

Deposition of
Carl A. Batt, Ph.D.
October 09, 2025

Bio-Rad Laboratories, Inc.
vs.
California Institute of Technology



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IPR2024-01451

California Institute of Technology - Ex. 2025

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD
-----X
3 BIO-RAD LABORATORIES, INC.,

4 Petitioner,

Case No.:
IPR2024-01451
U.S. Patent No.
11,827,921 B2

5
6 -v-

7
8 CALIFORNIA INSTITUTE OF TECHNOLOGY,

9 Patent Owner.
-----X

10
11 DEPOSITION OF

12 CARL A. BATT, Ph.D.

13 Thursday, October 9th, 2025

14 New York, New York
15
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19
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21 Reported By:

22 Marina Dubson

23 Job No: 10174233
24
25

DATE: 10/9/2025

TIME: 10:00 a.m.

DEPOSITION of CARL A. BATT, Ph.D., an
Expert Witness on behalf of Petitioner
herein, taken by the Respondent/Patent
Owner, pursuant to Federal Rules of Civil
Procedure, and Notice, held at Jones Day,
at the above-mentioned date and time,
before MARINA DUBSON, a Notary Public of
the State of New York.

1 APPEARANCES :

2

JONES DAY

3 Attorney for Petitioner

BIO-RAD LABORATORIES, INC.

4 555 California Street 26th Floor

San Francisco, California 94104

5 (415) 875.5791

BY: DEREK C. WALTER PH.D., ESQ.

6 Dwalter@jonesday.com

7

8 SHEPPARD MULLIN RICHTER & HAMPTON, LLP

Attorney for Respondent/Patent Owner

9 12275 El Camino Real

San Diego California 92130

10 (858) 720.8964

BY: JESSE A. SALEN, ESQ.

11 Jsalen@sheppardmullin.com

12

JAIME CHOI, ESQ. (via zoom)

13 Jchoi@sheppardmullin.com

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1 IT IS HEREBY STIPULATED AND AGREED,
2 by and between the attorneys for the
3 respective parties, as follows:

4
5 THAT all objections, except as to the form
6 of the questions, shall be reserved to the
7 time of the trial;

8
9 THAT the within examination may be signed
10 and sworn to before any Notary Public with
11 the same force and effect as if signed and
12 sworn to before the Court;

13
14 THAT filing of the original transcript of
15 the examination is waived.

1 C. A. Batt, Ph.D.

2 THE REPORTER: Are you ordering
3 a copy of this transcript?

4 MR. SALEN: Yes, copy, 1
5 realtime feed, rough draft and 3-day
6 expedite final.

7 MR. WALTER: O+1, 1 realtime
8 feed, rough draft, regular turnaround
9 final.

10

11 C A R L A. B A T T,
12 after having first been duly sworn by
13 a Notary Public of the State of New
14 York, was examined and testified as
15 follows:

16

17 EXAMINATION

18 BY MR. SALEN:

19 Q. Good morning, Dr. Batt. My
20 name is Jesse Salen. I am an attorney with
21 Sheppard, Mullin, Richter & Hampton. We
22 represent the Patent Owner in the
23 proceeding.

24 MR. SALEN: Counsel, do you
25 want to also?

1 C. A. Batt, Ph.D.

2 MR. WALTER: Sure. Derrick
3 Walter from Jones Day for Bio-Rad.

4 MR. SALEN: And I believe on
5 the phone, we have a party listening
6 in. Just to identify themselves, if
7 it's okay.

8 MS. CHOI: Jaime Choi from
9 Sheppard Mullin representing
10 petitioner.

11 BY MR. SALEN:

12 Q. Dr. Batt, can you state your
13 name for the record?

14 A. My name is Carl, C-A-R-L. Last
15 name is Batt, B-A-T-T.

16 Q. You were previously deposed in
17 this case.

18 Do you recall that?

19 A. I do.

20 Q. Okay. And have you reviewed
21 your deposition transcripts since you were
22 deposed?

23 A. I have.

24 Q. Do you have any changes since
25 you reviewed it that you wanted to make or

1 C. A. Batt, Ph.D.
2 **corrections to the transcript?**

3 A. Maybe a point of clarification.

4 **Q. Go ahead.**

5 A. Sure. I mean, I think it's
6 important to clarify the differences
7 between -- and it wasn't as clear as it
8 could have been -- the differences between
9 the number of copies of a target versus a
10 number of targets. I think it's an
11 important issue that wasn't as well
12 articulated as it could have been.

13 **Q. Is that it?**

14 A. Yeah, for right now.

15 **Q. Okay. And did you do anything**
16 **to prepare for your deposition today?**

17 A. Yes. I reviewed the - a
18 variety of different documents. I
19 consulted with Mr. Walter.

20 **Q. Which documents did you review?**

21 A. I reviewed my deposition. I
22 reviewed my previous declarations. And,
23 you know, just in general, the patents
24 involved and the prior art.

25 **Q. Which prior art did you review?**

1 C. A. Batt, Ph.D.

2 A. Mainly Larson.

3 Q. Did you review any other
4 documents?

5 A. No.

6 Q. And when did you meet with
7 counsel?

8 A. We met this morning.

9 Q. For how long?

10 A. About an hour and a half.

11 Q. Did you meet with anyone else
12 or talk to anyone else in preparation for
13 your deposition today?

14 A. Not at all.

15 Q. Let's look at an exhibit.

16 MR. SALEN: This is
17 Exhibit 1043. It's been previously
18 marked in this proceeding.

19 (Previously marked exhibit.)

20 BY MR. SALEN:

21 Q. Do you recognize the document
22 in front of you?

23 A. I do.

24 Q. And is this the -- your
25 declaration or supplemental -- I guess

1 C. A. Batt, Ph.D.

2 Declaration of Carl Batt in Support to
3 Petitioner's Reply to Patent Owner's
4 Response?

5 A. That's the title of this
6 document.

7 Q. If we turn to the last page.
8 It's actually on the back, there's -- it
9 looks like a signature there. Is that your
10 signature?

11 A. That is.

12 Q. Did you review the declaration
13 before you signed it on September 11th?

14 A. I did.

15 Q. And is this a -- is everything
16 in here true and correct?

17 A. Well, if what you're presenting
18 to me is what I signed, sure. We can
19 stipulate to that.

20 Q. And let's take a look at
21 paragraph 5. Paragraph 5 is on page 4 of
22 Exhibit 1043.

23 Do you see that?

24 A. I see these pages. This
25 doesn't have a number.

1 C. A. Batt, Ph.D.

2 Q. I am looking at the bottom of
3 the -- the bottom right corner and there's
4 a number there.

5 A. I got it now. Thank you.

6 Q. So, are you looking at
7 paragraph 5?

8 A. I am now.

9 Q. Is paragraph 5, is this --
10 you're talking in paragraph 5 about
11 Dr. Struhl's testimony about what a person
12 of ordinary skill in the art would have
13 known in 2002, correct?

14 A. So, paragraph 5 is the
15 testimony or the deposition of Dr. Struhl,
16 right.

17 Q. Right. You were talking about
18 Dr. Struhl's testimony about what a person
19 of ordinary skill in the art would have
20 known as of 2002, correct?

21 A. Paragraph 5 is Struhl's answer
22 to a question.

23 Q. Yes. Did you understand
24 Dr. Struhl's testimony here in this
25 declaration related to the '921 patent?

1 C. A. Batt, Ph.D.

2 A. Yes.

3 Q. Did you understand that
4 Dr. Struhl's testimony about what a person
5 of ordinary skill in the art would have
6 known relates to Bio-Rad's IPR proceedings
7 titled IPR 2024-01451?

8 A. So, what I am looking at is a
9 question that was asked of Dr. Struhl and
10 his response.

11 Q. I'm just asking if you
12 understood that his testimony here about
13 what a person of ordinary skill in the art
14 would have known in 2002 relates to the
15 '921 patent?

16 A. Yes.

17 Q. And it relates to the IPR
18 proceedings?

19 A. Yes.

20 Q. Did you understand Dr. Struhl's
21 opinions in his declaration relate to
22 Bio-Rad's IPR petition in this proceeding?

23 A. Yes.

24 Q. 2002 predates the priority date
25 of the '921 patent, correct?

1 C. A. Batt, Ph.D.

2 A. If I saw the '921 patent to
3 confirm it, we can confirm that.

4 [Crosstalk.]

5 THE WITNESS: If you give me
6 the '921 patent to sort of reconfirm
7 it, I'll be happy to do so.

8 Q. We'll get there.

9 So, did you remember what the
10 priority date of the '921 patent is?

11 A. I don't remember that.

12 Q. You don't recall if it was
13 before or after 2002?

14 A. Again, if you give me the '921
15 patent so I can reconfirm it, it would be a
16 lot easier.

17 Q. So, we'll get there. I just
18 want to talk about your declaration right
19 now, if that's okay.

20 So, you reference -- in
21 paragraph 5, you say: Dr. Struhl further
22 admitted that he knew of these techniques
23 as early as 2002.

24 Do you see that?

25 A. I do.

1 C. A. Batt, Ph.D.

2 Q. The techniques you're referring
3 to in paragraph 5, are those techniques
4 recited by the '921 patent claims?

5 A. Well, we're talking about a
6 person of ordinary skill in the art. That
7 is what this is referring to.

8 Q. Do you know if those techniques
9 are recited by the '921 patent claims?

10 A. Yes.

11 Q. You do?

12 A. I mean, the point is that what
13 is stated here is Struhl's contention that
14 he was a person of ordinary skill in the
15 art, and that's the criteria by which I
16 viewed the '921 patent.

