

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD
3

4 FORESIGHT DIAGNOSTICS INC.,) Case No.
5 Petitioner,) IPR2023-00224;
6 vs.) IPR2023-00317
7 PERSONALIS, INC.,)
8 Patent Owner.) U.S. Patent Nos.
9 _____) 11,384,394; 11,408,033
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13 DEPOSITION OF DANIEL S. NORTON
14 Redwood City, California
15 Tuesday, November 21, 2023
16
17
18
19

20 REPORTED BY:
21 Derek L. Hoagland
22 CSR No. 13445
23 JOB No. 6319806
24

25 PAGES 1 - 144

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13 Deposition of DANIEL S. NORTON, taken before Derek L.
14 Hoagland, a Certified Shorthand Reporter for the State
15 of California, commencing at 9:07 a.m., Tuesday,
16 November 21, 2023, at Weil Gotshal & Manges, LLP, 201
17 Redwood Shores Parkway, Redwood City, California 94065.
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1 APPEARANCES:

2

3 COUNSEL FOR PETITIONER

4 NAINI P.C.

5 2632 Wilshire Blvd.

Suite 268

6 Santa Monica, California 90403

7 BY: AMIR NAINI, ESQ.

310.592.3030 |

8 amir@nainipc.com

-- and --

9 IRELL & MANELLA LLP

10 1800 Avenue of the Stars

11 Suite 900

12 Los Angeles, California 90067

13 BY: ANDREW KRAUSE, ESQ. (Appearing Electronically)

14 akrause@irell.com

310.203.7668

15

16 COUNSEL FOR PATENT OWNER

17 KNOBBE MARTENS

18 3579 Valley Centre Drive

19 Suite 300

20 BY: NATHANIEL LUMAN, PH.D., ESQ.

21 858.707.4000

22 nate.luman@knobbe.com

-- AND --

23 IN-HOUSE COUNSEL

24 STEPHEN MOORE

25 stephen.moore@personalis.com

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E X H I B I T S

NUMBER	DESCRIPTION	MARKED
Exhibit 1200	Dan Norton LinkedIn	63
Exhibit 1201	"Tumor-Informed Liquid Biopsies to Transform Oncology Drug Development"	68
Exhibit 1202	NeXT Liquid Biopsy: A High-Performance, Exome-Wide Liquid Biopsy Assay to Study Tumor Dynamics - Broadcast 1 - Xtalks	81
Exhibit 1203	Liquid Biopsies: Reach for the Stars	85
Exhibit 1204	Deelopmental Therapeutics - Molecularly Targeted Agents and Tumor Biopsy	89

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E X H I B I T S (CONTINUED)

EXHIBIT	DESCRIPTION	MARKED
Exhibit 1205	Liquid Biopsy Assays: Beyond Recurrence Detection in Post-Diagnosis Cancer Management	94
Exhibit 1206	Poster Presentations - Proffered Abstracts, June 15, 2022	101
Exhibit 1207	November 20, 2023 Abstract	105

E X H I B I T S (REFERENCED)

Exhibit 2035	Declaration of Dan Norton	9
Exhibit 2001.001	"2022 Top Innovations"	109

1 9:07 a.m. P R O C E E D I N G S

2

3 DANIEL S. NORTON,
4 having first been duly sworn,
5 was examined and testified as follows:
6

7

EXAMINATION

8 BY MR. NAINI:

9 Q. Can you please state your name for the record.

10 A. Yeah. Daniel Scott Norton.

11 Q. And Mr. Norton, you work at Personalis. Is that
12 right?

13 A. I do.

14 Q. And you have submitted a declaration for some
15 inter partes review proceedings on behalf of Personalis.
16 Is that right?

17 A. That's correct.

18 Q. Okay. Have you been deposed before in any other
19 matters?

20 A. I have once before.

21 Q. Once before. How long ago was that?

22 A. Approximately seven, eight years ago, in that
23 timeframe.

24 Q. Okay. Well, I will go over some of the basics.
25 But since you've been deposed before, you probably know

1 these things already.

2 The court reporter is taking down what we speak,
3 so please try not to talk over me or interrupt me. Wait
4 until the end of my questions, and I will wait to the
5 end of your responses before I ask another question.

6 Do you understand that?

7 A. I do.

8 Q. And you understand you are under oath today,
9 just as if you were testifying in any court of law or
10 other proceeding where an oath is required, right?

11 A. I do.

12 Q. And is there any reason that you are aware of
13 why you cannot -- why you would not be able to give
14 truthful and accurate testimony today?

15 A. No.

16 Q. Mr. Norton, did you do anything to prepare for
17 your deposition today?

18 A. Yes, I did.

19 Q. What did you do?

20 A. I reviewed my declaration, I reviewed the
21 exhibits cited in the declaration with my company's
22 attorneys Nate and Steve here.

23 Q. Did you do anything else?

24 A. No.

25 Q. And when you said you reviewed your declaration

1 and the exhibits cited in your declaration with your
2 company's attorneys, Nate and Steve, was that during the
3 meeting?

4 A. Yes.

5 Q. And did you review any documents or do any other
6 preparation for your deposition today outside of that
7 meeting?

8 A. We met yesterday. So we have had two meetings,
9 yesterday and last week. So there were two meetings,
10 but outside of that, no.

11 Q. Okay. So the meeting last week, how long was
12 it?

13 A. The meeting last week was two hours.

14 Q. And other than Nate Luman and Steve --

15 MR. NAINI: I'm sorry. I've forgotten your last
16 name, Steve.

17 MR. MOORE: Moore.

18 BY MR. NAINI:

19 Q. -- Steve Moore, were there any other
20 participants in that meeting?

21 A. No.

22 Q. And did you speak to anyone other than
23 Steve Luman and -- I'm sorry, Nate Luman and Steve Moore
24 to prepare for your deposition today?

25 A. No.

1 Q. And the meeting yesterday, how long was that?

2 A. It was approximately three hours.

3 Q. Mr. Norton, I'm handing you what's been marked
4 as Personalis Exhibit 2035.

5 (Referencing Exhibit 2035.)

6 MR. NAINI: And case numbers IPR2023-00224 and
7 IPR2023-00317. Do you recognize this document?

8 THE DEPONENT: I do.

9 BY MR. NAINI:

10 Q. This is the declaration that you were
11 referencing earlier, right?

12 A. Correct.

13 Q. And it's a declaration that was submitted on
14 your behalf in two IPR proceedings.

15 Do you see that?

16 A. I do.

17 MR. LUMAN: Objection. Mischaracterizes the
18 document.

19 BY MR. NAINI:

20 Q. And it's a declaration that was submitted in the
21 two IPR proceedings that are listed in -- on the face of
22 the document that I just recited, right?

23 A. Yes.

24 Q. If you turn to the last page, you see that it is
25 dated October 3rd, 2023, and it has what appears to be

1 your signature.

2 Do you see that?

3 A. I do.

4 Q. Is that your signature?

5 A. It is.

6 Q. And can you tell me what the process was for the
7 prep -- strike that. Let me rephrase it.

8 Describe for me your process in preparing this
9 declaration.

10 A. The process was a collaboration between myself
11 and my company's attorneys here, Nate and Steve, where I
12 provided inputs, edits. And it accurately reflects my
13 perspective.

14 Q. Did you speak with anyone other than attorneys
15 for the purpose of preparing your declaration?

16 A. No.

17 Q. Looking again at the front page of the exhibit,
18 if you turn it over, you see there are two patent
19 numbers listed there, and I will just read them for the
20 record.

21 The -- right under the case numbers, it says US
22 patent numbers 11,384,394 and 11,408,033. Do you see
23 those?

24 A. I do.

25 Q. And I'm going to refer to those, just for short,

Page 10

1 as the '394 patent and the '033 patent. Is that -- will
2 you understand if I do that?

3 A. Yes.

4 Q. Okay. Have you reviewed the '394 patent?

5 A. Not in great detail.

6 Q. Have you reviewed it at all?

7 A. I have likely looked at the document, but
8 haven't analyzed it or anything like that.

9 Q. And when you say "likely" -- strike that.
10 When was the last time that you recall seeing
11 the '394 patent?

12 A. It's been so long, I can't say when that was.

13 Q. Did you review the '394 patent for the purpose
14 of preparing your declaration?

15 A. No.

16 Q. Was the last time you reviewed the '394 patent
17 more than six months ago?

18 A. I don't remember.

19 Q. Was it more than three months ago?

20 A. I don't remember.

21 Q. Did you review it in September 2023?

22 A. I don't remember.

23 Q. Now, you signed this declaration on October 3rd
24 of 2023, right?

25 A. I did.

1 Q. Did you review the '394 patent in October
2 of 2023?

3 A. I don't remember.

4 Q. So you could have reviewed it on October 2nd
5 of 2023. Is that your testimony?

6 A. It's possible. I could have looked at it then
7 or any other time before that or after that, but never
8 any great detail. I'm not trained in looking at
9 patents.

10 Q. No. I'm just wondering when you saw a document,
11 not what you're trained in at this point.

12 A. Sure.

13 Q. But you simply don't remember when the last time
14 was that you looked at the '394 patent, right?

15 A. That's correct.

16 Q. But you testified that it was -- it was -- it
17 was a long time ago?

18 MR. LUMAN: Objection. Mischaracterizes
19 testimony.

20 BY MR. NAINI:

21 Q. Well, was it a long time ago that you first saw
22 the '394 patent?

23 A. I don't --

24 MR. LUMAN: Objection. Foundation.

25 THE DEPONENT: I don't recall when it was.

1 BY MR. NAINI:

2 Q. You simply do not recall when the first time was
3 that you saw the '394 patent?

4 A. That's correct.

5 Q. And you don't remember the last time it was that
6 you saw the '394 patent?

7 A. That's correct.

8 Q. And you did not review the '394 patent for
9 purposes of preparing your declaration?

10 MR. LUMAN: Asked and answered.

11 THE DEPONENT: That's correct.

12 BY MR. NAINI:

13 Q. Same question as for the '033 patent. Do you
14 recall the first time you saw the '033 patent?

15 A. I do not recall.

16 Q. Do you recall when the last time was that you
17 saw the '033 patent?

18 A. I do not recall.

19 Q. Did you review the '033 patent for the purposes
20 of preparing your declaration?

21 A. I did not.

22 Q. Have you reviewed any other Personalis patents
23 for the purposes of -- strike that.

24 Have you reviewed any patents at all for the
25 purposes of preparing your declaration?

1 A. No.

2 Q. Now, you said you -- I just want to make sure I
3 understand your testimony.

4 You do recall, at some point, reviewing the '394
5 patent, right?

6 A. I recall looking at patents in general. I can't
7 be specific about which ones I looked at.

8 Q. I see. Did you look at more than two patents?

9 A. I can't recall.

10 Q. Do you recall if they were Personalis patents
11 that you looked at?

12 A. Yes.

13 Q. Were they Personalis patents that you looked at?

14 A. Yes.

15 Q. What was the reason you were looking at
16 Personalis patents?

17 MR. LUMAN: I will caution the witness not to
18 reveal any attorney-client confidential information.
19 You can answer the question if you can do it without
20 revealing attorney-client privileged information.

