

Gary N. Cherr, Ph.D.  
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1 THE DEPONENT: Thanks.

2 THE VIDEOGRAPHER: Time is 1:56 p.m.  
3 Pacific time. We are off the record.

4 (Recess taken.)

5 THE VIDEOGRAPHER: The time is 2:11 p.m.  
6 Pacific time. We are on record.

7 Q. (By Ms. Wang) Dr. Cherr, in the last  
8 break did you speak with counsel?

9 A. I did not.

10 Q. Okay. In order for modified PH20  
11 polypeptides to be useful as contraceptive vaccines  
12 in female mammals, they have to generate a  
13 polyclonal immune response at the right place at  
14 the right time in sufficient quantities, correct?

15 MR. POWERS: Objection. Form.

16 THE DEPONENT: I would agree with that.

17 Q. (By Ms. Wang) Your opinion on  
18 paragraph 43 of your declaration is that a POSA  
19 would have expected the modified PH20 polypeptides  
20 with optimized administration to be useful as  
21 contraceptive vaccines in female mammals.

22 That's your opinion, right?

23 A. Yes.

24 Q. What did you mean by "optimized  
25 administration"?

1           A.    Well, meaning mucosal and, again, talked  
2    about it in -- in here, but primarily an intranasal  
3    route since that's been shown to be most effective  
4    for other types of antigens.

5           Q.    Would the POSA have expected the modified  
6    PH20 polypeptides to be useful as contraceptive  
7    vaccines in female mammals without optimized  
8    administration?

9           MR. POWERS:  Objection.  Form.

10          THE DEPONENT:  I think in looking through  
11   the papers I cite, they would have an understanding  
12   that there's a need to elicit a response in the  
13   reproductive tract which, again, would be a mucosal  
14   response.

15          Q.    (By Ms. Wang)  So the modified PH20  
16   polypeptides, without optimized administration,  
17   would not be use useful as contraception?

18          MR. POWERS:  Objection.  Form.

19          THE DEPONENT:  With -- without -- without  
20   mucosal -- without triggering a mucosal response,  
21   yes, that would be true.  Wouldn't -- probably  
22   wouldn't be useful.

23          Q.    (By Ms. Wang)  Does your concept of  
24   optimized administration require adjuvants?

25          A.    Yes, that's how we are defining it here

1 with -- adjuvants that have been used successfully  
2 in mucosal and eliciting mucosal responses.

3 Q. So optimized administration requirements  
4 intranasal?

5 A. That's what I'm referring to here, to  
6 stimulate a mucosal response.

7 Q. And it requires adjuvants for mucosal  
8 response?

9 MR. POWERS: Object to form.

10 THE DEPONENT: (Nods head.)

11 Q. (By Ms. Wang) Right?

12 A. Yes.

13 Q. And you also state that the POSA would  
14 use an agent that removes beta-defensin, DEFB126.

15 Is that part of your optimized  
16 administration?

17 A. And that -- and that is an optional step  
18 to remove beta-defensin 126, but it's not  
19 mandatory.

20 Q. But mandatory for optimized  
21 administration, in your mind, is intranasal plus  
22 adjuvant?

23 A. Yes, I think that's the step -- the main  
24 step.

25 Q. Is the optimized administration of

1 modified PH20 polypeptides the same for all mammals  
2 that are covered, in your opinion?

3 A. So again, "optimized" as defined, or what  
4 was referred to here, is dealing with intranasal  
5 administration. And yes, that -- that -- because  
6 that's known that that would stipulate a mucosal  
7 response in -- in most mammals that have been  
8 studied.

9 Q. So in your opinion for modified PH20  
10 polypeptides to be useful as contraceptive  
11 vaccines, they would have to be delivered  
12 intranasally to female mammals?

13 MR. POWERS: Object to form.

14 THE DEPONENT: Sorry, one more time. I  
15 just want to make sure I heard the right word,  
16 please.

17 Q. (By Ms. Wang) For modified PH20  
18 polypeptides to be useful as contraception  
19 vaccines, they would have to be delivered  
20 intranasally to female mammals?