17 Q. You referenced techniques here
18 as plural with an S at the end.

19 Do you see that?

20 A. Yes.

21 Q. It's more than one technique?

22 A. As far as a person of ordinary
23 skill in the art, yes, they would have more
24 than one technique.

25 Q. So, when you use the plural of

1 C. A. Batt, Ph.D.

2 techniques, are you talking about one
3 technique?

4 A. No, the terminology in this
5 particular case, which is defining a person
6 of ordinary skill in the art. I don't
7 remember off the top of my head, but there
8 were a number of them.

9 Q. But you use the plural of the
10 word "techniques" here, correct?

11 A. Yes.

12 Q. Is that because there's
13 multiple techniques?

14 A. Yes.

15 Q. When you referred to techniques
16 that a person of ordinary skill in the art
17 would have known in 2002, is it your
18 opinion that a person of ordinary skill in
19 the art would have known how to perform
20 each of the claims recited in the '921
21 patent?

22 A. Yes.

23 Q. Does 2002 predate the priority
24 dates of the prior art references that
25 you've reviewed in this case such as Larson

1 C. A. Batt, Ph.D.

2 and Saxonov?

3 A. I believe so.

4 Q. Is it also your opinion that a
5 person of -- is it also your opinion that a
6 person of ordinary skill in the art in 2002
7 would have known the multiplexing
8 techniques disclosed by Larson?

9 A. Absolutely.

10 Q. Is it also your opinion a
11 person of ordinary skill in the art as of
12 2002 would have known the multiplexing
13 techniques disclosed by Saxonov?

14 A. Yes.

15 Q. Is it your opinion that a
16 person of ordinary skill in the art as of
17 2002 would have known the multiplexing
18 techniques recited in the claims of Larson?

19 A. Yes.

20 Q. Is it your opinion that a
21 person of ordinary skill in the art as of
22 2002 would have known the multiplexing
23 techniques recited in the claims of
24 Saxonov?

25 A. Yes.

1 C. A. Batt, Ph.D.

2 Q. Let's look at paragraph 6.

3 In paragraph 6, you talk about
4 multiplex PCR, correct? You use that term?

5 A. Yes. The term "multiplex PCR"
6 appears in the first sentence.

7 Q. What does multiplex PCR mean?

8 A. So, multiplex PCR is a term
9 used to define a technique where you're
10 able to look at more than one target in a
11 particular sample at the same time.

12 Q. Were there multiplex PCR
13 techniques that existed today -- that exist
14 today, sorry, that were not known as of
15 2005?

16 MR. WALTER: Objection. Vague.

17 THE WITNESS: Give me that one
18 more time.

19 Q. Are there multiplexing
20 techniques that exist today that weren't
21 known as 2005?

22 MR. WALTER: Same objection.

23 THE WITNESS: That context is a
24 little bit hard for me to pin down
25 and say -- certainly, I believe that

1 C. A. Batt, Ph.D.

2 between 2005 and 2025, there have
3 been other things discovered about
4 multiplex PCR.

5 Q. And assuming a person of
6 ordinary skill in the art as of 2005 would
7 have known about multiplex PCR generally,
8 does that necessarily mean they knew about
9 all of the multiplex PCR techniques that
10 are disclosed by Larson?

11 A. Are we talking about any random
12 person?

13 Q. Talking about a person of
14 ordinary skill in the art.

15 A. Your question again was, was
16 there anything they might not have known?

17 Q. In Larson about multiplex PCR
18 techniques.

19 A. No.

20 Q. I'm talking about a person of
21 ordinary skill in the art as of 2005 with
22 that question. So, just to repeat it, a
23 person of ordinary skill in the art as of
24 2005, are there any multiplex PCR
25 techniques they would have known in 2005

1 C. A. Batt, Ph.D.

2 that were not disclosed by Larson?

3 A. I'm confused by the question.

4 Are you asking --

5 Q. I'm going to withdraw that
6 question. It was confusing.

7 A. Larson is not comprehensive in
8 its description of multiplex PCR.

9 Q. Are there -- are there
10 multiplex PCR techniques that are disclosed
11 in Larson that a person of ordinary skill
12 in the art as of 2005 would not have known?

13 A. No.

14 Q. And are there multiplex PCR
15 techniques disclosed in Saxonov that a
16 person of ordinary skill in the art as of
17 2005 would not have known?

18 A. No.

19 MR. WALTER: Objection. Vague.

20 Q. Is that also true for a person
21 of ordinary skill in the art as of 2011?

22 MR. WALTER: Objection. Vague.

23 THE WITNESS: I can't parse
24 history that accurately.

25 Q. Why not?

1 C. A. Batt, Ph.D.

2 A. Because you're asking me a
3 random date and you're saying 15 years ago
4 what exactly people knew that they didn't
5 know in 2005. I don't have that kind of --

6 Q. Did you do anything to
7 determine the history of technological
8 improvements for multiplex PCR between 2002
9 and 2011 in preparing your declaration in
10 this case?

11 A. No, I did not.

12 Q. You didn't do a historical
13 analysis of that?

14 A. Across all of science, no, I
15 did not.

16 Q. How about just across multiplex
17 PCR related science?

18 A. No.

19 Q. And let's look at paragraph 12.
20 Paragraph 12 of your declaration appears on
21 page 7 of Exhibit 1043, correct?

22 A. That's correct.

23 Q. In paragraph 12, you say that
24 you have been informed that a Patent
25 Owner -- that Patent Owner has changed its

1 C. A. Batt, Ph.D.

2 interpretation of the phrase "single sample
3 volume."

4 Do you see that?

5 A. That's what it says.

6 Q. How were you informed of that?

7 A. By counsel.

8 Q. Do you have any other basis for
9 saying that other than what you learned
10 from counsel?

11 A. No, not at all.

12 Q. Is it true that you understood
13 that at least one interpretation that the
14 Patent Owner had at the time you drafted
15 your original declaration in this case was
16 that a single sample volume could be a
17 single droplet?

18 A. Yes.

19 Q. That's not a new interpretation
20 that patent owner's advance, correct?

21 A. Well, give me a second to
22 review this. What I'm reading here is that
23 the new construction is that single sample
24 volume is limited to -- it says here that
25 the Patent Owner contends single sample

1 C. A. Batt, Ph.D.

2 volume is limited to a single partition
3 from an original sample solution, i.e, a
4 single droplet.

5 Q. Apart from the words that we
6 said that the single sample volume -- the
7 Patent Owner contends a single sample
8 volume is limited to a single partition
9 from an original sample solution, i.e., a
10 single droplet, it's true that that --
11 other than being limited to that
12 definition, that that's a construction --
13 that that's not a new construction as being
14 advanced by Patent Owner, correct?

15 A. Well, it is a new construction
16 by virtue of the changes that were made to
17 now have focus and say a single sample
18 volume is limited to a single partition.
19 So, that's new.

20 Q. Earlier, you just -- earlier,
21 you testified that you understood that the
22 Patent Owner -- that you were aware that
23 Patent Owner had advanced at least one, as
24 one option for what a single sample volume
25 means, that it could be single droplet as

1 C. A. Batt, Ph.D.

2 of the time you drafted your original
3 declaration, correct?

4 A. I'm a little bit unclear what
5 you're asking me. So, you're asking me --
6 so -- that -- this particular -- okay. Let
7 me rephrase that.

8 Q. If you're not clear, I can ask
9 it a different way.

10 A. I am trying to understand.
11 We're talking about this declaration,
12 right? You're saying that --

13 Q. I am talking about when you
14 drafted your original declaration in this
15 case, were you aware that the Patent Owner
16 had advanced at least --

17 A. Yeah. So, what I am looking at
18 here and what is informing my answer is
19 that, as of this declaration, I was aware
20 of it. I could go back to my old
21 declaration to determine whether or not
22 this new definition of -- this new claim
23 construction was done before or after.
24 Does that --

25 Q. Okay.

1 C. A. Batt, Ph.D.

2 A. Yeah. What I can say is that
3 that new claim construction was offered up
4 by the Patent Owner previous to this
5 declaration.

6 Q. Okay. Let's look at paragraph
7 16. That's on page 8 of your declaration.

8 Do you see that?

9 A. I do.

10 Q. Okay. And here you say: A
11 person of ordinary skill in the art would
12 therefore understand that the term "single
13 sample volume" encompasses situations in
14 which a portion of an original sample
15 solution is separation into droplets for
16 later amplification.

17 Did you mean to say separated
18 there?

19 A. Yeah, that was my grammatical
20 error. It should say separated rather than
21 in separation.

22 Q. I understood what it meant.
23 It's a typo?

24 A. Sometimes it's more than a
25 typo. It's bad grammar. I apologize.

1 C. A. Batt, Ph.D.

2 Q. Thank you for clarifying.

3 When you say "droplets" here,
4 do you mean single droplets?

5 A. No, the term is droplets.

6 Q. So, it means more than one?

7 A. When you're making droplets,
8 you're making more than one.

9 Q. Does the word "droplets" give
10 you a clue whether it's one droplet or more
11 than one droplet?

12 A. It's typically more than one
13 droplet. If you took a sample and divided
14 it up into one droplet, it's not being
15 separated.

16 Q. You used the word droplets,
17 plural.

18 Do you see that?

19 A. Yes, it's definitely intended
20 to be more than one.

21 Q. In your declaration, you use a
22 plural for the word "droplets." You
23 intended it to mean more than one, right?

24 A. Well, because it's a sample
25 being separated into droplets. There's no

1 C. A. Batt, Ph.D.

2 separation if the sample is one droplet.

3 Q. Understand. In just conveying
4 that information in your declaration, you
5 used the plural droplet with an S at the
6 end to indicate there is more than one?