21 THE DEPONENT: I can't remember specifically the
22 reason why I looked at the patents, but I do know that
23 at one point some of them were made available to me.

24 BY MR. NAINI:

25 Q. Who made them available to you?

1 A. I don't recall.

2 Q. Was it an attorney?

3 A. I don't recall.

4 Q. Was it a non-attorney?

5 A. I don't recall.

6 Q. You said that at one point some of them, meaning
7 patents, were made available to you. So you didn't --
8 you didn't seek to obtain the patents on your own. Is
9 that right?

10 MR. LUMAN: Objection. Mischaracterizes
11 testimony, and form.

12 MR. NAINI: Well, I am not trying to
13 mischaracterize anything, Mr. Norton. I am just
14 wondering what the answer is to that question.

15 BY MR. NAINI:

16 Q. So did you seek out the patents that you recall
17 looking at on your own?

18 MR. LUMAN: Same objections.

19 THE DEPONENT: I don't remember specifically.

20 BY MR. NAINI:

21 Q. Do you look at patents in the -- in the normal
22 course of performing your -- your job responsibilities
23 at Personalis?

24 A. I do not.

25 Q. If I could have you turn to what's marked as

1 page 1 of your declaration, Exhibit 2035. It's the
2 fourth page of the document. And you see that the
3 paragraph numbers are numbered in your declaration?

4 A. I do.

5 Q. Okay. I'm just going to refer to those numbers
6 at times, just so we can quickly go to parts of the
7 declaration that -- that I want to discuss.

8 And in paragraph 2, you state that:

9 "This declaration discusses examples of industry
10 praise for Personalis's NeXT Personal assay that have
11 been provided by The Scientist Magazine, Precision
12 Medicine Online, and GenomeWeb.

13 How did you decide to discuss examples of
14 industry praise for Personalis's NeXT Personal assay, as
15 opposed to other Personalis assays?

16 A. These are three examples of industry praise
17 about NeXT Personal, and in my role, I am a product
18 manager for NeXT Personal.

19 Q. I see.

20 Are you a product manager for any other
21 products?

22 A. Yes.

23 Q. What other products?

24 A. NeXT Liquid Biopsy.

25 Q. Any other products?

1 A. No.

2 Q. And why did you not discuss NeXT Liquid Biopsy
3 in your declaration?

4 A. That was not a focus for these purposes.

5 Q. Why was it not a focus for these purposes?

6 A. Because the -- this deposition is focused on
7 NeXT Personal and not on NeXT Liquid Biopsy.

8 Q. Can you describe NeXT Liquid Biopsy for me?

9 A. Yes. NeXT Liquid Biopsy is a whole exome-based
10 approach to sequencing cell-free DNA.

11 Q. And a whole exome-based approach, can you
12 explain a bit more what -- what that approach is?

13 A. Yes. So we -- with NeXT Liquid Biopsy, we
14 sequence plasma-derived DNA, also referred to as
15 cell-free DNA, and there are different, you know, sizes
16 of panels, if you will, the largest being the whole
17 genome. You could build a panel that is focused on
18 sequencing just regions of the -- the coding regions of
19 the whole genome, which is also known as the exome, and
20 then there are more targeted approaches as well, that
21 are smaller in scale and footprint size than the exome.

22 Q. I see.

23 How -- how large is the exome as compared to the
24 whole genome?

25 A. It's approximately 2 percent. 1 to 2 percent is

1 estimated of the whole genome, is the exome.

2 Q. And so the NeXT Personal assay, is that a whole
3 genome sequencing approach?

4 A. There is a component of the NeXT Personal assay
5 that is a whole genome-based approach, specifically of
6 the tissue, not of the cell-free DNA.

7 Q. Got it. So there's whole genome sequencing done
8 of the tissue for the NeXT Personal assay?

9 A. That's correct.

10 Q. But for the NeXT Liquid Biopsy, it's a -- it is
11 an exome sequencing approach of tissue. Is that right?

12 A. No.

13 Q. No. Can you explain what I got wrong?

14 A. Yeah. Of the plasma.

15 Q. Of the plasma?

16 A. It sequences the plasma, exome of the plasma.

17 Q. Got it. So I'm just under -- I'm just trying to
18 understand the differences between the Personalis
19 NeXT Personal assay and the Personalis NeXT Liquid
20 Biopsy, and what I think I got so far is that the Liquid
21 Biopsy, the NeXT Liquid Biopsy assay, is a whole
22 exome-based approach, and that's in contrast to the
23 whole genome sequencing of the tissue sample for the
24 NeXT Personal assay?

25 MR. LUMAN: Objection. Mischaracterizes

1 testimony and form.

2 THE DEPONENT: The -- there are more components
3 to the NeXT Personal assay than just whole genome
4 sequencing of the tissue. I should also mention we do
5 whole genome sequencing of the tumor tissue and of the
6 company normal, or match normal, for that patient. So
7 we do whole genome sequencing for -- for both of those
8 different types of samples. So when I say tissue, I
9 usually mean the tumor and the normal together.

10 BY MR. NAINI:

11 Q. Okay. And what you just talked about, that's
12 the NeXT Personal assay?

13 A. That is good. That is the up-front. That's not
14 the entire part of the NeXT Personal assay.

15 Q. Okay. So that's the up-front, you said, of the
16 next personal assay, what's the next part of the NeXT
17 Personal assay?

18 A. Sure. So we -- the next thing that we do after
19 we do the whole genome sequencing of the tumor tissue
20 and the normal, is we assess bioinformatically the
21 somatic variants that are found that are tumor derived
22 from the -- the tissue. And from that list of somatic
23 variance, we use bioinformatic algorithms to identify up
24 to 1800 total targets that we will then go on to use to
25 build a targeted panel.

1 Q. Okay.

2 A. During that design process, if -- may I

3 continue?

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

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[REDACTED]

[REDACTED]

Q. Now, the panel that you just talked about in the
NeXT Personal assay, physically what is that? Is
that -- physically, what is that?

A. It is a tube of capture probes.

Q. And what do you mean by capture probes?

A. Short sequences of DNA.

Q. And it's just a tube, or are they floating free?
Are they attached to something?

A. I'm not sure specifically.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Q. Right. And when you get the package, what is in
the package?

A. Well, I'm not in the accessioning group, so I

1 have actually never seen what is in the package.

2 Q. Mm-hmm.

3 A. But --

4 Q. But -- but you testified that the panel is a --
5 is a tube of capture probes, right?

6 A. Yes.

7 Q. I just want to understand what you mean by that.

8 A. Yeah. So I believe it's a small conical tube or
9 a -- you know, a smaller tube that contains the capture
10 probes.

11 Q. Okay. And do you know if the capture probes
12 are -- are the capture probes in a solution in that
13 tube?

14 A. I believe that they are.

15 Q. And do you know, are they free floating in that
16 solution or not?

17 A. I don't know specifically.

18 Q. And then how is the panel then used in the NeXT
19 Personal assay?

20 A. The panel is then used to enrich for the
21 targeted regions for which they were designed. And so
22 one of the steps when we're working with plasma is
23 library preparation. And so this is a preparation step
24 for the cell-free DNA before sequencing, but before
25 sequencing, we enrich for those specific targeted areas

1 as designed -- as designed into the panel.

2 Q. And -- and I want to understand what you mean by
3 "enrich."

4 A. Uh-huh.

5 Q. When you say the panel is used to enrich for the
6 targeted regions for which they were designed --

7 A. Mm-hmm.

8 Q. -- what do you mean by "enrich" in -- in that
9 answer?

10 A. So we are specifically physically pulling out --
11 as I understand, pulling out these targeted pieces of
12 DNA that are hybridized by the capture probes.

13 Q. And how does the assay physically pull out the
14 targeted pieces of DNA that are hybridized by the
15 capture probes?

16 MR. LUMAN: Objection. Form.

17 THE DEPONENT: I don't know the specific
18 technology behind that, that we use at Personalis.

19 BY MR. NAINI:

20 Q. Do you know anything about the technology behind
21 that, that you use at Personalis?

22 A. Clarifying question?

23 Q. Yeah. You said that you don't know the specific
24 technology, and I want to understand what you mean when
25 you used the word "specific" there. What do you

1 understand?

2 A. Oh, what I do understand is that there is a
3 physical, often referred to as a, quote/unquote,
4 pull-down that occurs and -- yeah.

5 Q. So in that pull-down, are the capture probes
6 immobilized on some sort of substrate so that they can
7 be used to pull down their targets?

8 A. I believe so, yes.

9 Q. So for the Personalis NeXT Personal assay, when
10 was that first introduced commercially?

11 A. Approximately in the late 2021 timeframe.

12 Q. And for the other assay for which you said you
13 were a product manager, the NeXT Liquid Biopsy assay,
14 same question. When was that first introduced
15 commercially?

16 A. I don't know specifically. So a range would be
17 in the 2019 to 2020 timeframe.

18 Q. Do you know when the development of the
19 Personalis NeXT Personal assay began?

20 A. I don't know specifically.

21 Q. Do you recall if you were at Personalis when the
22 development began for the Personalis NeXT Personal
23 assay?

24 A. I don't recall. Yeah.

25 Q. So it may have began before or it may have began

1 after you joined the company.

2 Is that your testimony?

3 A. That's -- that's correct. That sounds...

4 Q. If we can turn to paragraph 3 of your
5 declaration, Exhibit 2035. It starts:

6 "I am director of product management at
7 Personalis, Inc. I have held this position from
8 August 2023 to present."

9 What are your job responsibilities as director
10 of product management?

11 A. So my job is varied and consists of several
12 different areas. One area is strategic in nature.
13 Another is tactical. Another area is bringing new
14 products to market. Another area is on market product
15 management. And there's also an element of people
16 management. There are elements of market analysis,
17 competitive analysis, going to conferences, giving
18 talks. There are responsibilities for giving
19 presentations to prospective and/or current customers in
20 the biopharma side, also on the diagnostic side or
21 clinical segment side.

22 Q. Is it fair to say that for your job
23 responsibilities, it's important for you to know about
24 the technical details of the Personalis assays that
25 you're talking to the world about?

1 A. I would say, to a certain extent, yes.

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11 Q. And by sensitivity -- can you describe to me
12 what you mean by sensitivity?

13 A. Sure. There are two measurements of
14 sensitivity. There is analytical sensitivity and there
15 is also clinical sensitivity.

16 Q. Okay. What is analytical sensitivity?

17 A. Analytical sensitivity is the number of true
18 positives positives out of total positives, actual
19 positives, that are detected in an analytical
20 experiment.

21 Q. As opposed to false positives?

22 A. As opposed to false positives.

23 MR. LUMAN: Objection. Form.

24 BY MR. NAINI:

25 Q. And clinical sensitivity, what does that mean?

1 A. So instead of -- instead of, you know, an
2 analyte floating in a tube of plasma, clinical
3 sensitivity is more a measurement of the number of, say,
4 cancer patients that are known to be cancer positive
5 that are detected by the assay.