21 MR. POWERS: Same objection.

22 THE DEPONENT: They would have to be  
23 administered such that an adequate immune response  
24 occurred. An intranasal would be the primary way.  
25 But as we talked about before, there could be a

1 vaginal delivery as well.

2 Q. (By Ms. Wang) But in your opinion for  
3 modified PH20 polypeptides to be useful as  
4 contraception, they would have to be delivered  
5 mucosally?

6 A. Yes.

7 Q. Is your optimized administration the same  
8 for all modified PH20 polypeptides?

9 A. Yes.

10 Q. And that would include modified PH20  
11 polypeptides that are unfolded?

12 A. Yes.

13 Q. With regard to an adjuvant for intranasal  
14 administration, would any adjuvant work?

15 A. Well --

16 MR. POWERS: Objection. Form.  
17 Go ahead.

18 THE DEPONENT: When you say "any  
19 adjuvant," you mean literally any -- anything or  
20 known intranasal -- or known adjuvants that have  
21 been used intranasally?

22 Q. (By Ms. Wang) I'm trying to understand  
23 your opinion that adjuvants -- that the POSA would  
24 know to include adjuvants.

25 THE DEPONENT: So typically cholera

1 toxin B the, nontoxic form -- portion of cholera  
2 toxin is commonly used intranasally, and it has  
3 been very successful.

4 Q. (By Ms. Wang) Is that the only one?

5 A. Well, there's -- there's others.

6 There's -- from E. coli. There's  
7 flagellin/MAGELLAN, which is a toll receptor  
8 protein. So there's several others that have been  
9 used, but cholera toxin, at least for antiviral  
10 usage or stimulation for antiviral antigens,  
11 cholera toxin B has been very successful.

12 Q. Are you aware of any evidence of cholera  
13 toxin B as a successful adjuvant with the delivery  
14 of a -- of a self-antigen?

15 MR. POWERS: Object to form.

16 THE DEPONENT: I am not aware of --  
17 you know, I haven't look into that, right.

18 Q. (By Ms. Wang) Are you aware of any  
19 intranasal contraceptive vaccines that existed  
20 before 2012?

21 A. Are you referring -- when you say  
22 "contraceptive vaccines," you're referring to  
23 eliciting an antibody response?

24 Q. Yes.

25 A. No, I am not.

1 Q. Are you aware of any intranasal  
2 immunocontraceptive vaccines today?

3 A. Today? I'm sorry, today? Or --

4 Q. Yeah.

5 A. You meant recently or --

6 Q. After 2012 --

7 A. Oh, okay.

8 Q. -- are you aware of any intranasal  
9 immunocontraceptive vaccines?

10 A. No, I am not.

11 Q. Are you aware of any mucosal  
12 immunocontraceptive vaccines before 2012?

13 MR. POWERS: Object to form.

14 THE DEPONENT: No, I am not.

15 Q. (By Ms. Wang) How about after 2012?

16 MR. POWERS: Same objection.

17 THE DEPONENT: I am not aware of one.

18 Q. (By Ms. Wang) Are you aware of any  
19 intranasal vaccines using an enzyme antigen before  
20 2012?

21 A. I'm not.

22 Q. How about after 2012?

23 A. No, I am not aware of.

24 Q. Are you aware of any evidence published  
25 before 2012 of the successful mucosal delivery of

1 PH20 to humans?

2 MR. POWERS: Objection. Form.

3 THE DEPONENT: I don't believe so. I  
4 don't know of any.

5 Q. (By Ms. Wang) Any evidence of successful  
6 mucosal delivery of modified PH20 polypeptides to  
7 humans?

8 A. No, I am not.

9 Q. Are you aware of any evidence of mucosal  
10 delivery of modified PH20 peptides to nonhumans?

11 A. No, I am not.

12 Q. Are you aware of any evidence published  
13 before 2012 that PH20 is expressed in the female  
14 reproductive tract of any mammal?

15 A. The only -- the only one I know of is the  
16 BALB/c mice, genetically -- highly modified genetic  
17 strain of mice that was used in the Hardy study.