7 A. Correct.

8 Q. What do you mean for later
9 amplification?

10 A. Well, so the process as
11 described here. The process is where you
12 take a sample, you separate it into
13 droplets, and then you do preliminary chain
14 reaction amplification on those droplets,
15 on that collection of droplets.

16 Q. You're considering a single
17 sample volume to be the pre-separated
18 sample; is that correct?

19 A. Correct.

20 Q. So, in that case, the reaction
21 is not done on the single sample volume
22 because the single sample volume is
23 pre-separated, correct?

24 A. Well, it's still the same
25 sample. It just has been separated into

1 C. A. Batt, Ph.D.

2 droplets. All the contents should be the
3 same.

4 Q. After it's been separated, it's
5 no longer a single sample volume, correct?

6 A. But it represents that single
7 sample.

8 Q. I am just asking if there's
9 more than one droplet, each one of those
10 droplets could be considered a sample,
11 correct?

12 A. I wouldn't characterize that as
13 a sample.

14 Q. Could it be the portions of a
15 sample volume?

16 A. If you extracted a single
17 droplet, would it be a portion of the
18 larger initial sample? Yes.

19 Q. Would it then also be
20 considered a single sample volume at that
21 point?

22 A. You know, I think it's a
23 nuanced term. I'm not sure that I quite
24 understand what you're trying to get at.

25 Q. I am asking, if you had a

1 C. A. Batt, Ph.D.

2 single droplet that you were testing with
3 PCR reaction, running PCR reaction on it,
4 is that single droplet also considered a
5 single sample volume?

6 A. Not the same as the original
7 single sample volume. If you took out a
8 droplet, perhaps you could say that that in
9 and of itself is a sample of the sample,
10 right?

11 Q. Yes, I understand.

12 A. I mean, you know, it's -- it's
13 a term, yeah. I mean, I'm not --

14 Q. So, the droplet would be a
15 sample of the original sample?

16 A. It would be a sample of the
17 original sample.

18 Q. It's a single droplet, so it
19 would be a single sample?

20 A. Right. But it's rarely dealt
21 with as a single droplet. That's not the
22 point.

23 Q. It's fair to characterize that
24 droplet as a single sample volume; is that
25 right?

1 C. A. Batt, Ph.D.

2 A. If in a hypothetical you took a
3 sample, divided it into droplets and took
4 just one of those droplets for reasons that
5 I don't know, but let's stipulate that,
6 that's another sample, I guess.

7 Q. Let's look at paragraph 17.
8 And in paragraph 17 you say that you
9 disagree with Dr. Struhl's suggestions that
10 Larson focuses solely on a single target
11 per droplet.

12 Do you see that?

13 A. I do.

14 Q. And the quote you referenced
15 from Dr. Struhl talks about identifying a
16 single analyte molecule within a droplet,
17 correct?

18 A. Can you point out?

19 Q. If you look, the sentence that
20 starts with: First, I disagree.

21 Do you see that?

22 A. Got it.

23 Q. Then after that you have a CEG,
24 Exhibit 2018.

25 A. So, Larson is replete -- this

1 C. A. Batt, Ph.D.

2 is the quote of Struhl that you want to
3 focus on?

4 Q. Yes. So, do you understand
5 that Exhibit 2018 was Dr. Struhl's
6 declaration that you reviewed?

7 A. Yes.

8 Q. And here you're disagreeing
9 with Dr. Struhl's opinion about that Larson
10 is replete with examples of how to identify
11 a single analyte molecule within a
12 droplet -- and the quote goes on.

13 Do you see that?

14 A. Yes.

15 Q. And Dr. Struhl didn't use the
16 word "target" there, correct?

17 A. Well, if it's his quote, and
18 let's say it is, he's talking about a
19 single analyte molecule.

20 Q. Is there a difference between a
21 PCR target and an analyte molecule?

22 A. Certainly, analyte molecule
23 represents a broader term than a PCR.

24 Q. PCR target?

25 A. PCR target, yeah. So, analyte

1 C. A. Batt, Ph.D.
2 molecules is a broader term. PCR target
3 tends to imply the technique that you will
4 then use to analyze that particular target
5 as opposed to analyte molecule, you could
6 be doing it by mass spectrometry. You can
7 do it by gas chromatography.

8 Q. It's true that a single analyte
9 molecule could have multiple targets within
10 that single molecule, correct?

11 A. Correct.

12 MR. SALEN: Let's look at a
13 different exhibit. This is
14 Exhibit 1017 that's been marked in
15 this proceeding.

16 Q. And do you recognize --

17 MR. SALEN: And for
18 identification for the record, this is a
19 United States Patent Application
20 Publication with Publication Number US
21 2011/0250597 and to Larson, et al.

22 (Previously marked exhibit.)

23 BY MR. SALEN:

24 Q. Do you recognize this document?

25 A. I do.

1 C. A. Batt, Ph.D.

2 Q. Is this the Larson reference
3 you've been referring to in your
4 declaration?

5 A. It is.

6 Q. You spent a lot of time
7 reviewing this document, correct?

8 A. I did.

9 Q. Let's look at paragraph 6,
10 which is on page 42 of the -- of
11 Exhibit 1017. Are you with me?

12 A. Okay. Thank you.

13 Q. And if you take a minute to
14 review paragraph 6, and then I'll have a
15 few questions about it.

16 Have you reviewed it?

17 A. I have.

18 Q. So, in paragraph 6, Larson
19 talks about diluting a sample to limit the
20 number of molecules per droplet, correct?

21 A. Correct.

22 Q. We've established molecules are
23 different than a target, correct?

24 A. I wouldn't say that.

25 Q. Molecule's a broader term than

1 C. A. Batt, Ph.D.

2 target, correct?

3 A. They're entirely different
4 terms. I would not necessarily try to
5 align one broader than another. They're
6 two different terms.

7 Q. A molecule can have multiple
8 targets on it, correct?

9 A. Yes.

10 Q. When Larson talks about limited
11 dilution of a sample by limiting the number
12 of molecules that are in a droplet, that's
13 not necessarily talking about limiting the
14 number of -- let's focus on molecules and
15 not on targets, correct?

16 A. Well, Larson is using
17 molecules. I don't think they're
18 necessarily deliberately trying to
19 distinguish molecules from targets.

20 Q. In the beginning of this
21 paragraph, Larson talks about -- uses the
22 term "terminal dilution."

23 Do you see that?

24 A. I do.

25 Q. What's your understanding of

1 C. A. Batt, Ph.D.

2 what the term "terminal dilution" means?

3 A. So, there's two terms. One is
4 terminal dilution. The other one is
5 limiting diluting. In terminal dilution,
6 you're further diluting out where your
7 expectation is that there's statistically,
8 mostly one or zero targets or molecules,
9 whatever word you want to use there, in a
10 given droplet.

11 Whereas limited dilution is
12 that there may be zero, one, or more than
13 one target or molecule in a droplet.

14 Q. So, let's look back -- and if
15 you could keep your declaration handy.
16 We'll maybe switch back and forth a little
17 bit. If you look back at Exhibit 1043, and
18 I would like to focus now on paragraph 20
19 of your declaration.

20 And at the end of this
21 paragraph, you say that: Larson further
22 teaches that the intensity of signals can
23 be adjusted to prevent ambiguous results,
24 thus, unambiguously distinguishing multiple
25 targets in a single droplet.

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2 Do you see that?

3 A. I do.

4 Q. You cite to three paragraphs
5 from Exhibit 1017 which is Larson, correct?

6 A. Correct.

7 Q. So, that's paragraph 35,
8 paragraph 146, and paragraph 150, correct?

9 A. That's correct.

10 Q. And those paragraphs you say
11 support your conclusion here at the bottom
12 of paragraph 1, correct?

13 A. Correct.

14 Q. Let's look back at Exhibit 1017
15 and let's look at paragraph 35, which is
16 the first paragraph that you cited there.
17 And paragraph 35 is on page 45 of
18 Exhibit 1017.

19 Do you see that?

20 A. I do.

21 Q. Could you take a minute to
22 review paragraph 35?

23 A. Okay.

24 Q. Paragraph 35 doesn't say
25 anything about identifying multianalyte

1 C. A. Batt, Ph.D.

2 droplets, does it?

3 A. You mean droplets that have
4 more than one target in there, is that what
5 your question is? When you say
6 multianalyte droplets, what do you mean?

7 Q. Well, let's use your term then.
8 It doesn't say anything about identifying
9 multitarget droplets, does it?

10 A. It doesn't speak to the issue
11 of whether the targets exist in singular or
12 more than one copy in a droplet. If
13 that's -- yeah.

14 Q. Okay. And you're looking, I
15 believe, at Figure -- Figure 15?

16 A. Right. So, paragraph 35 refers
17 to Figure 15.

18 Q. Let's look at Figure 15 then,
19 and that's on page 19 of Exhibit 1017. And
20 let's start looking at the plot on the
21 left.

22 There's two plots here,
23 correct?

24 A. That's correct.

25 Q. Looking at the plot on the

1 C. A. Batt, Ph.D.

2 left, the plot on the left is a heat map
3 that shows nine different targets, correct?

4 A. I wouldn't characterize it as a
5 heat map.

6 Q. How would you characterize it?

7 A. So, this is histogram and
8 basically, you can't see -- this basically
9 indicates the fluorescence intensity
10 registered in a droplet. It's just simply
11 the collection of fluorescence intensities.
12 So, the bigger the spot, the more droplets
13 at that particular -- you know, this is VIC
14 and FAM intensity.

15 Q. And each cluster of dots in the
16 heat map represents a cluster of droplets
17 with a corresponding signal, correct?