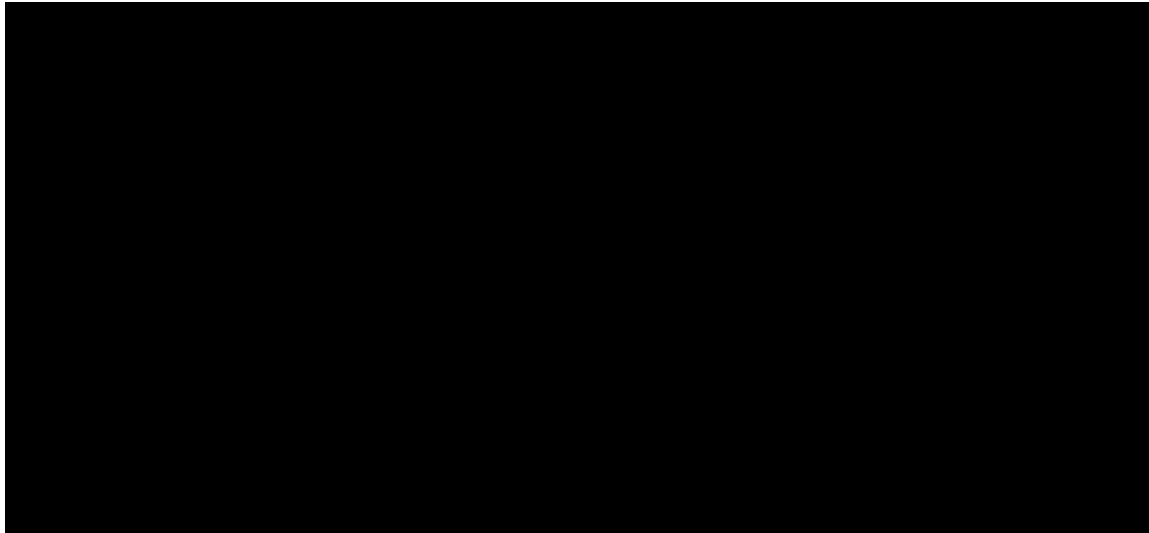
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23 BY MR. NAINI:

24 Q. Why is sensitivity a very important metric?

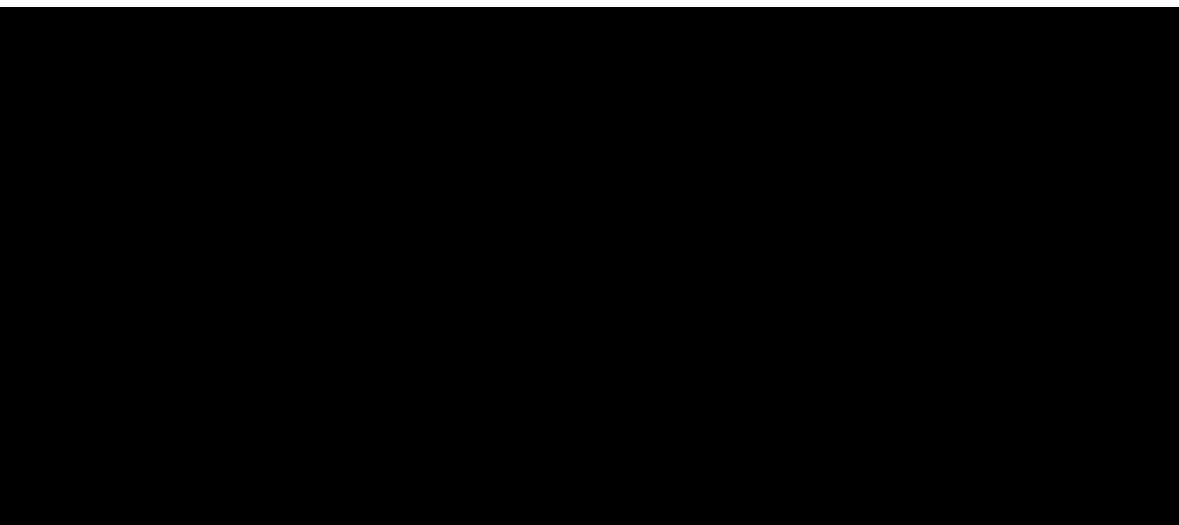
25 A. Sensitivity is an important metric because it is

1 often found in the literature that there is a relatively
2 high rate of false negative detections. So there are
3 folks that are interested in decreasing the false
4 negative rate and, therefore, are interested in high --
5 high-sensitivity assays.

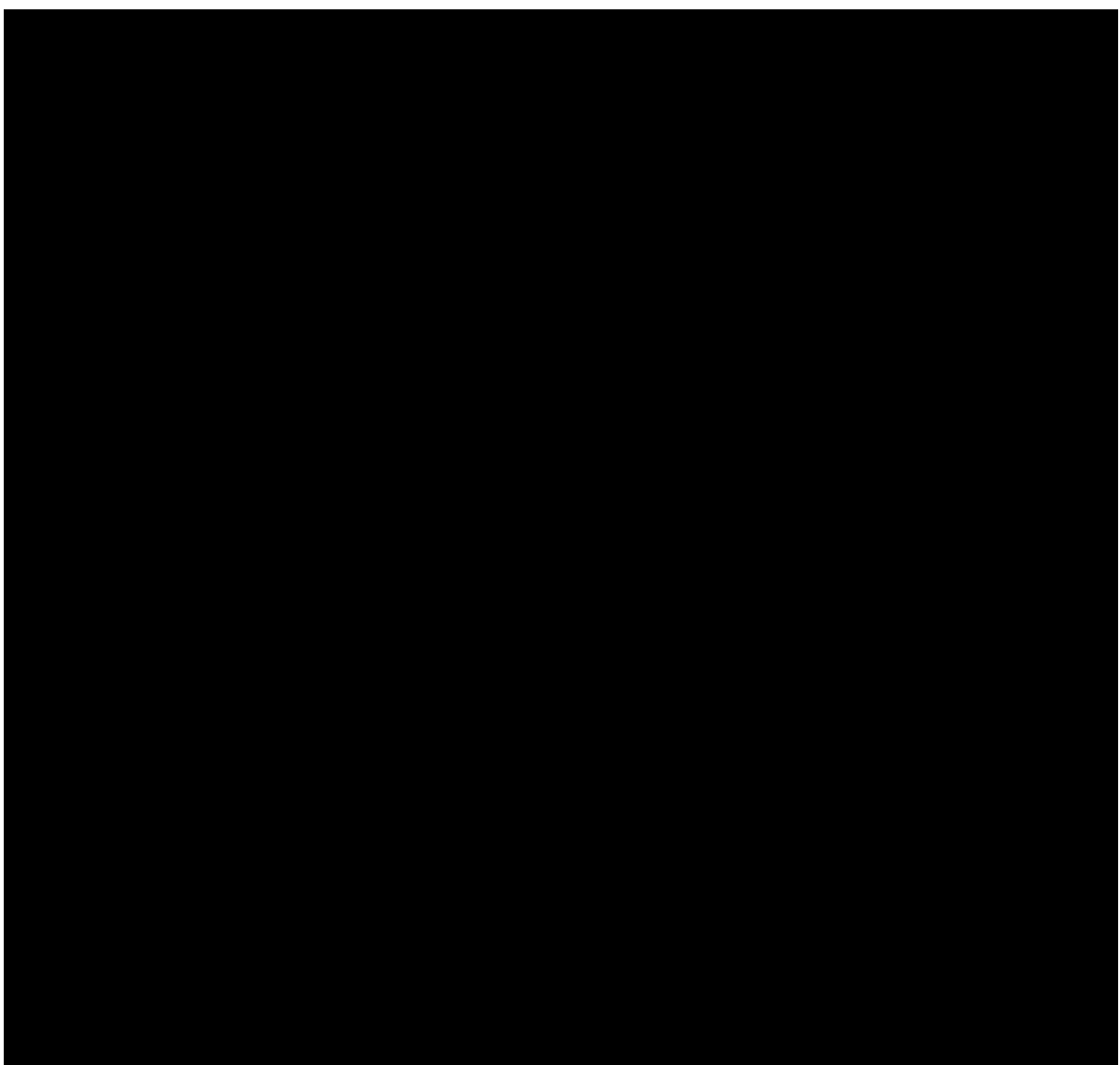


14 Q. What's the sensitivity of -- of the Personalis
15 NeXT Personal assay currently?

16 A. Our limit of detection is 1 to 3 parts per
17 million.



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Q. The older generation MRD tests that you're referring to, are these older generation Personalis tests?

A. No.

Q. What are they, then?

A. Other offerings from other companies in the marketplace.

Q. Can you give me any examples?

1 A. Sure. One example is a solution called
2 Signatera by a company called Natera.

3 Q. Yeah, they're over there.

4 Sorry. My comment was just that the Natera
5 building is visible outside the -- outside the window.
6 So it was humorous, to me at least.

7 What other examples?

8 A. Another example would be a solution called
9 Radar. And the company that offers Radar is called
10 Inivata, which is actually purchased now by NeoGenomics.

11 Q. And any other examples of older generation MRD
12 tests?

13 A. There -- yes. I would say that a product called
14 personalized cancer monitoring, also known as PCM, was
15 developed by Archer and now is owned by Invitae is
16 another example of an older generation MRD technology.

17 Q. Okay. Any other examples?

18 A. No.

19 Q. Okay. So that's all you recall, sitting here
20 today, for the older generation MRD tests that you
21 were -- that you were referring to?

22 A. Yes.

23 Q. So what were the limits of detection for those
24 tests? Do you remember any of the limits of detections
25 for any of those tests?

1 MR. LUMAN: Objection. Form.

2 THE DEPONENT: I do.

3 BY MR. NAINI:

4 Q. What were they?

5 A. In the metric using metric of parts per million,
6 Natera is 100 parts per million, or I should say
7 Signatera specifically is 100 parts per million.
8 Recently, there was a paper that was put out by Archer,
9 or Invitae, I should say now, and I believe they
10 reported as low as 80 parts per million. Those are the
11 two that I recall off the top of my head.

12 Q. Okay. So -- so the comparison, then, of the
13 Personalis NeXT Personal assay, you know, just to
14 summarize what I think you told me, was that the
15 Personalis NeXT Personal assay has a limited detection
16 in the 1 to 3 parts per million range, whereas Natera's
17 Signatera test was about 100 parts per million. It's
18 approximately a hundredfold less sensitive. And the
19 Invitae test that you talked about was in the
20 neighborhood of 80 parts per million. You know, again,
21 you know, doing the math in my head, you know, almost a
22 hundredfold.

23 MR. LUMAN: Objection. Mischaracterizes the
24 testimony. Form.

25 ///

1 BY MR. NAINI:

2 Q. Do you -- do you agree with what I just said?

3 A. I agree that we are up to 100 times -- up to 100
4 times more sensitive than some of the older generation
5 MRD technologies.

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22 Q. What's the sensitivity of the C2i assay?

23 A. I don't know -- I don't remember specifically,
24 but I believe it's in the range of 50 PPM.

25 Q. And can you recall any other higher

1 sensitivity -- higher sensitivity assays?

2 A. Yes. Haystack is another company that claims
3 higher sensitivity.

4 Q. And what sensitivity do they claim?

5 A. They claim as low as 1 part per million.
6 However, they put, to achieve 1 part per million --
7 there are caveats when we're talking about, you know,
8 achieving a specific limit of detection and optimizing
9 sensitivity, such as input amounts and number of
10 molecules, shedding rates, within the tube of blood.