18 Q. So besides the mice in the Hardy study,  
19 you're not aware of any other evidence published  
20 before 2012 of PH20 expression in female  
21 reproductive tracts?

22 A. No, I'm not.

23 Q. You stated earlier that the POSA would  
24 have optionally delivered an anti beta-defensin,  
25 DFB126 agent, to the vaginal cavity of vaccinated

1 women just before intercourse to make modified PH20  
2 polypeptides an effective contraceptive; is that  
3 correct?

4 MR. POWERS: Object to form.

5 THE DEPONENT: Yeah.

6 Q. (By Ms. Wang) You identified in your  
7 declaration, at paragraph 39, sialidase.

8 A. Yes, that's right.

9 Q. You didn't cite any study where sialidase  
10 was administered vaginally to female primates  
11 before 2012, did you?

12 A. That's correct. It has been found in the  
13 vagina in humans, but not administered.

14 Q. And so there's also no study  
15 administering sialidase to the human vagina before  
16 2012?

17 A. Not that I'm wear of, no.

18 Q. And sialidase treatment of sperm prevents  
19 sperm from penetrating cervical mucosal because of  
20 removal of the negative charge on the sperm  
21 surface, right?

22 A. Yes, that's correct.

23 Q. The sialidase prevention of sperm from  
24 penetrating cervical mucus occurs whether or not  
25 PH20 is bound by antibodies, right?

1 MR. POWERS: Object to form.

2 THE DEPONENT: No. It's -- so it's a way  
3 of further enhancing any sort of antibody effect  
4 down in the lower tract. I have a sialidase there.

5 Q. (By Ms. Wang) But just to confirm,  
6 sialidase alone prevent sperm from penetrating  
7 cervical mucus?

8 A. That is correct.

9 Q. In your opinion, would the POSA only  
10 select sialidase to administered to humans?

11 MR. POWERS: Objection. Form.

12 THE DEPONENT: Probably not, because the  
13 sialidase -- sialidase treatment is an optional or  
14 enhancing approach. If there were sperm that got  
15 through to the upper tract, you would still ideally  
16 really want an antibody response in that upper  
17 tract. And then whatever sperm did get up in the  
18 upper tract, if they are lacking their sialic acid,  
19 would be highly susceptible to any sort of  
20 antibodies that would be present there. So I  
21 viewed this as both working together.

22 Q. (By Ms. Wang) So if a POSA wanted to use  
23 an anti-defensin agent, would they only select  
24 sialidase?

25 MR. POWERS: Objection. Form.

1 THE DEPONENT: If you could define  
2 "anti-defensin agent" or what you mean by that.

3 Q. (By Ms. Wang) Well, if a POSA wanted to  
4 deliver an anti-beta-defensin, DEFB126 agent, would  
5 they only select sialidase?

6 A. Sorry. I just push back a little bit on  
7 the term "anti-beta-defensin" because it makes it  
8 sound like you're talking about an antibody?

9 Q. No.

10 A. No?

11 Q. I'm talking about an agent that  
12 removes --

13 A. That removes or affects its function,  
14 yeah.

15 Q. Right.

16 So if a POSA wanted to use an agent that  
17 removes the anti-defensin -- sorry, the  
18 beta-defensin, would only select sialidase?

19 A. There's only approaches that could be  
20 taken in terms of, you know, bicarbonate levels and  
21 different incubation procedures that kind of mimic  
22 what normally occurs in the upper tract. But the  
23 sialidase is by far the more straightforward and  
24 easiest has a single enzyme treatment versus more  
25 complicated culture medium.

1 Q. You identified caffeine as an agent known  
2 to expose sperm surface protein?

3 A. Right. And that's not -- that's kind of  
4 an in vitro mimic of the physiology of what  
5 happens. It's not referring to drinking a lot of  
6 coffee. Sorry.

7 Q. The POSA would not be putting caffeine up  
8 the vagina?

9 A. Right.

10 Q. Okay. Same for Dibutyryl cAMP?

11 A. Cyclic. Yeah, same thing. So these are  
12 all kind of the normal metabolic physiological  
13 processes that are occurring up in the upper tract,  
14 and those are all in vitro chemicals that elicit a  
15 similar response.