18 A. Each point represents a
19 fluorescence intensity which we then assume
20 is a fluorescence intensity derived from
21 either one or more than one intensity in
22 the droplet.

23 Q. You can see a distinct cluster
24 of droplets in the plot for each target,
25 correct?

1 **C. A. Batt, Ph.D.**

2 A. Well, this is part of the
3 optimization process. So, going from the
4 left panel to the right panel, the right
5 panel after optimization gives you a much
6 clearer clustering of a fluorescence
7 intensities.

8 **Q. You can distinguish single**
9 **occupancy droplets with different targets**
10 **from one another, correct?**

11 A. This is not registering whether
12 or not the fluorescence intensity came
13 from -- whether or not a single droplet had
14 one or more fluorescence intensity. You
15 can't tell that from this plot.

16 **Q. Is it your understanding that**
17 **the samples here were diluted in any way?**

18 A. Diluted from?
19 [Crosstalk.]

20 **Q. We had used the terms limiting**
21 **dilution and terminal dilution earlier?**

22 A. So, without going through and
23 looking at the details of how this
24 particular experiment was done, I couldn't
25 tell you whether or not this was a limiting

1 C. A. Batt, Ph.D.

2 or terminal dilution.

3 Q. Assuming we're looking at
4 droplets, at least some of them in each of
5 the clusters that are single occupancy
6 droplets, you can distinguish single
7 occupancy droplets with one target from
8 single occupancy droplets with another
9 target, correct?

10 A. No.

11 Q. You can't do that here? You
12 can't distinguish those?

13 A. No, because all you're looking
14 at is fluorescence intensity. So, in other
15 words, a droplet comes along, passes this
16 beam, and the beam has the ability to look
17 at different fluorescence and different
18 intensities. I'm simplifying it just for
19 the purpose of discussion.

20 So, as a droplet goes by, there
21 is an interrogation asked: Is there a FAM
22 intensity? Is there a VIC intensity? And
23 it will measure that. In this particular
24 analysis, a droplet with a FAM intensity
25 and a VIC intensity would show up the same

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2 as a droplet with just a FAM intensity or a
3 droplet with just a VIC intensity.

4 Q. There's no way to distinguish
5 those from each other?

6 A. Not in this plot, no. That's
7 the point of Larson, right? That's how you
8 do multiplexing because you can interrogate
9 those signals separately because they have
10 different wavelengths and they have
11 different intensities.

12 Q. Okay. But you can't
13 distinguish a multitarget droplet from a
14 single target droplet?

15 A. That's not the point of this
16 assay. The point of this assay is not to
17 interrogate what is in a single droplet.
18 It is what is in that single sample,
19 original single sample of volume.

20 Q. So, if we look at the optimized
21 panel, which is the panel on the right,
22 each of these clusters identifies a single
23 target, correct? Starting at the top left,
24 TERT is in the top left, correct?

25 A. Correct.

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2 Q. ElA is next to that?

3 A. Right.

4 Q. RNaseP is to the right of that,
5 correct?

6 A. Correct.

7 Q. 815A is underneath the TERT
8 signal, correct?

9 A. That is correct.

10 Q. And there's nine total distinct
11 targets identified here, correct?

12 A. There are nine with labels, and
13 then there's a big blotch there which is
14 droplets without any target.

15 Q. And in these nine labeled
16 clusters, each one is referring to a single
17 target, correct?

18 A. Each one is referring to a
19 single, yes.

20 Q. So, that's identifying the
21 single target in a single occupancy
22 droplet, correct?

23 A. Not necessarily.

24 Q. Would there be -- well, let me
25 ask it a different way.

1 C. A. Batt, Ph.D.

2 How do we know where the E1A
3 cluster is if that's not the TERT and
4 the -- a droplet with both TERT and 5C in
5 it?

6 A. Because there are different
7 fluorescence intensities in the different
8 wavelengths.

9 Q. If you were able to have a
10 droplet with both TERT and 5C in it, where
11 would it show up in this histogram?

12 A. Again, this is not measuring
13 droplets. It's measuring fluorescence
14 intensities.

15 Q. I understand that. But each of
16 the points on the histogram represents a
17 droplet -- a fluorescence intensity from a
18 droplet, correct?

19 A. Yes.

20 Q. If you had a droplet that had
21 both TERT and 5C targets in it, where would
22 that fluorescence intensity show up?

23 A. You get two. You get one for
24 the TERT and one for the 5C.

25 Q. From the same droplet?

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2 A. Yeah.

3 Q. Can you explain how that would
4 work, how you would have two?

5 A. It's not a very common event,
6 but, again, these are independent
7 fluorescence and independent intensities.

8 Q. So, you would see two different
9 points on the same histogram from the one
10 droplet?

11 A. Yes.

12 Q. In a PCR reader, when it
13 interrogates a droplet, you understand that
14 it's possible for the interrogation of a
15 droplet to result in two different data
16 points?

17 A. Yes, because it's measuring
18 fluorescence intensity, right? So, it's
19 measuring a peak. Can we go to another
20 figure?

21 Q. Yeah, I'm trying to understand.

22 A. Let's do that. Let's go to
23 Figure 11.

24 Q. Figure 11 is talking about a
25 single wavelength, right? Or single

1 C. A. Batt, Ph.D.

2 change, correct?

3 A. Figure 11 is talking about a
4 single channel and is talking about
5 different -- right. So, this is just one
6 dimension of a two-dimensional plot.

7 Q. There's only one dimension
8 shown, correct?

9 A. Right. In other words, if you
10 had different wavelengths and different
11 intensities, if you're measuring those two
12 things separately, right, you're measuring
13 one channel at one wavelength and another
14 channel at another wavelength. And then
15 every drop that goes through, you're
16 measuring the intensity of that drop.

17 That's what I am trying to get
18 to.

19 Q. I understand what you're
20 saying.

21 A. That's what I am trying to get
22 to is that a droplet with two different
23 wavelengths, two different intensities,
24 would show up as two separate peaks even
25 though it's in one droplet. Two droplets,

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2 each with only one wavelength and one
3 intensity and another droplet with another
4 wavelength and another intensity would give
5 you the same result.

6 Q. I see what you're saying.

7 A. In that histogram plot, right.
8 It's simply collecting how many events
9 occurred at one wavelength and one
10 intensity and how many occurred at another
11 wavelength at another intensity.

12 Q. Just for the record, you didn't
13 talk about Figure 11 in your opening
14 declaration, correct?

15 A. I didn't cite Figure 11 as much
16 as I should have. In other words, in
17 retrospect, Figure 11 is illuminating, as
18 this conversation indicated. I should have
19 cited it more, but I did. There are a
20 number of instances -- and I can go back
21 through my original declaration to
22 highlight those better, but it was there.

23 Q. You didn't talk about Figure 11
24 in your opening declaration, correct?

25 A. I have to go back and look. I

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2 do recall there was some reference to it,
3 but, again, not necessarily as much as I
4 could have.

5 Q. Let's talk about Figure 15
6 again. I understand how you're saying
7 these molecules or targets would appear in
8 Figure 11, but I just want to understand
9 how. So, talking about the TERT signal
10 again on the optimized panel.

11 So, the TERT showing up in the
12 VIC intensity at 90 amount, right, whatever
13 that signal intensity is.

14 A. That looks about right, yeah.

15 Q. And it shows up at about 60 in
16 the FAM intensity, correct?

17 A. That's actually the baseline.

18 Q. So, it's basically at the
19 baseline, so what we may call zero or
20 baseline?

21 A. In other words -- and let me
22 back up a second. The optimization here is
23 pretty clear because the right side is much
24 clearer than left side. Right? The
25 separation is much clearer.

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2 So, the big blob at the bottom,
3 right, which has a VIC intensity of around
4 40 and FAM intensity of around, let's say
5 55. You following me?

6 Q. Yes.

7 A. That's the baseline. That's
8 the fluorescence intensity in the VIC
9 channel and in the FAM channel for a
10 droplet has nothing in it.

11 So, your example, TERT here has
12 a VIC intensity, I think you said it was
13 about 90, and has no FAM intensity above
14 the baseline.

15 Q. And the 5C target, that has
16 a -- actually, let me talk about a
17 different -- let's talk about 815A first.

18 That's about 70 on the VIC
19 intensity, correct?

20 A. You said?

21 Q. 815A.

22 A. 815A. Right. Again, that has
23 a VIC intensity around 70, correct, and no
24 appreciable FAM intensity.

25 Q. Let's look at 815G. 815G is

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2 about baseline in VIC and about 90 in FAM;
3 is that fair?

4 A. That's correct.

5 Q. I want to understand in this
6 particular plot, if you had a droplet
7 that's interrogated in the VIC channel and
8 comes up with 70 and then is interrogated
9 in the FAM channel and comes up with 95,
10 what target's in that droplet?

11 A. So, VIC, you're saying, is 70?

12 Q. Yeah.

13 A. And FAM is 95? That's the 5C
14 target.

15 Q. How do you know that that
16 droplet doesn't contain -- instead of 5C,
17 it contains 815A and 815G?

18 A. 815A. Because, again, we're
19 not scoring individual droplets. That's
20 the point.

21 Q. I understand, but individual
22 droplets show up as points on this
23 histogram, correct?

24 A. No. Because you're just
25 measuring fluorescence intensity. It's

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2 not -- this is aggregating across, let's
3 say, 500,000 droplets. It's saying how
4 many times will I see this fluorescence
5 intensity at this wavelength and how many
6 times I see this fluorescence intensity at
7 this wavelength.