11 Q. And you seem somewhat skeptical about the
12 Haystack sensitivity claim, then. In practice, do you
13 believe in the field Haystack test is achieving not as
14 low as 1 parts per million sensitivity?

15 MR. LUMAN: Mischaracterizes the testimony, and
16 form.

17 THE DEPONENT: I have actually never seen
18 analytical data from Haystack, so all I see is what they
19 claim on their website.

20 BY MR. NAINI:

21 Q. I see. So since you haven't seen data, you --
22 you want to reserve judgment on how and if they can
23 achieve that sensitivity. Am I understanding you
24 correctly?

25 A. Yes. And the conditions for which they can

1 achieve a sensitivity like that.

2 Q. And you think those conditions aren't realistic,
3 essentially, right?

4 MR. LUMAN: Objection. Mischaracterizes his
5 testimony.

6 THE DEPONENT: I don't know if they are
7 realistic or not.

8 BY MR. NAINI:

9 Q. It is more of a, you know, show me kind of
10 approach to it, rather than --

11 MR. LUMAN: Objection to form.

12 BY MR. NAINI:

13 Q. -- rather than tell me?

14 I just want to understand what the source of
15 skepticism is.

16 A. It's a show me rather than tell me, yes.

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23 Q. And what's the sensitivity for the Foresight
24 assay?

25 A. I believe it is a -- a range, at least on --

1 from what I saw at a poster at AACR, which is an
2 industry conference, a yearly industry conference,
3 earlier this year, it showed a wide range of LODs.

4 Q. What was the range?

5 A. I believe it was approximately 1 PPM to 80 PPM,
6 somewhere in that range.

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10 Q. So was there a predecessor to the Personalis
11 NeXT Personal assay that was lower sensitivity?

12 A. Not that I'm aware of.

13 Q. Okay. So essentially, the NeXT Personal assay
14 was the first Personalis assay of its kind?

15 A. I believe so.

16 Q. Is -- what's the sensitivity of the NeXT Liquid
17 Biopsy assay?

18 A. That is a -- there is a varied sensitivity to
19 that. So the technology -- the readout isn't the same
20 as the MRD for NeXT Personal. So in NeXT Liquid Biopsy,
21 we're reporting out on specific variance and their
22 allele frequencies. And so we actually provide two
23 different limitive detections. One is in our boosted
24 region, which is a -- an aspect or a feature of the
25 assay, approximately 0.5 percent allele frequency across

1 those variants in the boosted region. In the
2 non-boosted region, if -- it's 1 percent is our limit of
3 detection.

4 Q. Is -- for the next -- strike that.

5 For the NeXT Liquid Biopsy assay, is -- what's
6 the market? What's the patient population or the -- or
7 the problem that that assay is targeted towards?

8 A. The -- the use of NeXT Liquid Biopsy is a -- it
9 is a translational tool, meaning it's research or
10 exploratory. It's not used in clinical care. It's not
11 orable (sic) by doctors. Some of the uses that we have
12 seen with NeXT Liquid Biopsy are understanding temporal
13 and spatial heterogeneity, understanding de novo
14 mutations that may arise in response to therapeutic
15 pressure, looking at specific markers or mutations as
16 endpoints in a trial, for example. Again, all
17 exploratory. Those are some examples.

18 Q. So -- so the customers are biopharmaceutical
19 companies to use the assay in their research and
20 development? Am I understanding that right?

21 A. That's correct.

22 Q. Are there other types of customers for the NeXT
23 Biopsy assay?

24 A. There are no other types of customers for the
25 NeXT Liquid Biopsy assay.

1 Q. So let's turn to the NeXT Personal assay.
2 What's the -- what's the commercial target audience for
3 that?

4 A. Well, there are essentially two different
5 segments that we sell the NeXT Personal assay into. The
6 first segment is the biopharma segment. It is -- the
7 second segment is the clinical diagnostic segment. And
8 that is relatively new.

9 Q. All right. By relatively new, what do you mean?

10 A. We've just launched a laboratory-developed test
11 version of NeXT Personal in an early-access format.

12 Q. When did that happen?

13 A. That was last month.

14 Q. So that would be October of 2023?

15 A. That's correct.

16 Q. And prior to that, there was no clinical or
17 diagnostic uses that you were selling the assay -- the
18 NeXT Personal assay for, right?

19 A. Correct.

20 Q. And so in that first category that you talked
21 about, the biopharmaceutical company category, can you
22 explain to me what the NeXT Personal assay is or was
23 used for in that category?

24 A. Yes. In the biopharmaceutical category, the
25 assay is marketed as RU0, research use only. And so in

1 a research use only, there are varied areas of interest.
2 One is mostly retrospective in nature. One might be
3 using -- using an MRD assay as an enrollment tool for a
4 trial, retrospectively, of course. They're not using
5 it -- you know, I'm not going to use this result to
6 enroll somebody, but if I had used this tool enroll
7 somebody, would that benefit the patient population?

8 Another, I think, use is looking at therapy
9 response. Another key use is using -- again, this is
10 all in a research-use-only manner.

11 Q. And -- and when you say "research-use-only
12 manner," what do you mean by that? Is it -- for
13 example, do you mean that the -- the NeXT Personal test,
14 when it's being used for research use only, the results
15 aren't being used to -- to make clinical decisions in --
16 by the customers?

17 MR. LUMAN: Objection. Mischaracterizes his
18 testimony, and form.

19 THE DEPONENT: That's correct.

20 Another -- if I could finish my answer.

21 MR. NAINI: Yes, please.

22 THE DEPONENT: Another answer -- another use
23 might be looking at (ct)DNA as a surrogate endpoint in a
24 trial. So instead of using common clinic -- you know,
25 standard of care endpoints, which is usually imaging and

1 measured by resist, they might look at (ct)DNA to see if
2 there's an opportunity to use that as an endpoint
3 marker.

4 Outside of those three large applications, we
5 also have folks that are interested in just the
6 analytical performance of the NeXT Personal RUO assay.
7 So they derive contrived samples to assess the
8 performance, the analytical performance of the assay.

9 BY MR. NAINI:

10 Q. Why are they assessing the analytical
11 performance of the assay?

12 A. I think it goes back to what was said earlier,
13 which is a show me rather than tell me.

14 Q. And what's the ultimate purpose, then? Are they
15 simply publishing results so that they can say, this is
16 how the assay performed, or do -- are they doing it for
17 purposes of then using it for some other reason in the
18 future if it performs well enough?

19 MR. LUMAN: Calls for speculation.

20 THE DEPONENT: I don't know their motives in
21 many cases.

22 BY MR. NAINI:

23 Q. Why do you think they're doing it?

24 MR. LUMAN: Same objection.

25 THE DEPONENT: I think that there are -- there's

a wide array of reasons, and one reason may be that they do comparative analysis versus other assays, might be one.

Another one might be that they have used other assays and understand their detection rates in the samples that they have and want to see if they can increase their detection rates with a more sensitive assay. That's what I might speculate.

MR. NAINI: This might be a good time for a break, before I start a new line of questions.

MR. LUMAN: Okay.

THE DEPONENT: Sure.

(A recess transpires.)

BY MR. NAINI:

Q. Mr. Norton, turning back to your declaration, again in paragraph 2, you said that:

"This declaration discusses examples of industry praise for Personalis's NeXT Personal assay."

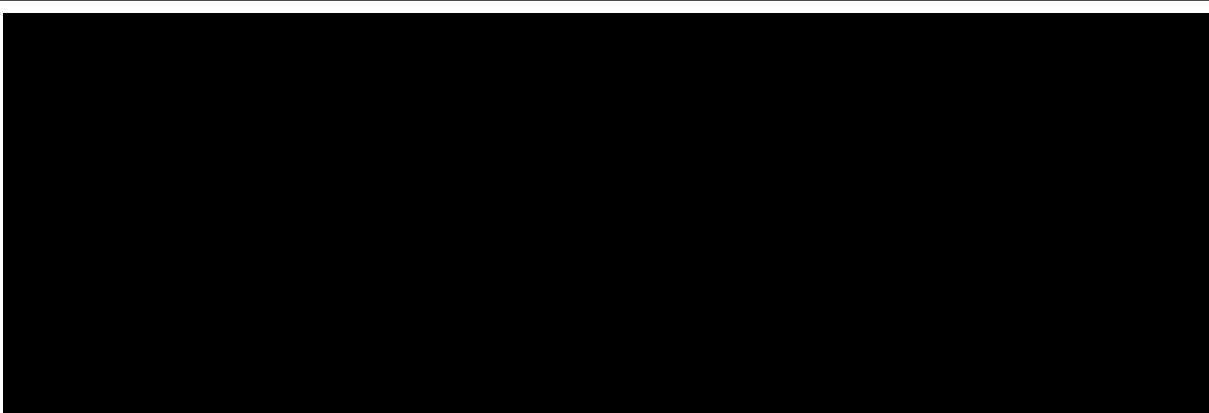
Are you aware of any examples of industry criticism of Personalis's NeXT Personal assay?

A. I am not.

Q. Has anyone in the industry communicated any criticism of the Personalis NeXT Personal assay to you?

A. Not that I recall.

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Q. Are you aware of any criticisms of the performance metrics of the Personalis NeXT Personal assay?

A. No.



MR. LUMAN: And I just want to pause. I think we're going to need to -- if you're going to continue on this line of questioning, we are going to need to mark this transcript confidential. And, actually, we do need to mark the transcript confidential. And we are going to have to do a motion to seal, and because you're going to be submitting this transcript, you'll have to do the motion to seal. But these are confidential questions that we don't want to be made public, and that's the reason why the transcript needs to be marked confidential.

MR. NAINI: Okay. Now, I assume you're talking about some of the questions since -- since the break?

1 MR. LUMAN: Yes, since the break. Correct.

2 MR. NAINI: And I'm happy to -- happy to

3 consider your suggestion. I -- I don't think anything

4 confidential has been disclosed yet. I will be talking

5 about third parties for the most part. And so maybe we

6 can revisit this question.

7 MR. LUMAN: Well, I mean, the questions have

8 been --

9 MR. NAINI: To --

10 MR. LUMAN: -- very specific on --

11 MR. NAINI: To the extent --

12 MR. LUMAN: I'm talking right now.

13 MR. NAINI: Hold on. I'm not done.

14 MR. LUMAN: I'm not done, either.

15 MR. NAINI: I'm not done.

16 MR. LUMAN: This is dealing with very

17 specific --

18 MR. NAINI: To the extent --

19 MR. LUMAN: -- questions about --

20 MR. NAINI: Mr. Luman, I am not finished with --

21 MR. LUMAN: I'm not finished, either.

22 MR. NAINI: -- my statement.

23 MR. LUMAN: You keep interrupting me.

24 MR. NAINI: I'll give you a chance after I --

25 MR. LUMAN: So I will speak first, because I'm

1 going to talk that you have been asking very specific
2 questions --

3 MR. NAINI: I -- I -- you -- you spoke at
4 length.

5 MR. LUMAN: -- and so --

6 MR. NAINI: And I'm not done responding to it.

7 MR. LUMAN: Well, I'm not done either.

8 MR. NAINI: Now, to -- to the --

9 MR. LUMAN: There is an issue here that --

10 MR. NAINI: I disagree with respect to the
11 confidentiality.

12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]

17 MR. NAINI: Okay. Now, to the extent we can
18 reach agreement on that, I think a simple redaction is
19 going to take care of the problem. And -- and we can
20 work with you on that to keep this as simple as
21 possible, because I think that this is -- this is a
22 tempest in a teapot, quite frankly. But let's table it
23 for now. We are all family in the room right now.
24 There is no one from Foresight here. And -- and we can
25 deal with these issues in due course, as they say.