16 Q. But the POSA would not be using them  
17 in vivo?

18 MR. POWERS: Object to form.

19 THE DEPONENT: I mean, it's a known  
20 possible treatment, but it would be very difficult.  
21 A sialidase would be much more straightforward.

22 Q. (By Ms. Wang) Do you think the delivery  
23 of an agent to remove the beta-defensin from sperm  
24 surface PH20 prior to intercourse would be  
25 practical in a wild animal population?

1 A. In -- in a what population?

2 Q. In a wild animal population.

3 A. Oh, wild.

4 Are you -- I guess, are you -- I'm trying  
5 to understand the context. Are you talking about  
6 wild animal, feral animal control?

7 Q. Well, your opinion is that the modified  
8 PH20 polypeptides would be useful as contraception  
9 in nonhuman mammals, right?

10 A. Right.

11 Q. And that would include primates?

12 A. Yes.

13 Q. Right?

14 A. Yes.

15 Q. And so do you think that delivery of an  
16 agent to remove beta-defensin would be practical to  
17 achieve contraception in wild primates?

18 MR. POWERS: Objection -- Objection.  
19 Form.

20 THE DEPONENT: Yeah, I think the  
21 operative term is "practical" and "wild." Because  
22 if you're talking about laboratory animals that are  
23 used for, you know, developing a certain drugs and  
24 procedures, then yes. But when we're talking about  
25 a disc or a ring, a vaginal ring, or even a gel,

1 you know, that probably wouldn't be practical in a  
2 wild population for, I think, hopefully obvious  
3 reasons, but...

4 Q. (By Ms. Wang) I'm trying to understand  
5 though, is -- so is your opinion that modified PH20  
6 polypeptides would be a useful contraception in  
7 nonhuman mammals? Does that include wild mammals?

8 A. Well -- so, again, I think we are kind  
9 of -- I just want to make sure we are kind of on  
10 the same path here. You are talking about -- yes,  
11 and I mentioned this appropriate, if there's an  
12 appropriate mucosal response and it's administered  
13 in an appropriate way. So I guess the optional  
14 sialidase treatment certainly could be done in  
15 population -- laboratory population of wild  
16 animal -- or sorry, not wild animals -- laboratory  
17 populations of nonhuman animals. But -- and that  
18 would be irregardless of which polypeptides were  
19 used.

20 Q. But the optional sialidase treatment  
21 would not be used for wild mammals?

22 A. Well, I guess my opinion is theoretically  
23 it could be, but it's not very practical.

24 Q. So your opinion is that modified PH20  
25 polypeptides, in order for them to be effective as

1     contraceptive vaccines, the POSA would expect to  
2     have to administer them mucosally with a potent  
3     mucosal adjuvant?

4                     MR. POWERS:  Objection.  Form.

5                     THE DEPONENT:  Well, it's not  
6     administering them a mucosal -- administering them  
7     so that there was a sufficient mucosal response,  
8     yes.

9             Q.     (By Ms. Wang)  And that was not done in  
10    the guinea pig studies reported by Primakov  
11    (phonetic), correct?

12                    MR. POWERS:  Objection.  Form.

13                    THE DEPONENT:  No that was not.

14             Q.     (By Ms. Wang)  The guinea pigs did not  
15    receive mucosally administered or intranasally  
16    administered PH20?

17             A.     That's correct.

18             Q.     Suppose the POSA wanted to use modified  
19    PH20 polypeptides to make a rat contraceptive  
20    vaccine.

21                    Would they administer the PH20  
22    polypeptide intranasally?

23             A.     For controlling rats, you say, or for  
24    rendering rats infertile?

25             Q.     For controlling rats.

1           A.    So yes, in rats they would want a --  
2 intranasal or mucosal response to optimize that.

3           Q.    So the POSA would administer modified  
4 polypeptides intranasally to rats?

5                   For a rat contraceptive vaccine, what  
6 mucosal adjuvant would the POSA include?

7           A.    I think in literature, again, for other  
8 types of antigens, people have used the cholera  
9 toxin B quite successfully for antiviral antigens.