8 Q. But, usually, interrogation is
9 taking readings -- interrogating droplets
10 one by one, correct?

11 A. Sure.

12 Q. Okay. So, I am asking if you
13 interrogate a droplet and it has 70 in VIC
14 and 95 in FAM, how do you know that that
15 doesn't have two targets in the droplet
16 that are showing 815A and 815G?

17 A. You don't know that because
18 it's simply registering a fluorescence
19 intensity. It's agnostic to whether it's
20 one droplet or two droplets.

21 Q. So, you cannot distinguish the
22 815A and 815G being in one droplet versus
23 the 5C being in that same droplet?

24 A. Yeah. This is just
25 measuring -- the point of, yes. Yeah.

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2 Q. So, just talking about the
3 situation of interrogating a single
4 droplet, just to make sure I have an
5 understanding of the record.

6 Do you agree with me that you
7 cannot distinguish between a droplet in the
8 single interrogation that has 5C target in
9 it from a droplet in that same single
10 interrogation that would have 815A and 815G
11 in the droplet?

12 A. This histogram is agnostic to
13 where exactly that intensity came from. It
14 talks about droplet counts which is how
15 many times it registers, you know. It
16 doesn't say it's ten droplets. It's how
17 many times it registers that signal.

18 Q. So, in order to identify the
19 droplets in that cluster at 5C as being --
20 in other words, at the 70 VIC and 95 FAM,
21 in order to register droplets at that --
22 appearing in that cluster as having target
23 5C, the assumption is that most of those
24 droplets are single molecule droplets,
25 correct?

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2 A. If you're doing terminal
3 dilution, that's more likely than if you
4 were doing limiting dilution.

5 Q. So, does this plot here, then,
6 show droplets where there's an assumption
7 that you have terminal dilution?

8 A. I couldn't say that.

9 Q. Why would you not label the
10 cluster at 70 VIC and 95 FAM as both 815A
11 and 815G or 5C?

12 A. Because you're registering
13 individual events. That's what I am trying
14 to say.

15 Q. Each individual event, the
16 assumption is that there's only a single
17 molecule in that droplet, correct?

18 A. I can't say that.

19 Q. Otherwise, you can't
20 distinguish between double occupancy and
21 single occupancy, correct?

22 A. That's not the point of this.
23 It doesn't exclude it. Doesn't include it.

24 Q. Let's go back to paragraph 35.

25 A. In Larson?

1 C. A. Batt, Ph.D.

2 Q. In Larson, in 1017. Do you
3 agree there's nothing in this paragraph or
4 in Figure 15 that discloses how to
5 unambiguously distinguish multiple targets
6 in a single droplet, correct?

7 A. No, it does it by virtue of the
8 initial design and experiment where you're
9 basically using wavelength and intensity to
10 develop a method whereby you can look at
11 more targets.

12 Figure -- Figure 15 is a great
13 example, right. You have two fluorescence
14 intensities, right. You have FAM and you
15 have VIC, and you have nine targets, right.
16 So, you're able to determine more targets
17 than fluorescence intensities. I think the
18 terms are F and M in '921.

19 Q. I am asking you if either
20 Figure 15 or paragraph 35 disclose how to
21 unambiguously distinguish multiple targets
22 in a single droplet?

23 A. In a single sample or a single
24 droplet, it doesn't matter. It's basically
25 telling you how to do it, right. You have

1 C. A. Batt, Ph.D.

2 nine targets that you're looking at with
3 two fluorescence intensities.

4 Q. We went through this before. I
5 am trying to understand because I feel like
6 your answers are -- I'm not sure I
7 understand your answers. I want to be
8 clear because I thought I asked the
9 question and maybe I didn't. So, let me
10 try again.

11 So, let's go back to Figure 15.
12 In the situation in Figure 15, we talked
13 about each one of the points representing
14 an interrogation of a droplet, correct?

15 A. Yes.

16 Q. For a single interrogation
17 which is a single droplet, if you were to
18 see 70 in the VIC and 95 in the FAM, how do
19 you distinguish between that being target
20 5C versus being both targets 518A and
21 515G -- I totally misspoke. Let me try the
22 question again.

23 (Whereupon, an off-the-record
24 discussion was held.)

25 BY MR. SALEN:

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2 Q. In a situation where you have
3 an interrogation of a single droplet, so
4 we're looking just at one point. And you
5 see that that one point has 70 VIC and 95
6 FAM. How do you tell the difference
7 between that droplet having target 5C
8 versus that droplet having both targets
9 815A and 815G?

10 A. I see what you're trying to get
11 to. Let me clarify this again. That --
12 assuming that that droplet existed, right,
13 that had those particular two targets in
14 there, that preponderance would probably be
15 off of the 5C cluster by some fraction. In
16 other words, it's not exactly 815A looks
17 more like 70. 5C looks more like 65.

18 Q. Figure 15 doesn't show droplets
19 that are --

20 A. No, it shows fluorescence
21 intensity. In other words, fluorescence
22 intensity of VIC in 815A is about 70,
23 right. Now, if we move over to 5C, it's
24 around 65. Do you see that shift? It's
25 not the same.

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2 Q. I'm sorry, say that again.

3 A. In other words, that the way
4 these methods work is that they separate
5 out based upon wavelength and intensity.
6 That's that optimization process. That's
7 why you notice, for example, that VIC
8 intensities are different in panel -- in
9 the panel on the left-hand side versus
10 right-hand side.

11 And that's what they're trying
12 to do. They're trying to tune in on the
13 intensity so that they don't overlap as
14 much. And that's what you see from the
15 left panel to the right panel, things
16 separating out better, but also the
17 intensities are not exactly the same.

18 Q. The cluster where 5C is shown
19 extends actually across multiple
20 intensities in VIC and FAM?

21 A. Right, but if you look at the
22 preponderance of the single.

23 Q. And if you're interrogating --
24 for the interrogation of a single droplet
25 to present a single point of intensity in

1 C. A. Batt, Ph.D.
2 both VIC and FAM, if you had a VIC and FAM
3 signal that was between 60 and 70 in VIC
4 and between 80 and 100 in FAM, how can you
5 tell whether or not that -- based on Figure
6 15, whether or not that droplet is one or
7 two targets?

8 A. Yeah. Okay. So, it might be
9 important for us to look at the scale on
10 the right-hand side, that bar that talks
11 about drop count. Right. You see that,
12 you know, most of the -- wherever you're
13 seeing white, it's probably in the order
14 around 200 droplets.

15 So, you are, in principle,
16 correct, that there could be a single
17 droplet that has both of those in there
18 that gave you a confusing signal, but you
19 would not see it because it's .5 percent of
20 the population.

21 Q. How do you know it's .5 percent
22 of the population?

23 A. No. I'm just making up numbers
24 right now. I am looking at the relative
25 intensity, right. This scale here on --

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2 the scale on the right-hand side that goes
3 from zero to 50 to 125. Are you seeing
4 that?

5 Q. Yeah.

6 A. In other words, each one of
7 these white spots here represents a lot of
8 droplets. So, if you had one single
9 droplet that, as you want to point out and
10 -- correct, it would not even show up here.
11 You wouldn't see it.

12 Q. Is that because the experiment
13 was designed to have mostly single target
14 droplets?

15 A. That's the point of limiting
16 dilution, but that still doesn't mean you
17 could not distinguish those based upon
18 wavelengths and intensities.

19 Q. But Figure 15 doesn't show
20 that, right?

21 A. Doesn't show what?

22 Q. Doesn't show how to distinguish
23 between a situation where you have a
24 droplet with two targets versus a situation
25 where you have a droplet with one target?

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2 A. Yes.

3 Q. And paragraph 35 doesn't
4 explain how to do that either, correct?

5 A. Okay. Ask your question again.

6 Q. Paragraph 35 doesn't explain a
7 method for distinguishing between droplets
8 that have a single target versus droplets
9 that have two targets, correct?

10 A. As an individual, in other
11 words, I am interrogating just one droplet?

12 Q. Correct.

13 A. It depends on the target. In
14 other words, you know, would I be able to
15 detect a droplet that had -- let's pick out
16 two extremes -- TERT versus 88A, yes.

17 Q. What about a droplet that has
18 815G and 815A versus a droplet that has 5C?

19 A. I mean, at this resolution,
20 it's hard to say. Again, there's some
21 overlap. This doesn't account for single
22 droplets. I can't see a single droplet in
23 this plot.

24 Q. So, it doesn't teach how to do
25 that, correct? How to distinguish between

1 C. A. Batt, Ph.D.

2 the two targets and the one target
3 droplets?

4 A. I can't determine that from
5 this particular piece of information.

6 Q. And paragraph 35 doesn't teach
7 you how to do that either, correct?

8 A. I can't determine that, yeah.

9 Q. Let's look at paragraph 146.
10 So, paragraph 146 of Larson is on page 57
11 of Exhibit 1017; is that right?

12 A. Correct.

13 Q. I want you to review paragraph
14 146, if that's okay.

15 A. Okay.

16 Q. So, with respect to paragraph
17 146 refers to Figure 14A, correct?

18 A. Yes.

19 Q. Okay. And Figure 14A, that's
20 also a histogram showing clusters and
21 signal intensities and wavelengths that
22 have come from interrogated droplets,
23 correct?

24 A. Correct.

25 Q. And paragraph 146 doesn't say

1 C. A. Batt, Ph.D.

2 anything about identifying multioccupancy
3 droplets, does it?

4 A. It's the same argument we had
5 before. It's the same conversation we had
6 before.

7 Q. So, your comments about what
8 Figure 15 -- or, actually, testimony about
9 Figure 15 and paragraph 35 applies equally
10 to paragraph 146 in Figure 14A?

11 A. Yeah. I mean, the reason why
12 it's hard to really say what's going on
13 here is I'll refer you to the occupancy
14 statement which is in the middle. It says
15 samples were run at 0.006 occupancy.