1 MR. LUMAN: Sure. And this will need to be
2 treated confidentially.

3 MR. NAINI: Again, I don't agree, and we can
4 deal with it in due course. Today you don't see a
5 problem with what has just been discussed on the
6 transcript with respect to the people who are in the
7 room. Am I correct?

8 MR. LUMAN: No. That's incorrect. I believe
9 that the transcript has got to be confidential because
10 you have asked questions about internal things.

11 MR. NAINI: That's not my question. My question
12 is, is there a problem with respect to the attendees of
13 this deposition, from your perspective?

14 MR. LUMAN: The problem would be any public
15 disclosure of the -- the questions and answers that have
16 taken place after the break.

17 MR. NAINI: And up until right now, there's been
18 no public disclosure, correct?

19 MR. LUMAN: That's correct?

20 MR. NAINI: Okay. I just want to make that
21 clear.

22 And so any potential disclosure beyond the
23 attendees and participants in this deposition is what we
24 are talking about, and I'm happy to work with you on
25 that.

1 MR. LUMAN: Correct. We're talking about filing
2 a public transcript on the PTAC website that would be
3 available to the general public. That needs to be
4 placed under a motion to seal.

5 MR. NAINI: And, again, my position is, we can
6 do it without a motion if we reach agreement on
7 redactions, because there may be portions of the
8 transcript that you want redacted that we don't care to
9 use.

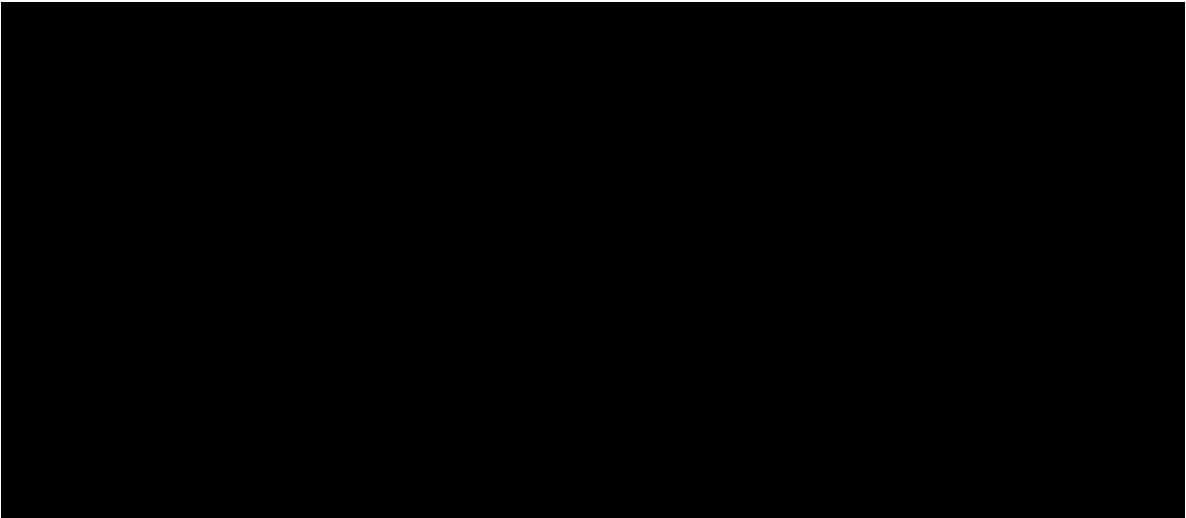
10 MR. LUMAN: We will have to address that in the
11 future.

12 MR. NAINI: Okay. Exactly. We will deal with
13 it in due course.

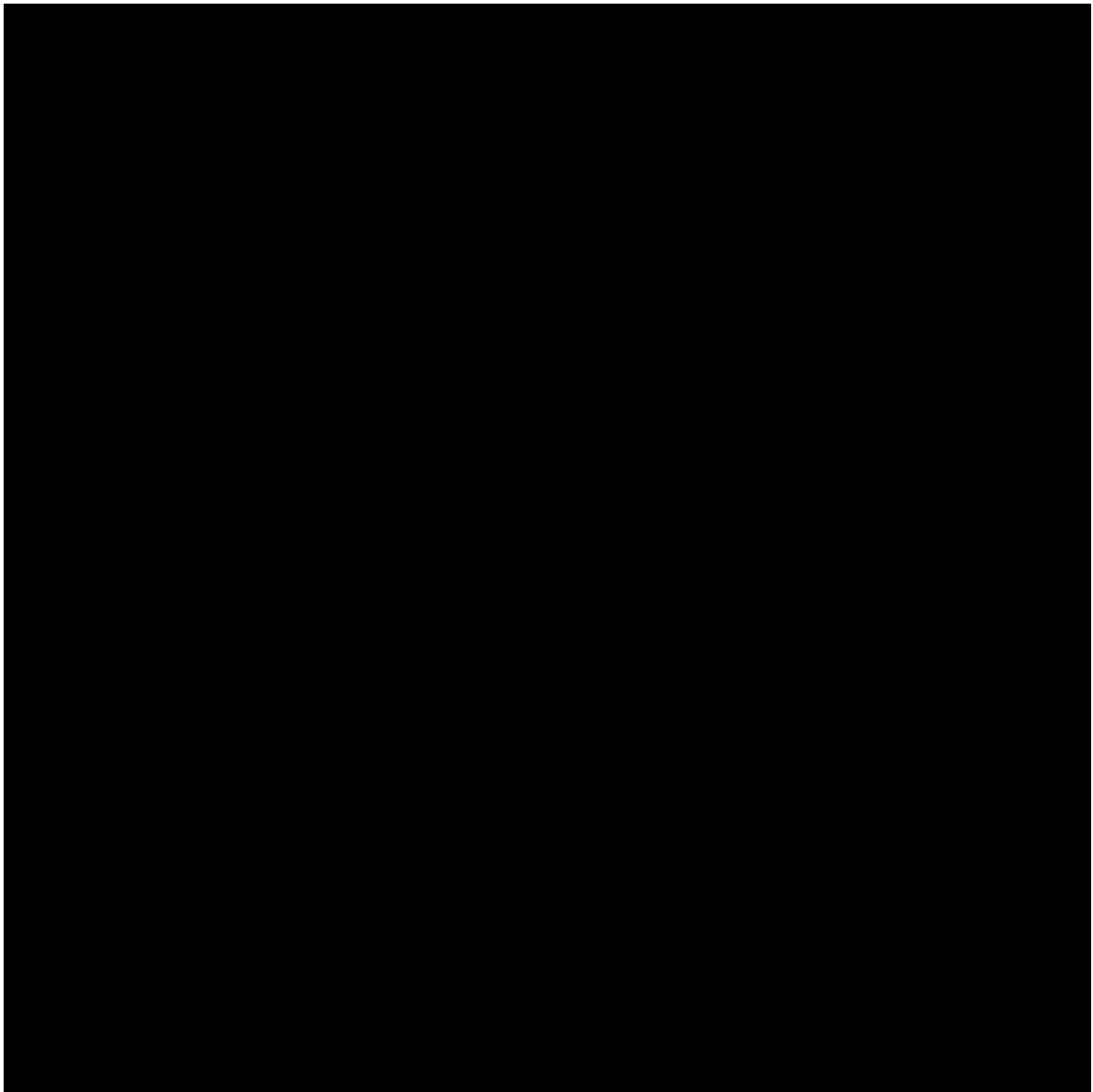
14 All right. So getting back to your deposition,
15 Mr. Norton.

16 THE REPORTER: There is a pending question.
17 Would you like me to read it?

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Q. Turning back to your declaration, Mr. Norton,
paragraph 3, the third sentence reads:

"I was previously the associate director of
product management for liquid biopsies at Personalis
from January 2022 until August 2023."

How did your job responsibilities in that
position differ from your later position as the director

1 of product management?

2 A. Perhaps I will answer that question by stating
3 that as now as a director versus as an associate
4 director, the -- the varied responsibilities that I
5 described before are all still there, but perhaps now
6 there's a greater emphasis and role in strategic, the
7 strategic element of the job, as well as the people
8 management part of the job.

9 Q. Okay. And then in the last sentence of
10 paragraph 3, then, I'll have a similar question. How
11 did your job responsibilities differ when you were the
12 senior product manager of immuno-oncology at Personalis
13 from November 2018 until January of 2022?

14 A. I would say that in -- as a senior product
15 manager, that the role is -- takes perhaps a bit more
16 direction from the manager. Still has a lot of the same
17 elements, but maybe less strategically focused, more
18 tactically focused.

19 Q. And what do you mean by tactically focused?

20 A. So what I mean by tactically focused is that --
21 that would include things like developing messaging, how
22 are you going to message, and to who -- who is your
23 audience. Positioning within the marketplace. That
24 would include things like who do you want to speak or
25 can you -- can you produce a speaker at a conference

1 that would speak highly of your product. Those kinds of
2 things, I classify as tactical activities.

3 Q. Let's move to paragraph 4 of your declaration,
4 where you wrote:

5 "I was a senior product manager of droplet
6 digital sequencing at Bio-Rad Laboratories from
7 March 2017 until November 2018.

8 Now, with a caution not to tell me anything
9 confidential with respect to Bio-Rad, can you describe
10 for me what your job responsibilities were at Bio-Rad?

11 A. From a categorial perspective, largely the same.
12 And what I mean by that is that there are the elements
13 that I mentioned before, which I think is extensible to
14 product management within this industry. So that
15 includes a strategic tactical on market, bringing new
16 product to market, elements.

17 Q. Okay.

18 A. But as it now applied to single-cell sequencing
19 using a droplet technology.

20 Q. Single-cell sequencing, are you referring to DNA
21 sequencing?

22 A. In this case, I'm referring to RNA sequencing.

23 Q. RNA sequencing. Okay. And how is RNA
24 sequencing related to DNA sequencing?

25 A. Well, RNA sequencing is a -- generally used as a

1 measure for expression.

2 Q. Mm-hmm.

3 A. And so when classifying -- the goal around
4 single-cell sequencing is identifying different types of
5 cells. And one way to do that en masse across tissue is
6 to look at the expression levels, the differential
7 expression levels in droplets, and so that you can have
8 a good understanding of the population and how that
9 population of the cells is -- is changing.

10 So to answer your question specifically, RNA is
11 used for a specific application and the DNA is used for
12 a different application.

13 Q. I see. And again, on a nonconfidential basis, I
14 mean, was RNA sequencing done using basic DNA sequencing
15 technologies, just -- just somehow converting the RNA
16 sequences to a DNA format and then sequencing the DNA,
17 or was there some other process that was used?