10          Q.    And how often would they -- sorry, let me  
11 rephrase.

12                   The POSA would also expect to need to  
13 boost the rat population with vaccine, right?

14                   MR. POWERS: Object to form.

15                   THE DEPONENT: Potentially. There are  
16 some studies that have found a single nasal  
17 administration triggers a very long-lasting  
18 antibody response. But certainly an option would  
19 be to boost.

20          Q.    (By Ms. Wang) So boosting is not a part  
21 of your optimized administration?

22          A.    No. I -- it would be part of it to -- to  
23 maintain -- again, there's -- there's levels of the  
24 immune response, and then there's time frame  
25 maintaining it, and boosting comes in potentially

1 to both of those.

2 Q. And how would a POSA developing a rat  
3 contraceptive vaccine boost the rat population with  
4 vaccine?

5 MR. POWERS: Objection. Form.

6 THE DEPONENT: It's -- it's hard for me  
7 to opine on that because I'm not familiar with  
8 how -- you know, using it as a feral population  
9 control, how these things would be done. So I  
10 can -- I don't want to speculate on exactly how  
11 that would be done.

12 Q. (By Ms. Wang) Earlier we talked about  
13 you have an opinion regarding monoclonal  
14 antibodies.

15 A. Uh-huh.

16 Q. And you state in your declaration --  
17 let's go to paragraph 14 -- that you were asked to  
18 consider -- I will wait.

19 A. Yes.

20 Q. You were asked to consider whether a POSA  
21 would have expected anti-PH20 monoclonal antibodies  
22 against any of the modified PH20 polypeptides when  
23 administered into the vaginal cavity of human  
24 females to cause contraception.

25 Do you see that?

1 A. Yes.

2 Q. Where did this question come from?

3 A. Well, I was asked to comment on that from  
4 counsel.

5 Q. So counsel formulated the question for  
6 you?

7 A. Not in those exact words, but the --  
8 conceptually.

9 Q. Were you asked to consider administration  
10 of monoclonal antibodies to any place other than  
11 the vaginal cavity of human females?

12 A. No.

13 Q. Your opinion on monoclonal antibodies  
14 we've -- let me start over.

15 As we talk about before, monoclonal  
16 antibodies only have one specificity, right?

17 A. Yes, correct.

18 Q. And so they would have to be made and  
19 screened in order to find the right antibody that  
20 would cause contraception?

21 MR. POWERS: Object to form.

22 THE DEPONENT: I believe where this is  
23 discussed further back -- this is just at the  
24 beginning. Where this is discussed further back, I  
25 think I talked about a mixture of different --

1 different monoclonal antibodies that would bind to  
2 different epitopes would be used in the vaginal  
3 cavity or delivered in the -- a gel or a vaginal  
4 ring or vaginal disc.

5 Q. (By Ms. Wang) Is it your opinion that  
6 you would need more than one monoclonal antibody  
7 with more than one specificity in order to have  
8 effective contraception?

9 A. I think would be advantageous to have a  
10 number of -- that bind to different epitopes.

11 Q. Can you have effective contraception with  
12 only one monoclonal antibody that only binds one  
13 epitope?

14 A. Potentially, yes.

15 Q. That one monoclonal antibody would have  
16 to be made and screened to determine if it could  
17 potentially work, right?

18 MR. POWERS: Object to form.

19 THE DEPONENT: Well, I think the  
20 monoclonal antibodies one would develop for this  
21 kind of purpose, the POSA would be screening  
22 numerous antibodies and then could decide how many  
23 they wanted to employ for this purpose.

24 Q. (By Ms. Wang) The POSA would be making  
25 numerous antibodies and screening them?

1 MR. POWERS: Same objection.

2 Q. (By Ms. Wang) Right?

3 A. Yes.

4 Q. These monoclonal antibodies are not being  
5 administered as immunocontraceptive vaccines,  
6 right?

7 A. Correct, they are being added to the  
8 vaginal cavity.

9 Q. And modified PH20 polypeptides are not  
10 monoclonal antibodies, right?

11 A. Yes, you're right on that.

12 Q. Did you, in forming your opinions,  
13 investigate any differences in the location of  
14 expression of PH20 on the sperm of different  
15 species?