16 Q. Is that terminal dilution?

17 A. I'm not sure that there's an
18 exact delineation between terminal and
19 limiting dilution. I would say it's more
20 likely to be terminal dilution.

21 Q. What's the goal of terminal
22 dilution again?

23 A. Well, terminal dilution and the
24 entire nature of Larson and digital PCR in
25 general is to do quantification. So, to do

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2 quantification where you have multiple
3 copies of the same target, then you cannot
4 do that -- there's a variety of methods to
5 do it in bulk, but digital PCR is one of
6 the methods to do quantification of
7 multiple copies of one target or multiple
8 copies of different targets.

9 But again, it has to do with
10 the number of copies of targets rather than
11 the number of targets.

12 Q. Look at Figure 14A, which is
13 on -- 14A is on page 18 of Exhibit 1017,
14 correct?

15 A. Correct.

16 Q. And Figure 14A is also showing
17 on the left side of the scale, the VIC
18 intensity and on -- I'm sorry, the Y axis
19 is the VIC intensity and the X axis is the
20 FAM intensity, correct?

21 A. Correct.

22 Q. And each one of the targets
23 that are identified here or each one of the
24 clusters identified here refer to a single
25 target, correct?

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2 A. Correct.

3 Q. And how do you know that the
4 points that are shown in the cluster that's
5 at 4 VIC, approximately, and about 5.5, it
6 looks like, FAM or 6 FAM, are BCKDHA
7 single-target droplets versus 815A and SMN1
8 multiple-target droplets?

9 A. At that dilution, the
10 probability of two targets in a single
11 droplet is essentially one.

12 Q. So, the assumption is that you
13 only have single-target droplets here,
14 correct?

15 A. Well, it's based upon the math,
16 not based upon anything this data shows
17 you.

18 Q. I understand, but the ability
19 to label a single target in each of these
20 clusters is based on an assumption from the
21 math that you would have mostly
22 single-target droplets there, correct?

23 A. Again, it depends on -- you
24 gave an example of one. I could say, for
25 example, distinguishing 815A from 815G in

1 C. A. Batt, Ph.D.
2 this particular case is relatively
3 straightforward because, again, they would
4 have different -- different FAM
5 intensities.

6 Q. What about distinguishing
7 BCKDHA and SMN2 in a droplet versus 815G in
8 that same droplet?

9 A. Again, at that dilution, the
10 probability of two targets in a single
11 droplet is infinitesimally small.

12 Q. And paragraph 146 specifically
13 teaches that you should limit the dilution
14 or run this assay at a terminal dilution
15 such that there are mostly or high
16 probability of only having single target
17 droplets, correct?

18 A. That's the design of this
19 particular experiment.

20 Q. Let's look at paragraph 150 in
21 your declaration, and that's on page 58 of
22 1017. And I am sorry, I misspoke earlier.
23 Let me clear that up. I said to look at
24 paragraph 150 of your declaration. I meant
25 to say look at paragraph 150 of Larson.

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2 Let me know when you're with me.

3 A. Okay.

4 Q. And if you could review your
5 paragraph 150 for me, please.

6 A. Okay, yes.

7 Q. You've reviewed paragraph 150?

8 A. I have.

9 Q. Okay. And nothing in paragraph
10 150 discloses a method for identifying
11 multiple-occupancy droplets, correct?

12 A. Correct.

13 Q. And paragraph 150 refers to
14 Figure 15B, which do you understand that to
15 be the right-side panel or optimized panel
16 in Figure 15?

17 A. Correct.

18 Q. And we've already talked about
19 Figure 15, so I think we can move on. And
20 let me just pause here for a minute.

21 (Whereupon, a short break was
22 taken at this time.)

23 BY MR. SALEN:

24 Q. Welcome back, Dr. Batt. So,
25 let's go back to your declaration which is

1 C. A. Batt, Ph.D.

2 Exhibit 1043, and if we could look at your
3 paragraph 27, please. Paragraph 27 appears
4 on page 15 of Exhibit 1043.

5 Do you see that?

6 A. Yes.

7 Q. In this paragraph you're
8 talking about the Saxonov reference,
9 correct?

10 A. That's correct.

11 Q. You reference to the
12 provisional application of Saxonov.

13 Do you see that?

14 A. The '013 provisional, yes, I
15 do.

16 Q. And the Saxonov provisional
17 that you referred to in paragraph 27,
18 that's Exhibit 1007 in this proceeding; is
19 that right?

20 A. As noted here, yes.

21 Q. And you cite to a table in
22 paragraph 27, appears below the paragraph,
23 and that comes from Column 11 of Saxonov,
24 correct?

25 A. That's correct.

1 C. A. Batt, Ph.D.

2 Q. This table talks about
3 distinguishing between three targets in a
4 single color channel, correct?

5 A. Correct.

6 Q. And the signals acquired from
7 the PCR instrument here are referred to as
8 populations, correct?

9 A. Yes.

10 Q. And each population refers to a
11 cluster of signal intensities from droplets
12 that were interrogated by the instrument;
13 is that right?

14 A. Yes. I mean, it's not explicit
15 here in that table itself. But if you're
16 referring back to the Saxonov in the
17 provisional patent, yes.

18 Q. Okay. Table doesn't provide a
19 method for distinguishing between
20 Populations 5, 6, and 7, does it?

21 A. So, Populations 5, 6, and 7 --
22 what's your question?

23 Q. How can you distinguish between
24 those populations of what targets are in
25 them based on this table?

1 C. A. Batt, Ph.D.

2 A. So, Population 7 has Targets A
3 and B, Population 6 has Targets A and C,
4 and Population 5 has Targets B and C.

5 Q. And what's the intensity for
6 Population 7?

7 A. It's listed here as
8 intermediate.

9 Q. What's the intensity for
10 Population 6?

11 A. It's also intermediate.

12 Q. What's the intensity for
13 Population 5?

14 A. It's also listed as
15 intermediate.

16 Q. How do you tell the difference
17 between those three populations based on
18 this table?

19 A. I'm not sure I understand the
20 question.

21 Q. Can you distinguish between
22 Populations 5, 6, and 7 based on the
23 information that are in this table?

24 A. Well, again, this table is
25 summarizing data, and there's a second

1 C. A. Batt, Ph.D.
2 dimension that's not represented here
3 that's then summarized into Target A, B,
4 and C. So, what's missing from this
5 table -- and if you want to take out
6 Saxonov, we can probably sort this out --
7 is what the fluorescence intensities are
8 for these things. But, you know, from this
9 table -- strike that.

10 (Whereupon, an off-the-record
11 discussion was held.)

12 MR. SALEN: I'm handing you
13 what's been marked in this proceeding
14 as Exhibit 1007.

15 (Previously marked exhibit.)

16 BY MR. SALEN:

17 Q. Do you recognize this document?

18 A. I do.

19 Q. For identification for this
20 record, this says Provisional Application.
21 It says Application Number, the top left,
22 61/510,013. It's been marked as
23 Exhibit 1007.

24 Do you recognize this document
25 as the Saxonov '013 provisional that you

1 C. A. Batt, Ph.D.

2 refer to in paragraph 27?

3 A. I do.

4 Q. Okay. We can look at column --
5 if we look at page 11. I'm sorry, I
6 referred to it on the record earlier as
7 Column 11, but the table appears on page
8 11, correct?

9 A. Correct.

10 Q. It's at page 11 of -- the
11 provisional application is actually page 17
12 of Exhibit 1007, just to confirm we're in
13 the same place.

14 Do you see that?

15 A. Yeah.

16 Q. If you look before at the text
17 or the description in Saxonov starting on
18 page 10, I guess before the table, and then
19 if you can review that and then you can
20 continue to -- through the table on page
21 11. And then I want to ask you the same
22 question.

23 A. Give me a moment to...

24 Q. Let me know when you're
25 finished reviewing.

1 C. A. Batt, Ph.D.

2 A. Okay.

3 Q. So, does -- how does one
4 distinguish between Populations 5, 6, and 7
5 based on intensity in table -- in the table
6 that appears?

7 A. Because I think each of these
8 targets is representing a different
9 fluorescence wavelength. That's my
10 interpretation of it.

11 Q. How do you know that?

12 A. Because it talks about a
13 two-dimensional color intensity space. So,
14 what's lacking in this table -- and I will
15 admit is not exactly clear -- is a color
16 and an intensity. So, what you're looking
17 at in the last column is just the
18 intensity.

19 Q. This is a disclosure from
20 Saxonov, correct?

21 A. Correct, yes.

22 Q. In your declaration on
23 paragraph 27, you say that Saxonov clearly
24 demonstrates that multiple targets per
25 droplet yield eight unique populations

1 C. A. Batt, Ph.D.

2 based on color combinations as seen in the
3 table below, correct?

4 A. Correct.

5 Q. The table below doesn't show
6 any color combinations, does it?

7 A. The table below doesn't
8 translate over to identify which targets
9 are which colors. In other words, what's
10 missing in this table is a clear alignment
11 with the color and intensity and simply
12 what it's listing on the last column of the
13 table is the intensity.

14 Q. Look at paragraph 30 of your
15 declaration.

16 A. Okay.

17 Q. Paragraph 30 says: Most
18 importantly, Saxonov Figure 4 depicts the
19 exact scheme taught by Larson Figure 11-A.

20 Do you see that?

21 A. I do.

22 Q. Are you aware of any
23 shortcomings with respect to multiplex PCR
24 that are taught in the Larson reference
25 that are cured by the Saxonov reference?