18 MR. LUMAN: Objection. Form.

19 THE DEPONENT: Yes. It was a converting RNA to
20 DNA and sequencing DNA, which is a fairly standard
21 approach --

22 BY MR. NAINI:

23 Q. I see.

24 A. -- in RNA sequencing.

25 Q. I see. And I'm just trying to understand if

1 that DNA sequencing technologies that were -- that
2 under -- that underlie the Bio-Rad technology, was that
3 similar to the DNA sequencing technologies that are used
4 at Personalis now?

5 A. They both use Illumina sequencers.

6 Q. And did you -- again, on a nonconfidential
7 basis, was the droplet digital sequencing technology
8 that you were a senior product manager of at Bio-Rad,
9 did it use capture probes?

10 A. I don't recall.

11 Q. So there aren't capture probes used as part of
12 the Illumina sequencing technology, then?

13 MR. LUMAN: Calls for speculation.

14 THE DEPONENT: I think it's important to
15 decouple Illumina-based sequencing with amplification or
16 capture-based library preparation or enrichment methods.

17 BY MR. NAINI:

18 Q. So you know more about the technology than I do.
19 I don't really understand that answer.

20 So what do you mean by decouple the
21 Illumina-based amplification or capture-based library
22 preparation or enrichment methods?

23 A. What I mean by that is that sequencing is its
24 own technology and the preparation of samples before it
25 goes onto a Illumina sequencer is a different type of

1 technology.

2 Q. I see. So -- so when you said you -- you don't
3 recall now whether capture probes were used in the
4 Bio-Rad technology, you were talking about the Bio-Rad
5 technology side of the sequencing that was taking place,
6 right?

7 A. That's correct.

8 Q. Okay. Were -- were primers being used in the
9 Bio-Rad technology, again, on a nonconfidential basis?

10 A. I don't recall.

11 Q. Going to paragraph 5, actually. Now we get to
12 Illumina, going in reverse chronological order through
13 your background.

14 You wrote in paragraph 5 of your declaration:

15 "I was a product manager of DNA applications at
16 Illumina, Inc. from September 2014 until March 2017."

17 And then you wrote:

18 "I was a senior program manager of genomic
19 solutions at Illumina from October 2012 until
20 September 2014."

21 Well, first let's start with product manager of
22 DNA applications. What -- what technologies did that
23 involve working with?

24 A. That involved a library preparation technology.

25 Q. And the libraries you're talking about here,

1 these are DNA sequencing libraries?

2 A. That's correct.

3 Q. On a nonconfidential basis, did that involve the

4 use of capture probes?

5 A. In the product line that I manage, it did not

6 involve the use of capture probes.

7 Q. What product line did you manage?

8 A. The product line is -- was called TruSeq Custom

9 Amplicon.

10 Q. And are there product lines that you were --

11 that you did not manage that you have in mind that did

12 involve capture probes?

13 A. Yes.

14 Q. What were those product lines?

15 A. One was called TruSeq Custom Enrichment.

16 Q. And were there any others?

17 A. I believe so, yes, but I don't recall -- recall

18 the names.

19 Q. Okay.

20 A. Yeah.

21 Q. Can you describe the capture probes that were

22 used in the TruSeq Custom Enrichment product?

23 A. I cannot, for the sole reason that I didn't

24 manage those products.

25 Q. But you know that they involved capture probes?

1 A. I do recall that they involved capture probes.

2 Q. I just want to understand why you think that
3 they involved capture probes.

4 A. Because of the -- well, several reasons. One
5 reason is the name of the product was TruSeq Custom
6 Enrichment. And while at Illumina, when we discussed
7 enrichment technologies, it was -- the underpinning
8 technology was the use of capture probes.

9 Q. And -- and you have a particular definition of
10 capture probes in mind when you're answering my
11 questions, right?

12 A. Yes.

13 Q. What is that definition that you're using?

14 A. A capture probe is a specific piece of -- a
15 short piece of DNA that is hybridizes to a target
16 sequence within the genome, and after hybridization is
17 physically removed from that solution. Yes.

18 Q. And the second sentence, then, that I read from
19 paragraph 5 of your declaration, where you were a senior
20 program manager of genomic solutions at Illumina, what
21 technology was involved in the genomic solutions that
22 you managed?

23 A. So this was a different role and this -- you can
24 think about it as a product manager. We call them
25 program managers at Illumina. So my role wasn't

1 managing a specific product line. Rather, it was
2 managing specific projects to bring them to market.

3 Q. Now, the projects that you managed in that role,
4 they -- they were nucleic acid related to projects. Is
5 that right?

6 A. Some were sequencing services, like one was a
7 sequencing service --

8 Q. Mm-hmm.

9 A. -- that I managed.
10 Another one --

11 Q. And by sequencing, you are referring to nucleic
12 acid sequencing, right?

13 A. Correct. Another one was related to a another
14 version of the TruSeq Custom Amplicon product line. So
15 that was a library preparation-based technology.

16 Q. The TruSeq Custom Amplicon product line.

17 A. Mm-hmm.

18 Q. I'm just interested in the term "amplicon" in
19 that. What -- what does amplicon mean?

20 A. Amplicon is an amplified region of DNA.

21 Q. And how was -- how was the region of DNA
22 amplified in the TruSeq product line?

23 A. Through a polymerase chain reaction.

24 Q. And did that enrich for the targets of the
25 polymerase chain reaction in that product?

1 MR. LUMAN: Objection. Form.

2 THE DEPONENT: It amplified those specific
3 targets, yes.

4 BY MR. NAINI:

5 Q. Okay. And when it amplified them, did it enrich
6 for those sequences?

7 MR. LUMAN: Objection. Calls for expert
8 testimony.

9 THE DEPONENT: It created amplicon products of
10 those specific targeted regions.

11 BY MR. NAINI:

12 Q. Okay. And it did not create amplicon products
13 of non-targeted regions, right?

14 MR. LUMAN: Objection. Calls for speculation
15 and expert testimony.

16 THE DEPONENT: Yeah, I can't say specifically
17 its intention was to amplify those targeted areas.

18 BY MR. NAINI:

19 Q. Yeah. I just want to know what you understand
20 as the senior program manager of that project. I mean,
21 PCR targets particular sequences that are targeted by
22 the primer sequences used in the reaction, right?

23 A. Can you restate the question.

24 Q. Sure. PCR targets particular sequences that are
25 targeted by the primer sequences used in the PCR

1 reaction, right?

2 MR. LUMAN: Objection. Foundation. Incomplete
3 hypothetical.

4 THE DEPONENT: I'm sorry. Can you repeat the
5 question one more time.

6 BY MR. NAINI:

7 Q. PCR targets particular sequences that are
8 targeted by the primer sequences used in the PCR
9 reaction, right?

10 MR. LUMAN: Objection. Foundation. Incomplete
11 hypothetical.

12 THE DEPONENT: I believe so.

13 BY MR. NAINI:

14 Q. And those targeted sequences are amplified in
15 the PCR reaction, right?

16 A. That's correct.

17 Q. When they're amplified, they are enriched over
18 non-targeted sequences, right?

19 MR. LUMAN: Objection. Calls for speculation
20 and expert testimony.

21 THE DEPONENT: I generally don't refer to
22 PCR-based technologies. I usually refer to them as
23 amplified regions. And I refer to capture-probe-based
24 technologies as enriched regions.

25 ///

1 BY MR. NAINI:

2 Q. I see. So just to be clear, you do not refer to
3 PCR-based technologies as enrichment technologies?

4 A. In my -- that's the way, generally, that I think
5 about it, just to keep them separate.

6 Q. And -- and you have -- you have done that
7 throughout your career, distinguish enrichment from
8 amplification, right?

9 A. That's correct.

10 Q. Was there a particular time that you started
11 distinguishing between those two, or has that always
12 been a distinction in your mind?

13 A. I can't recall specifically when I -- that --
14 when I thought about that distinction.

15 Q. Have you had that distinction in your mind, at
16 least in the time that you have been at Personalis?

17 A. Yes.

18 Q. So this is not a distinction that's come into
19 your mind over the last year, for example?

20 A. No.

21 Q. Moving to paragraph 6 of your declaration, you
22 wrote:

23 "I was a business development manager at
24 Athea Technologies from December 2011 until
25 October 2012." And "I was a product [sic] manager at

1 Althea from 2008 until December 2011."

2 Can you describe for me your job
3 responsibilities at Althea and technologies that you
4 worked with?

5 A. Yeah. Just one correction. I was a project
6 manager at Althea, not a product manager.

7 Q. Sorry.

8 A. So the context here is important in that
9 Althea Technologies is a contract manufacturing
10 organization, which means that they specifically
11 produced active pharmaceutical ingredients, or APIs, in
12 a contractual manner for, you know, biopharma companies
13 who wanted to outsource the manufacturing.

14 So I'm sorry. The first question was as a
15 business development manager?

16 Q. Sure. You know, what were your job
17 responsibilities at the company over time, and what
18 technologies did you work with?

19 A. Yeah. So the -- my role as a business
20 development manager at Althea Technologies is -- was
21 basically a sales role, where I was in the field, and I
22 went to different prospective and current clients to
23 either sell or check in on Althea services.

24 As a project manager before I was a business
25 development manager, I worked specifically with the

1 contracted organizations and their represented, you
2 know, individuals from those contracted organizations or
3 that we contracted with to manage their projects. So
4 that would include, you know, weekly calls,
5 predetermined calls of how their projects are
6 progressing.

7 The technologies that I worked with were not
8 genomic in any way. They were mostly freeze driers,
9 fill-finish technologies into vials, those sorts of
10 things.

11 Q. All very important technologies.

12 A. Yes.

13 Q. But not genomic. I understand.

14 A. Yes.

15 Q. So in paragraph 7, I want to understand, again,
16 the same types of questions about responsibilities and
17 technologies. In paragraph 7, you wrote:

18 "I was a senior production specialist/project
19 lead at Bayer Health Care from 2006 to 2008." And "I
20 was a product -- production specialist at Bayer from
21 2004 to 2006."

22 So, again, you know, what were your job
23 responsibilities and technology areas that you worked
24 on?

25 A. So very similar to the previous answer at

1 Althea. As a production specialist and senior
2 production specialist, my job was relatively the same,
3 which was to produce the Factor VIII protein for
4 hemophiliacs in a large newly constructed manufacturing
5 facility for this Factor VIII protein.

6 Q. And going a little out of order, going down to
7 paragraph 9, you wrote:

8 "I earned a Bachelor's of Science in
9 microbiology, immunology & molecular genetics and
10 neuroscience from the University of California
11 Los Angeles in 2004."

12 Do you see that?

13 A. I do.

14 Q. Is that your only undergraduate degree?

15 A. Yes. So neuroscience and -- those are two
16 different bachelor degrees.

17 Q. Got it. So you were dual --

18 A. Dual major.

19 Q. -- dual major.

20 And then now going back, after that, in
21 paragraph 8, you wrote that you earned a Master's of
22 Business Administration from UC San Diego in 2011.

23 Is that your only advanced degree?

24 A. It is.

25 Q. And how did you decide to go and get an MBA

1 after earning a Bachelor's of Science in two scientific
2 fields?

