usually it is not recommended that the patient

18 will hold their breath. They continuously -- they

19 breathe normal.

20 **Q And when the patient breathes out, they keep**

21 **their mouth on the mouthpiece; correct?**

22 A There is usual -- yes. Yeah. They will keep

23 typically their mouths on the mouthpiece if it's usually

24 an exhaust valve.

25 **Q Can the humidity -- excuse me. You mentioned**

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1 earlier temperature and humidity.

2 **Both of those things affect how much aerosol**

3 **can be held in the air; correct?**

4 A Yes.

5 **Q Could temperature and humidity have an effect**

6 **on the rate of nebulization from a continuous ultrasonic**

7 **nebulizer?**

8 A They have relatively smaller effect than the

9 jet nebulizers. There is some effect, but it's

10 relatively small.

11 **Q Let's look at paragraph 22 in your reply**

12 **declaration, please. And just let me know when you're**

13 **there, Dr. Gonda.**

14 A Yes, I'm there.

15 **Q So on the first sentence, you reference**

16 **Professor McConville and his position regarding**

17 **nebulizer devices can have a wide variety of**

18 **efficiencies.**

19 **You see the first sentence in your -- in**

20 **paragraph 22?**

21 A Yes, I do.

22 **Q And then about halfway down the page, still in**

23 **paragraph 22, you say, "In fact, the only ultrasonic**

24 **nebulizer cited by Professor McConville had an**

25 **efficiency of 86 percent."**

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1 **Do you see that?**

2 A Correct.

3 **Q Do all ultrasonic nebulizers have an efficiency**

4 **of 86 percent?**

5 A No.

6 **Q Did all ultrasonic nebulizers in 2006, have an**

7 **efficiency of 86 percent?**

8 A No.

9 **Q But some ultrasonic nebulizers in 2006, would**

10 **have an efficiency of lower than 86 percent; correct?**

11 MR. DAVIES: Objection. Form.

12 THE WITNESS: That is possible.

13 But in the context of JESC, that group of

14 people, addition, were in a number of the publications

15 emphasizing that they are striving towards high

16 efficiency, rapid nebulization to increase the

17 convenience for patients. So I would have expect that

18 whatever that group was using in that abstract, which

19 was quite late in the process -- the product development

20 for pulmonary artery hypertension treatment with

21 prostacyclin, that they would have used one of the

22 higher efficiency nebulizers.

23 BY MR. DYKHUIS:

24 **Q But as far as my question, some ultrasonic**

25 **nebulizers in 2006, would have had an efficiency of**

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1 **lower than 86 percent; correct?**

2 MR. DAVIES: Objection. Form.

3 THE WITNESS: Yes.

4 MR. DAVIES: You can answer.

5 THE WITNESS: That -- yes.

6 BY MR. DYKHUIS:

7 **Q Do you have an opinion on how many ultrasonic**

8 **nebulizers were available and known to the POSA in 2006?**

9 A I really wouldn't know how many ultrasonic

10 nebulizers were familiar to the POSA, no.

11 **Q Do you think it would be ten or more?**

12 A Yes. That would be a reasonable number, yeah.

13 **Q Could it be 20?**

14 A I don't think that a POSA would have considered

15 as many as 20, no.

16 **Q Let me make sure I understand. You said -- you**

17 **used the word "considered."**

18 **Do you think that there were publicly available**

19 **or in existence in 2006, at least 20 ultrasonic**

20 **nebulizers?**

21 MR. DAVIES: Objection. Form.

22 THE WITNESS: I would say I probably would have

23 been aware of 5 to 10 ultrasonic nebulizers, but not 20.

24 No.

25 ///

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