1 C. A. Batt, Ph.D.

2 A. Could you repeat that?

3 Q. Is there any problem with the
4 method in Larson with respect to multiplex
5 PCR that are cured or resolved by Saxonov?

6 A. I can't answer that.

7 Q. Did you -- you don't have an
8 opinion on that, right?

9 A. I would have -- I've not been
10 asked that question in the past, so I have
11 a hard time giving you a specific answer.

12 Q. Paragraph 30 in particular, you
13 don't provide any opinion about any
14 particular problem with methodologies
15 disclosed in Larson that you believe
16 Saxonov addresses, right?

17 A. So, what's in Figure 4 above is
18 an example of at one wavelength looking at
19 essentially three different intensities
20 that allow you to distinguish targets based
21 upon, in a single wavelength, using
22 intensity as an example.

23 So, that Figure 4 is
24 representing events, if you would. So,
25 those are countings of droplets.

1 C. A. Batt, Ph.D.
2 Individual peaks are individual droplets,
3 and what you see is numbers 106, 108, 110,
4 112, and as listed below, it aligns those
5 with specific targets so that you could
6 take one wavelength and get more than one
7 target by varying the intensities of the
8 outcomes.

9 Q. And you say that Saxonov Figure
10 4 depicts the exact same scheme, the exact
11 scheme -- sorry, taught by Larson, Figure
12 11A, correct?

13 A. Yes. In other words, it's an
14 example where at a single wavelength you
15 can have three different targets. So, M,
16 as the '921 patent uses that term -- M is
17 greater than F. F here is 1. Right? One
18 wavelength in Figure 4. And there are
19 three different targets that are
20 distinguishable.

21 I'm sorry, two different
22 targets. Let me correct myself. 108 is
23 one target. 110 is one target. 112 is an
24 example of a droplet with two targets in
25 it.

1 C. A. Batt, Ph.D.

2 Q. In a single wavelength,
3 correct?

4 A. This is just one wavelength,
5 yes.

6 Q. And I guess what I am asking,
7 is there any shortcoming of the methodology
8 for detecting multiple targets in a single
9 wavelength that are thought by Larson that
10 Saxonov cures?

11 A. As I stated before, I haven't
12 done that analysis and I haven't compared
13 those two at that level of questioning.

14 Q. Okay. And you don't have any
15 opinion about any particular shortcoming of
16 the methodology disclosed in Saxonov that
17 you believe Larson cures, correct?

18 A. I haven't done that analysis.

19 Q. Okay. Your only basis for why
20 a person of ordinary skill in the art would
21 be motivated to combine Saxonov and Larson
22 is that they teach the same exact scheme,
23 correct?

24 A. No. I think that they're
25 complementary in terms of obviousness.

1 C. A. Batt, Ph.D.

2 When you combine them together, you get
3 certain conclusions that you might not
4 individually.

5 Q. If they teach the same scheme,
6 why would a person of ordinary skill in the
7 art be motivated to combine them if you
8 could accomplish what you need with Larson?

9 A. Well, in the event that you
10 weren't, then, yeah, the two do.

11 Q. But your testimony is that you
12 can accomplish what you need with Larson,
13 correct?

14 A. Larson anticipates the '921
15 patent. Larson makes obvious certain other
16 claims in the '921 patent. And Larson and
17 Saxonov renders obvious certain other
18 claims.

19 Q. I understand those are your
20 conclusions. I guess what I am asking you
21 is: Why, specifically, would a person of
22 ordinary skill in the art need to look to
23 Saxonov if they already had Larson and all
24 its teachings?

25 A. Again, if we're arguing from

1 C. A. Batt, Ph.D.
2 the standpoint of '921, the claims of the
3 '921 patent, not all the claims in the '921
4 patent are obvious -- well, so Larson
5 anticipates the '921. Larson also makes
6 obvious certain claims, and we can go
7 through those in detail, if you want to.

8 Larson itself makes certain
9 claims obvious, and Larson and Saxonov make
10 other claims obvious as well.

11 Q. What is your specific basis for
12 why a person of ordinary skill in the art
13 would have been motivated to combine Larson
14 and Saxonov?

15 A. So, again, it has to do with
16 anticipation versus obviousness.

17 Q. Do you have any basis for
18 saying that a person of ordinary skill in
19 the art would have been motivated to
20 combine Larson and Saxonov?

21 MR. WALTER: I'll just object.
22 That's beyond the scope because that
23 was dealt with in his original
24 declaration. So, I'll object as
25 beyond the scope.

1 C. A. Batt, Ph.D.

2 THE WITNESS: Like I said, the
3 purpose of a person of ordinary skill
4 in the art evaluating the '921 patent
5 and looking for anticipation and
6 obviousness, you know, if you're
7 saying the sum total -- there's a
8 difference saying practicing the '921
9 patent versus the purpose of this
10 proceeding which is to determine:
11 Are those claims valid?

12 Q. All right. Let's look at
13 paragraph 37 of your declaration. I am
14 looking at Exhibit 1043 at page 18.

15 Do you see that?

16 A. 37, yes, I do.

17 Q. And you say here, your opinion
18 is that a person of ordinary skill in the
19 art would be motivated to combine Saxonov
20 and Larson because, in part, Saxonov
21 discloses the same scenarios taught in
22 Larson.

23 Do you see that?

24 A. Correct, I see that.

25 Q. So, you do have an opinion in

1 C. A. Batt, Ph.D.
2 your -- this declaration, Exhibit 1043,
3 about that a person of ordinary skill in
4 the art would have been motivated to
5 combine Saxonov and Larson, correct?

6 A. That's what's stated here, yes.

7 Q. Is your only basis for making
8 that opinion that Saxonov discloses the
9 same scenarios taught in Larson?

10 MR. WALTER: I'll object.
11 Again, I think this is beyond the
12 scope. It says in part. He's got
13 other opinions that were presented --

14 MR. SALEN: You gave me a hard
15 time about coaching when you deposed
16 Dr. Struhl.

17 I understand your objection.

18 MR. WALTER: Okay.

19 MR. SALEN: Thank you.

20 THE WITNESS: As I sit here, a
21 POSA would have a reasonable
22 expectation of success. I can tell
23 you as a person of ordinary skill in
24 the art, I consult various documents
25 when I'm trying to do an experiment,

1 C. A. Batt, Ph.D.

2 right. I just don't look at one
3 paper and say, ah-ha, I got it.

4 I will look at many things and
5 combine those things to where I feel
6 comfortable in my ability to execute.
7 I may go back and read other things.

8 BY MR. SALEN:

9 Q. You don't have any specific
10 opinion in this declaration about the
11 shortcoming of Saxonov that would have
12 motivated a person of ordinary skill in the
13 art to combine it with Larson, do you?

14 A. Again, I didn't do that
15 analysis.

16 Q. And you don't have any opinion
17 in this declaration about a shortcoming in
18 Larson that would have motivated a person
19 of ordinary skill in the art to combine
20 Larson with Saxonov, correct?

21 A. I will stand with what's
22 written here.

23 Q. That's your sole basis for your
24 motivation-to-combine opinion in this
25 declaration, correct?

1 C. A. Batt, Ph.D.

2 A. I'm saying as a practicing
3 [sic] scientist, normal practice is to read
4 multiple things, sort of consult multiple
5 sources.

6 MR. SALEN: I don't have any
7 more questions for you subject to
8 potential follow-up.

9 (Whereupon, a short break was
10 taken at this time.)

11 XXXX

12 EXAMINATION

13 BY MR. WALTER:

14 Q. Dr. Batt, I just have a few
15 follow-up questions. Do you remember on
16 direct examination you were asked some
17 questions about Figures 14 and 15 in the
18 Larson reference?

19 A. I do.

20 Q. You provided some testimony
21 about how the scale of figures was such
22 that droplets with multiple targets might
23 not show up on those figures.

24 Do you recall that testimony?

25 A. I do.

1 C. A. Batt, Ph.D.

2 Q. And you stated that it had
3 something to do with the dilution that was
4 used in those particular experiments.

5 Do you recall that?

6 A. Yes, I do.

7 Q. Now, assuming you used the
8 dilution regime where the clusters
9 corresponding to droplets having multiple
10 targets that are more apparent.

11 Do you understand that?

12 A. I do.

13 Q. Could you use the techniques
14 that are set forth in connection with
15 Figure 15 to separate those clusters
16 corresponding to droplets with multiple
17 targets from the other clusters?

18 A. I could.

19 MR. SALEN: Objection. Lacks
20 foundation.

21 THE WITNESS: I could, yes.

22 Q. Would a person of ordinary
23 skill in the art know how to do that?

24 A. Yeah. If you are properly
25 motivated and you have overlap because the

1 C. A. Batt, Ph.D.

2 droplets had more than one target, you
3 could certainly alter the intensities of
4 the resulting signals to give you better
5 separation between one, two and one, and
6 two targets.

7 Q. And would a person of ordinary
8 skill in the art have been motivated and
9 found it obvious to use those techniques
10 for that purpose?

11 A. If you're running at a dilution
12 where you had multiple occupancies, you
13 would certainly be able to then separate
14 out, as shown in -- essentially, as an
15 optimization in Figure 15 going from the
16 left panel to the right panel, you could
17 further improve the resolution between
18 clusters, yes.

19 Q. You said someone could have.
20 Is that something someone would have done?

21 A. If for whatever reason you were
22 running at a higher occupancy rate. So,
23 these were done at .006, if I recall
24 correctly. If you run at a higher
25 occupancy rate and you encounter that

1 C. A. Batt, Ph.D.

2 problem, the solution to it would be very
3 obvious.