3 A. I really -- in my time at Althea in particular,
4 I really enjoyed the interactions with non-technical,
5 meaning non-lab operations, in that functional area, and
6 I really enjoyed working with people in finance and
7 marketing and other business-related functional areas,
8 which inspired me to get my MBA.

9 Q. Uh-huh. Did you ever consider a technical
10 advanced degree?

11 A. I did not.

12 Q. Why not?

13 A. I felt that I wanted to work in the industry and
14 didn't feel that -- at that time, that I needed an
15 advanced technical degree.

16 Q. Do you think you would benefit -- do you think
17 now that you would have benefitted from an advanced
18 technical degree in the career path that you have taken?

19 A. Based on my experience through my career, I
20 don't think it's necessary to have an advanced technical
21 degree in the product management role.

22 Q. And that's a highly technical field and a role
23 that deals with a lot of technical details, though,
24 right?

25 MR. LUMAN: Objection. Foundation. Form.

1 THE DEPONENT: There is a certain extent of
2 technical knowledge that is needed --
3 BY MR. NAINI:
4 Q. And --
5 A. -- in this role.
6 Q. And do you -- the technical skills that you have
7 brought to bear, is this something that you learned as
8 an undergraduate or that you have learned on the job or
9 both?
10 A. The technical skills brought to bear were not
11 learned while at UCLA. They were learned on the job.
12 Q. Is it fair to say that you consider yourself to
13 be technically knowledgeable about the Personalis assays
14 that you're responsible for?
15 A. Yes, to a certain extent. The extent is that I
16 don't actually work in the lab. I don't do reactions at
17 the bench. I don't design panels. I don't put anything
18 on the sequencer. I don't do any bioinformatic
19 analysis. I don't produce the reports myself. But I
20 need to have a certain level of understanding of how
21 those things work.
22 Q. And you are satisfied that you have that certain
23 level of understanding of how things work?
24 A. I am.
25 Q. And it's at a high enough level so that you can

1 perform your job responsibilities at Personalis to your
2 satisfaction?

3 A. Yes.

4 Q. Has anyone ever criticized you for lack of
5 technical chops at Personalis?

6 A. Not that I ever recall.

7 MR. NAINI: I'm going to mark as Exhibit 1200 --

8 MR. LUMAN: Thank you.

9 MR. NAINI: -- a printout that I will represent
10 to you, Mr. Norton, that I prepared over the last couple
11 of days by printing out your LinkedIn profile and a
12 couple of expansions. The way LinkedIn works is
13 sometimes you don't see all the education or you don't
14 see all of the background on the front screen, so you
15 have to click on it and it expands it. So I expanded
16 education and I expanded experience so that it shows all
17 of the entries in your LinkedIn profile.

18 (Exhibit No. 1200 marked for identification.)

19 BY MR. NAINI:

20 Q. Can you take a moment and look through the
21 exhibit and confirm for me that there -- that this is
22 your LinkedIn profile?

23 A. I can confirm this is my LinkedIn profile.

24 Q. I just have one question for you, Mr. Norton, on
25 this.

1 There's one entry on an internal page under
2 Experience. So if you look at the experience packet,
3 which is the last four pages of the exhibit, there is an
4 entry here. It says you were the co-chair of the MRD
5 clinical validation working group at an organization
6 called BLOODPAC from June 2023 until the present.

7 Do you see that?

8 A. I do.

9 Q. I just want to understand what -- well, first,
10 what is the MRD validation working group at BLOODPAC?

11 A. The MRD clinical validation working group at
12 BLOODPAC is a specific -- a specific working group made
13 up of a cross-section of individuals across biopharma,
14 tool developers, tool providers, governments,
15 physicians, that work together to define the guidance on
16 how to clinically validate MRD solutions.

17 Q. And it says here, you were the co-chair of that
18 working group. How did you become the co-chair?

19 A. I was asked by the executive director of
20 BLOODPAC, the entire organization, if I would be
21 interested.

22 Q. And -- and who is the executive director?

23 A. Her name is Lauren Leiman.

24 Q. Can you spell that for the record, please.

25 A. I believe it is L-a-u-r-e-n, first name, and

1 then last name is L-e-i-m-a-n, Lauren Leiman.

2 Q. Thank you.

3 So what were your responsibilities -- or what
4 are your continuing responsibilities as the co-chair of
5 the working group?

6 A. Yes. I am still the co-chair of the MRD
7 clinical validation working group, and this is a
8 volunteer. I'm not compensated by these folks. I work
9 with my co-chair and everybody else who are also
10 volunteers as regular members of this particular working
11 group to help define what are the key clinical study
12 attributes that are needed in order to produce a
13 clinical val -- MRD clinical validation study.

14 Q. Do you -- do you know why you were asked to be a
15 co-chair on the working group?

16 A. I was told that my insights into this particular
17 subject matter were helpful to the group, the clarity
18 that I brought to the team, and dedication and effort
19 and passion for this particular area. They saw that as
20 good leadership qualities for this particular working
21 group.

22 Q. Who are your other co-chairs on the working
23 group?

24 A. So that is public information.

25 Q. Oh, yes. And please --

1 A. Yeah.

2 Q. -- only -- only nonconfidential information --

3 A. Okay.

4 Q. -- in response to my --

5 A. Sure.

6 Q. -- this line of questions.

7 A. A woman named Carol Pena. And she works at

8 Merck, the biopharmaceutical company.

9 Q. What is her role at Merck?

10 A. I believe it is in precision oncology.

11 Q. And is she a scientist? Is she a non-scientist?

12 A. She -- I don't believe she is a -- she is in the

13 lab anymore. I believe she is at the management,

14 strategic level.

15 Q. Do you know, is she a Ph.D. or an M.D.?

16 A. She is a Ph.D.

17 Q. And do you have other co-chairs?

18 A. In this working group, no.

19 Q. Okay. So -- so she is your one and only

20 co-chair?

21 A. Correct.

22 Q. You said that she has a Ph.D. Do you know what

23 her role was before she got into the management at a

24 strategic level?

25 A. I do not.

1 Q. Do you know why she was selected to be your
2 co-chair?

3 A. She was already the co-chair, a co-chair. So
4 she was there from the beginning. And to answer your
5 question, I don't know why she was selected from the
6 beginning.

7 Q. And so -- so did she decide to reach out to you,
8 or is it someone else, to -- to become her co-chair?

9 A. I recall that it was Lauren Leiman that called
10 me to ask.

11 Q. Okay. And again, can you remind me, what was
12 Lauren -- Lauren Leiman's role in the working group
13 then?

14 A. She is the executive director of BLOODPAC, of
15 the entire organization.

16 The way that BLOODPAC works is important to
17 understand. There are multiple working groups. This is
18 just one of them under the umbrella of BLOODPAC.

19 MR. NAINI: We could take a break now or we
20 could keep going, because I'm going to mark some
21 exhibits. So this could be a break point or we can keep
22 going.

23 THE DEPONENT: I can do five minutes.

24 MR. LUMAN: Okay.

25 THE DEPONENT: If that's okay.

1 MR. NAINI: It is.

2 (A recess transpires.)

3 MR. NAINI: Mr. Norton, I'm passing to you what
4 I have marked as Exhibit 1201.

5 (Exhibit No. 1201 marked for identification.)

6 BY MR. NAINI:

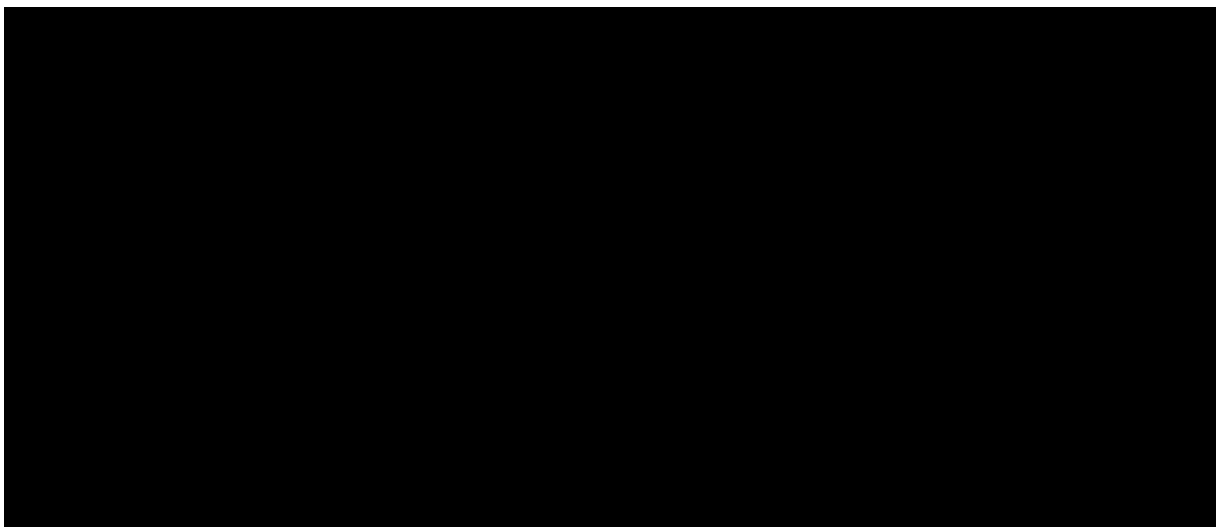
7 Q. I will represent for the record that it's an
8 article downloaded and printed from genengnews.com. It
9 appears to show that you are the author, and it's
10 entitled "Tumor-Informed Liquid Biopsies to Transform
11 Oncology Drug Development?"

12 Did I read that right?

13 A. Yes.

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Q. Did you review this article before it was published?

A. I don't recall specifically if I did or didn't at that time.

Q. Now, you're -- you are listed as the author of the article on the printed article, right?

A. I am.

Q. That's you and that's your picture, right?

A. That is.

Q. Okay. And it says that you are associate director of product management at Personalis under your picture, right?

A. That's right.

Q. And the time period, based on your declaration, you were associate director of product management is anywhere from the present back to January of 2022, right?

1 MR. LUMAN: Objection.

2 BY MR. NAINI:

3 Q. I'm sorry. Associate director is January 2022
4 until August of 2023, right? In paragraph 3 of your
5 declaration?

6 A. Correct.

7 Q. So the article would have been published at some
8 point between January 2022 and August 2023?

9 MR. LUMAN: Objection. Mischaracterizes the
10 document.

11 MR. NAINI: Maybe we can get that.

12 What -- what aspect -- I'm just trying to
13 nail -- nail down what the date range is, and if I
14 misspoke, I apologize. But --

15 MR. LUMAN: Okay.

16 MR. NAINI: -- if you want to tell me the basis
17 of your objection, I'm happy to fix it.

18 MR. LUMAN: The basis of my objection is that
19 the document -- we haven't established yet what date the
20 document is. So I will also throw in a lack of
21 foundation.

22 MR. NAINI: Got it.

23 BY MR. NAINI:

24 Q. So the article does indicate that at the time,
25 you were associate director of product management at

1 Personalis, right, Mr. Norton?

2 A. It does.

3 Q. And based on your declaration, you were
4 associate director of product management for liquid
5 biopsies at Personalis from January 2022 until
6 August 2023, right?