16 MR. POWERS: Objection. Form.

17 THE DEPONENT: Sorry, could you ask that  
18 again.

19 Q. (By Ms. Wang) In forming your opinions,  
20 did you investigate any differences in the location  
21 of expression of PH20 on the sperm of different  
22 species?

23 MR. POWERS: Same objection.

24 THE DEPONENT: Yes.

25 I was aware of differences between

1 rodents and primates, in particular.

2 Q. (By Ms. Wang) Are you aware that the  
3 location of expression of PH20 on guinea pig sperm  
4 is different from the sperm of other mammals?

5 MR. POWERS: Objection. Form.

6 THE DEPONENT: Yes, I am aware.

7 Q. (By Ms. Wang) You did not investigate  
8 any differences in the immune system of guinea pigs  
9 versus other mammals, did you?

10 MR. POWERS: Objection. Form.

11 THE DEPONENT: I did not investigate it.

12 There's very little known, but like -- as  
13 I mentioned earlier, it is known that guinea pigs  
14 have leakage or breakthrough from the circulating  
15 plasma if there's antibodies circulating into the  
16 reproductive tract lumens of both males and  
17 females.

18 Q. (By Ms. Wang) Right, and I'm just asking  
19 about the immune system.

20 A. Yeah.

21 Q. You didn't investigate any differences in  
22 the immune system between --

23 A. No.

24 I don't know, and I don't think that's  
25 known.

1 Q. Okay.

2 MS. WANG: Okay to take a break?

3 MR. POWERS: Sure.

4 THE DEPONENT: Sure.

5 THE VIDEOGRAPHER: The time is 2:44 p.m.

6 Pacific time. We are off the record.

7 (Recess taken.)

8 THE VIDEOGRAPHER: The time is 3:06 p.m.

9 Pacific time. We are on the record.

10 Q. (By Ms. Wang) Dr. Cherr, did you speak  
11 with counsel during the last break?

12 A. I did not.

13 Q. The answers that you gave today, would  
14 any of them have been different for any of the four  
15 patents in the four proceedings?

16 A. For any of the -- yeah, I --

17 Q. Let me rephrase.

18 A. Yeah.

19 Q. The answers that you gave today would not  
20 have been different for any of the four patents in  
21 the four different proceedings, right?

22 A. Yes, that is correct.

23 Q. You provided your opinions from the  
24 perspective of a POSA in December 2012, right?

25 MR. POWERS: Object to form.

1 THE DEPONENT: Yes, that's true.

2 Q. (By Ms. Wang) Would your opinions have  
3 been different from the perspective of a POA in  
4 December 2011?

5 MR. POWERS: Object to form.

6 THE DEPONENT: Probably need to think  
7 about that, but I -- my response would be, no,  
8 wouldn't be any different.

9 Q. (By Ms. Wang) Okay.

10 MS. WANG: All right. Thank you.

11 Those are all the questions I have for  
12 you today, Dr. Cherr.

13 Before we go off the record, I would like  
14 to ask for counsel for production of the near-final  
15 Moon declaration that Dr. Cherr testified he  
16 reviewed before signing his declaration.

17 MR. POWERS: We'll consider it, Counsel.

18 MS. WANG: Okay.

19 THE VIDEOGRAPHER: And before I read us  
20 off, I just need to grab --

21 MR. POWERS: We need time to consider  
22 whether or not there's going to be any redirect.

23 THE VIDEOGRAPHER: Okay.

24 MR. POWERS: So let's take a break.

25 MS. WANG: Okay.

1 THE VIDEOGRAPHER: Take a break?

2 Copy that.

3 The time is 3:08 p.m. Pacific time. We  
4 are off the record.

5 (Recess taken.)