4 Q. Now, did you present opinions
5 on this in your original declaration?

6 A. I did.

7 Q. Take a look at Exhibit 1002,
8 paragraph 291.

9 A. Yes.

10 Q. Could you briefly summarize
11 what you're stating here in paragraph 291
12 and the related paragraphs in this section?

13 A. So, the clearest example of
14 that in paragraph 291 -- let me just repeat
15 what's written here already -- it says:
16 Over the optimization process, the codes of
17 different analytes are shifted to achieve
18 the benefit of making the assay
19 nondegenerate.

20 So, in this particular case,
21 the degeneracy had to do with existing
22 overlaps between the targets, but the basic
23 methodology whereby they went and optimized
24 the wavelength and intensity to further
25 separate, to improve the resolution, could

1 C. A. Batt, Ph.D.

2 be easily applied to where you can then
3 determine the difference between a droplet
4 having Target Number 1, Target Number 2, or
5 Target Number 1 and 2.

6 Q. Take a look at the Saxonov
7 provisional, Exhibit 1007. You remember
8 you were asked some questions about the
9 table in the Saxonov provisional that had
10 eight populations of droplets for three
11 targets?

12 A. I do.

13 Q. You were asked some questions
14 about how you would distinguish the
15 different combinations of targets that are
16 in the droplet?

17 A. I do.

18 Q. Take a moment and review page
19 5, column 19 to page 6, line 3 of
20 Exhibit 1007, and let me know when you're
21 done.

22 A. I'm done.

23 Q. What is being disclosed in
24 page 5, line 19, to page 6, column 3 of
25 Exhibit 1007 at a high level?

1 **C. A. Batt, Ph.D.**

2 A. So, at a high level -- and I
3 think I referred to this in the previous
4 discussion -- is that what's listed here as
5 targets underlies or -- yeah, underlies a
6 difference -- the separation of those
7 targets based upon wavelength, based upon
8 channels.

9 So, as it says right here, it
10 says: Some targets may be analyzed in one
11 channel, for example, FAM. Other targets
12 may be analyzed in other channels, for
13 example, VIC.

14 **Q. Okay. It also states here, for**
15 **example, an assay for three targets would**
16 **generate eight clusters or populations of**
17 **data separated by intensity.**

18 **Do you see that?**

19 A. I do.

20 **Q. What does that mean?**

21 A. So, basically, with two
22 wavelengths and three different
23 intensities, you can get eight different --
24 including the negative -- being nine. So,
25 you can get eight different targets

1 C. A. Batt, Ph.D.

2 separated by just that, by just two targets
3 and three intensities.

4 Q. Now, did you discuss this in
5 your original declaration?

6 A. I did.

7 Q. Can you take a look at
8 paragraphs 341 and 342 of your original
9 declaration? Take a moment and review
10 paragraphs -- take a moment and review
11 paragraphs 341, 342, and let me know when
12 you're done.

13 A. I'm done.

14 Q. What are you discussing in
15 paragraphs 341 and 342?

16 A. Well, it's the same basic
17 premise that you can detect multiple
18 targets with only a few wavelengths by
19 having different intensities. So, for
20 example, in Figure 10, we're detecting
21 three different targets with two different
22 wavelengths by varying the intensity.

23 Q. Now, Figure 10 shows only the
24 clusters for the targets with one -- let me
25 start again.

1 C. A. Batt, Ph.D.

2 Figure 10 shows only the
3 clusters for the droplets that have a
4 single target, correct?

5 A. That's correct.

6 Q. Now, does the patent also
7 mention the clusters for the droplets with
8 multiple targets?

9 A. Yes.

10 Q. And how does the disclosure --
11 how does your discussion in paragraphs 341
12 and 342 of your original declaration relate
13 to the disclosure on page 5, line 19, to
14 page 6, line 3, of the Saxonov provisional
15 that we looked at?

16 A. So, basically, what we're
17 looking at is multiple targets at different
18 fluorescence wavelengths and different
19 intensities and the combinations thereof.

20 Q. Let me try to ask the question
21 again. We have your discussion of
22 paragraphs 341 and 342.

23 A. Correct.

24 Q. How does that relate to what's
25 in the Saxonov provisional that we looked

1 C. A. Batt, Ph.D.

2 at just a moment ago at pages 5 and 6?

3 A. It's basically, graphically, in
4 Figure 10, presents the same thing that's
5 in Table 4, if I am -- is it Table 4?
6 Well, it's a table with different
7 populations.

8 Q. Is that the table that appears
9 on page 11?

10 A. Correct.

11 Q. And how does that disclosure
12 that's in page 11 of the Saxonov
13 provisional relate at all to the discussion
14 we looked at on pages 5 and 6 of the
15 Saxonov provision? If you want to look at
16 pages 5 and 6 of the Saxonov provisional
17 again, that's fine.

18 A. Basically, pages 5 and 6 of the
19 Saxonov talks about looking at multiple
20 targets based upon two different channels
21 and different intensities, so you generate
22 eight different clusters, which Figure 10
23 is basically the same thing.

24 Q. Is the table basically the same
25 concept as well?

1 C. A. Batt, Ph.D.

2 A. Exactly.

3 MR. WALTER: All right. I
4 don't have any further questions.

5 XXXX

6 CONTINUED EXAMINATION

7 BY MR. SALEN:

8 Q. Just a quick follow-up,
9 Dr. Batt. Just talking about the same
10 portion of your original declaration,
11 Exhibit 1002; paragraph's 341 and then you
12 show Figure 10 from Saxonov there, correct?

13 A. That's correct.

14 Q. But that Figure 10 comes from
15 the Saxonov nonprovisional application,
16 Exhibit 1004, correct?

17 A. Yes, but it's the same basic
18 information.

19 Q. But that figure does not show
20 populations, correct?

21 A. That figure does not show --

22 Q. Eight populations.

23 A. No, figure 10 doesn't show
24 eight different populations.

25 Q. And Figure 10 was not in the

1 C. A. Batt, Ph.D.

2 Saxonov provisional, correct?

3 A. It wasn't as a figure, but the
4 information's the same.

5 Q. And then you have a figure on
6 page 160 under paragraph 342. It says
7 Figure 10 there, correct?

8 A. Correct.

9 Q. And there, you've added in
10 populations that weren't in the original
11 figure from Saxonov, right?

12 A. Right. It's simply, you know,
13 it's -- it is not new data. It's simply
14 the graphical representation of what the
15 multiple populations would look like.

16 Q. Yeah. That's your graphical
17 interpretation, correct?

18 A. Correct.

19 (Page break to accommodate
20 jurat.)

21

22

23

24

25

1 C. A. Batt, Ph.D.

2 Q. Based on your interpretation of
3 Saxonov, correct?

4 A. Based upon relatively
5 straightforward extrapolation.

6 MR. SALEN: I don't have any
7 further questions. Thank you,
8 Dr. Batt.

9 (Whereupon, at 12:10 P.M., the
10 Examination of this Witness was
11 concluded.)

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1	C. A. Batt, Ph.D.		
2	E X H I B I T S		
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4	PREVIOUSLY MARKED EXHIBITS USED		
5			
6	EXHIBIT	EXHIBIT	PAGE
7	NUMBER	DESCRIPTION	
8	Exhibit 1043	Declaration of Carl A.	8
9		Batt, Ph.D. in Support of	
10		Petitioner's Reply to	
11		Patent Owner's Response	
12	Exhibit 1017	Larson Patent Application	30
13		Publication Number US	
14		2011/0250597 and to Larson	
15	Exhibit 1007	Provisional Application	67
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17	Exhibit 1002	Declaration of Carl A.	82
18		Batt, Ph.D. in Support of	
19		Petitioner For Inter Partes	
20		Review	
21			
22	(Exhibits retained by Court		
23	Reporter/Provided to Agency.)		
24			
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(None)	

QUESTIONS MARKED FOR RULINGS	
PAGE LINE QUESTION	
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C. A. Batt, Ph.D.

C E R T I F I C A T E

STATE OF NEW YORK)
 :
COUNTY OF RICHMOND)

I, MARINA DUBSON, a Notary Public for
and within the State of New York, do hereby
certify:

That the witness whose examination is
hereinbefore set forth was duly sworn and
that such examination is a true record of
the testimony given by that witness.

I further certify that I am not
related to any of the parties to this
action by blood or by marriage and that I
am in no way interested in the outcome of
this matter.

IN WITNESS WHEREOF, I have hereunto
set my hand this 9th day of October 2025.



MARINA DUBSON

DECLARATION UNDER PENALTY OF PERJURY

Case Name: Bio-Rad Laboratories, Inc.
vs. California Institute of Technology
Date of Deposition: 10/09/2025

Job No.: 10174233

I, CARL A. BATT, PH.D., hereby certify
under penalty of perjury under the laws of the State of
_____ that the foregoing is true and correct.

Executed this _____ day of
_____, 2025, at _____.

CARL A. BATT, PH.D.

NOTARIZATION (If Required)

State of _____

County of _____

Subscribed and sworn to (or affirmed) before me on
this _____ day of _____, 20__,
by _____, proved to me on the
basis of satisfactory evidence to be the person
who appeared before me.

Signature: _____ (Seal)

1 DEPOSITION ERRATA SHEET
Case Name: Bio-Rad Laboratories, Inc.
2 vs. California Institute of Technology
Name of Witness: Carl A. Batt, Ph.D.
3 Date of Deposition: 10/09/2025
Job No.: 10174233
4 Reason Codes: 1. To clarify the record.
2. To conform to the facts.
5 3. To correct transcription errors.

6 Page _____ Line _____ Reason _____
7 From _____ to _____

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1 DEPOSITION ERRATA SHEET

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22 _____ Subject to the above changes, I certify that the
transcript is true and correct

23 _____ No changes have been made. I certify that the
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