6 THE VIDEOGRAPHER: The time is 3:13 p.m.  
7 Pacific time. We are on the record.

8 MR. POWERS: Thank you very for your time  
9 to, Dr. Cherr. We have no questions for you.

10 The witness will read and sign.

11 MS. WANG: Okay.

12 MR. POWERS: Thank you, Counsel.

13 MS. WANG: And, sorry, one quick thing  
14 before we go off the record.

15 Can we have Dr. Cherr's versions of his  
16 declaration be part of the record.

17 MR. POWERS: Sure.

18 They're unmarked versions of his  
19 declaration.

20 MS. WANG: That's fine, thank you.

21 THE VIDEOGRAPHER: Okay. If there is  
22 nothing else, I will just grab orders real quickly.

23 Ms. Wang, you get the video, standard.  
24 Did you need it synced to the transcript?

25 MS. WANG: Yes, I believe so.

1 THE VIDEOGRAPHER: All right. And then,  
2 Mr. Powers, did you need a copy of the video and/or  
3 transcript at this time?

4 MR. POWERS: Yes, we will.

5 THE VIDEOGRAPHER: Okay. Did you want  
6 them synced, as well?

7 MR. POWERS: Let me check about that.

8 THE VIDEOGRAPHER: Okay. I'll put you  
9 down for a follow-up.

10 And then will it just be the one order  
11 for both sides, or --

12 MR. POWERS: Yes.

13 THE VIDEOGRAPHER: Okay. Perfect.

14 In which case, this ends Volume 1 of the  
15 video deposition of Gary N. Cherr, Ph.D., in the  
16 matter of Merck Sharp & Dohme LLC v. Halozyme  
17 Incorporated.

18 The time is 3:14 p.m. Pacific  
19 time. We are off the record.

20 (TIME NOTED: 3:14 P.M.)

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1 I, GARY N. CHERR, Ph.D., do hereby declare  
2 under penalty of perjury that I have read the  
3 foregoing transcript; that I have made any  
4 corrections as appear notes; that my testimony as  
5 contained herein, as corrected, is true and  
6 correct.

7 Executed this \_\_\_\_ day of \_\_\_\_\_,  
8 2025, at \_\_\_\_\_, \_\_\_\_\_.

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GARY N. CHERR, Ph.D.

1 I, Rebecca L. Romano, a Registered  
2 Professional Reporter, Certified Shorthand  
3 Reporter, Certified Court Reporter, do hereby  
4 certify:

5 That the foregoing proceedings were taken  
6 before me at the time and place herein set forth;  
7 that any deponents in the foregoing proceedings,  
8 prior to testifying, were administered an oath;  
9 that a record of the proceedings was made  
10 stenographically by me and which was thereafter  
11 transcribed under my direction; that the foregoing  
12 transcript is a true record of the testimony given.

13 Further, that if the foregoing pertains to the  
14 original transcript of a deposition in a Federal  
15 Case, before completion of the proceedings, review  
16 of the transcript [ ] was [ ] was not requested.

17 I further certify I am neither financially  
18 interested in the action nor a relative or employee  
19 of any attorney or any party to this action.

20 IN WITNESS WHEREOF, I have this date  
21 subscribed my name.

22

23 Dated: November 17, 2025

24



25

Rebecca L. Romano, RPR, CCR  
CSR. No 12546

|    |                         |   |              |
|----|-------------------------|---|--------------|
| 1  | DEPOSITION ERRATA SHEET |   |              |
| 2  | Case Name:              | Merck Sharp & Dohme LLC vs. Halozyme Inc. |              |
| 3  | Name of Deponent:       | Gary N. Cherr, Ph.D.                      |              |
|    | Date of Deposition:     | November 12, 2025                         |              |
| 4  | Job No.:                | 7005263-001                               |              |
|    | Reason Codes:           | 1. To clarify the record.                 |              |
| 5  |                         | 2. To conform to the facts.               |              |
|    |                         | 3. To correct transcript errors.          |              |
| 6  | Page _____              | Line _____                                | Reason _____ |
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| 21 | From _____   | to _____   |              |
| 22 | _____ Subject to the above changes, I certify that |            |              |
| 23 | the transcript is true and correct                 |            |              |
| 24 | _____ No changes have been made. I certify that    |            |              |
| 25 | the transcript is true and correct.                |            |              |
|    | _____  |            |              |
|    | GARY N. CHERR, Ph.D.                               |            |              |

|                   |                  |              |              |
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