7 A. Correct.

8 Q. Does that refresh your memory about when this
9 article was published?

10 A. It was likely during that time, yes.

11 Q. Okay. Now, you -- you are the indicated author
12 of this article, right?

13 A. I am.

14 Q. And you testified previously that you don't
15 recall whether you reviewed it or not before
16 publication. Is that right?

17 A. That's correct.

18 Q. Is it your -- is it your custom to review
19 articles that are going to be published under your name
20 before they are published?

21 A. I -- I'm not aware of any customs that we
22 follow --

23 Q. Is it your personal practice to review articles?

24 MR. LUMAN: Let the witness complete his answer.

25 MR. NAINI: I'm withdrawing the question.

1 BY MR. NAINI:

2 Q. Is it your personal practice to review articles
3 published under your name before they are published?

4 MR. LUMAN: Lack of foundation.

5 THE DEPONENT: I off -- I will -- A, I don't
6 publish a lot of articles myself.

7 MR. NAINI: Well, then it should be easy to
8 answer the question.

9 MR. LUMAN: Please don't interrupt the witness.

10 THE DEPONENT: But generally, I don't have any,
11 you know, major custom around reviewing documents in
12 every single case. It's very context dependent.

13 BY MR. NAINI:

14 Q. When you communicate to the outside world about
15 liquid biopsies and the technologies of Personalis, it
16 is important to you to try to be as accurate as you can,
17 isn't it?

18 A. It is.

19 Q. And part of that would involve reviewing
20 articles that are going to be published under your name,
21 wouldn't it?

22 A. It could be.

23 Q. Have you had a chance to look at the article in
24 Exhibit 1201?

25 A. At this time now?

1 Q. Yeah. Have you had a chance to review it to
2 your satisfaction?

3 A. Not yet.

4 Q. Okay. Please review it to your satisfaction.
5 And I have some questions about it.

6 A. Okay. Okay.

7 Q. Now, that you've read the article, is there
8 anything in the article that you would like to correct?

9 A. I would like to read it again.

10 Q. Okay.

11 A. I don't think there is anything I would like to
12 change.

13 MR. LUMAN: And I'll put a couple objections on
14 the record.

15 We are going to object to this exhibit as
16 outside the scope of his declaration, and also that
17 petitioner hasn't established that it's prior art. So
18 it hasn't established that it's relevant to what a
19 person skilled in the art would have known at the time
20 of the invention.

21 MR. NAINI: Okay. And it's relevant to the
22 testimony in his declaration, but we can take that up if
23 it becomes an issue.

24 BY MR. NAINI:

25 Q. Turn to the last paragraph in the article in

1 Exhibit 1201, Mr. Norton. In the second sentence, it
2 says:

3 "By using ultrasensitive liquid biopsies based
4 on WGS, drug developers can accurately measure (ct)DNA
5 levels in blood much earlier than by using conventional
6 tests."

7 So first my question is: WGS there refers to
8 whole genome sequencing, correct?

9 A. Correct.

10 Q. Okay. And when it -- when you wrote that --
11 that by using ultrasensitive liquid biopsies drug
12 developers can accurately measure levels, you were --
13 you were pointing out that sensitivity is an important
14 issue, right?

15 A. I am.

16 Q. And very high degrees, ultrasensitivity is a
17 desirable feature in these assays, right?

18 MR. LUMAN: Objection. Mischaracterizes the
19 document.

20 THE DEPONENT: It can be highly desirable. I
21 think it's application specific.

22 BY MR. NAINI:

23 Q. Okay. Are there any applications that you are
24 aware of where ultrasensitive liquid biopsies would not
25 be desirable?

1 A. Not at this time.

2 Q. If you can turn back to the second page of the
3 exhibit and the section that starts about two-thirds of
4 the way down that's -- the heading reads:

5 "WGS of tumor tissue DNA."

6 And once again, just to be clear, WGS there
7 refers to whole genome sequencing, right?

8 A. That's correct.

9 Q. And then in the second paragraph, second
10 sentence of that section, it reads:

11 "WGS of tumor tissue DNA provides information on
12 many mutations because it examines the entire genome; an
13 exome represents only 1 to 2 percent of the genome."

14 Do you see that?

15 A. I do.

16 Q. So the exome percentage, that's what you told us
17 about before with respect to the other Personalis test
18 that's exome based, it targets around 1 to 2 percent of
19 the genome, right?

20 MR. LUMAN: Objection. Form. Mischaracterizes
21 testimony.

22 THE DEPONENT: That's correct.

23 BY MR. NAINI:

24 Q. So then whole genome sequencing of tumor tissue
25 DNA examines the entire genome. That's what's written

1 in the first part of the sentence, right?

2 A. Correct.

3 Q. Okay. What did you mean when you wrote that it
4 examines the entire genome?

5 MR. LUMAN: Objection. Outside the scope and --
6 just outside the scope.

7 MR. MOORE: Establishing his prior art is the
8 other.

9 MR. LUMAN: Oh, and relevance.

10 THE DEPONENT: I suppose there is the genome
11 that exists in all of our cells and whole genome
12 sequencing of that genome, the technology of sequencing,
13 sequences the entire genome that is present in our body
14 in our cells.

15 BY MR. NAINI:

16 Q. Okay. What percentage of the genome does whole
17 sequencing examine?

18 MR. LUMAN: Objection. Outside the scope.
19 Calls for expert testimony.

20 THE DEPONENT: I believe it is 100 percent.

21 BY MR. NAINI:

22 Q. Okay. So if a single base of the genome is not
23 sequenced, then you would not consider -- in a
24 particular assay, you would consider that not to be a
25 whole genome sequence?

1 MR. LUMAN: Objection. Outside the scope.
2 Calls for expert testimony.

3 Amir, how does this relate to his declaration?

4 MR. NAINI: If you want to excuse the witness, I
5 am happy to have a colloquy on the record. Otherwise,
6 there is a question pending.

7 BY MR. NAINI:

8 Q. The question is, so if a single base of the
9 genome is not sequenced, then you would not consider
10 that particular assay to be a whole genome-sequencing
11 assay, correct?

12 MR. LUMAN: Objection. Outside the scope and
13 calls for expert testimony.

14 THE DEPONENT: Yeah, I -- I'm not an expert at
15 whole genome sequencing and what is considered, like
16 where that line would be drawn specifically, if it
17 requires every single base or not every single base up
18 to a certain extent. I'm just not an expert to be able
19 to comment on that.

20 BY MR. NAINI:

21 Q. Have you used whole term -- the term "whole
22 genome sequencing" in the course of your work at
23 Personalis?

24 A. I have.

25 Q. Have you used that term as in this -- as you did

1 in this article when you communicated to the outside
2 world about liquid biopsy technology?

3 A. I have used that term in --

4 Q. What did you intend that term to mean when you
5 used it?

6 MR. LUMAN: Objection. Outside the scope.
7 Relevance.

8 THE DEPONENT: Sequencing up to the entire human
9 genome.

10 BY MR. NAINI:

11 Q. And what do you mean by entire genome in that
12 answer you just gave?

13 MR. LUMAN: Same objections.

14 THE DEPONENT: The set of chromosomes that exist
15 in all of our cells.

16 BY MR. NAINI:

17 Q. And on a nucleotide base -- basis, what do you
18 mean when you say "sequencing up to the entire human
19 genome" in your prior answer?

20 MR. LUMAN: Same objections.

21 THE DEPONENT: I -- I can't comment on the
22 nucleotide basis. I am not -- I don't have enough
23 knowledge in this area specifically to say is it every
24 single base or is it 99.999999 percent of the basis.

25 ///

1 BY MR. NAINI:

2 Q. If I sequence 50 percent of the human genome, is
3 that whole genome sequencing?

4 A. I'm not expert enough to be able to comment on
5 that.

6 Q. If I sequence the exome, is that whole genome
7 sequencing?

8 MR. LUMAN: Objection. Outside the scope.
9 Calls for expert testimony. Incomplete hypothetical.

10 THE DEPONENT: My understanding is sequencing
11 the exome is you're sequencing the coding regions of the
12 genome.

13 BY MR. NAINI:

14 Q. And exome sequencing is not whole genome
15 sequencing, right?

16 A. I understand that to be true.

17 Q. Okay. Exome sequencing, sequences, you wrote
18 here, about 1 to 2 percent of the genome, right?

19 A. Correct.

20 Q. Okay. So what percentage of the genome is
21 sequenced in whole genome sequencing?

22 MR. LUMAN: Objection. Outside the scope.
23 Calls for expert testimony. Relevance.

24 THE DEPONENT: I'm not expert enough to be able
25 to comment if it's 100 percent, all bases, or slightly

1 different than that.

2 BY MR. NAINI:

3 Q. Can you put a lower limit on what constitutes
4 whole?

5 MR. LUMAN: Same objections.

6 THE DEPONENT: I cannot.

7 BY MR. NAINI:

8 Q. Not even 1 percent of the genome?

9 MR. LUMAN: Same objections.

10 THE DEPONENT: I cannot.

11 BY MR. NAINI:

12 Q. So it could be less than 1 percent?

13 MR. LUMAN: Same objections.

14 THE DEPONENT: I'm not sure.

15 BY MR. NAINI:

16 Q. Is there a performance benefit to using whole
17 genome sequencing rather than exome sequencing in an
18 assay?

19 MR. LUMAN: Incomplete hypothetical.

20 THE DEPONENT: To be -- did you say in an assay?

21 MR. NAINI: Yes.

22 THE DEPONENT: Well, specifically in an MRD
23 assay such as NeXT Personal, yes.

24 BY MR. NAINI:

25 Q. What is the performance benefit for -- with

1 respect to whole genome sequencing?

2 A. The benefit is it can translate to lower limit
3 of detection and higher sensitivity.

4 Q. Is there a percentage of the genome that one
5 needs to sequence to achieve that performance benefit?

6 MR. LUMAN: Objection. Calls for expert
7 testimony.

8 THE DEPONENT: I'm not sure.

9 BY MR. NAINI:

10 Q. So you have never researched that issue in the
11 course of your responsibilities at Personalis?

12 A. I have not.

13 Q. No one external from Personalis has ever asked
14 you if there is a percentage of the genome in whole
15 genome sequencing that should be sequenced to achieve
16 the performance benefits of whole genome sequencing?

17 A. Not that I recall.

18 Q. You can put that aside.

19 I'm handing to you what I have marked as
20 Exhibit 1202.

21 (Exhibit No. 1202 marked for identification.)

22 MR. NAINI: And take some time to look at that
23 exhibit and let me know when you're ready.

24 Actually, you have -- can I look at your copy of
25 the exhibit real quick? Thanks. There you go.

1 For the record, Exhibit 1202 is a printout that
2 on its face is dated Thursday, December 17th, 2020, of
3 an Xtalk from the website xtalks.com entitled "NeXT
4 Liquid Biopsy: A High-Performance, Exome-Wide Liquid
5 Biopsy Assay to Study Tumor Dynamics - Broadcast 1."

6 When -- when you are ready, Mr. Norton, let me
7 know.

8 MR. LUMAN: And I will note that petitioner has
9 indicated this document was published in 2020, and so
10 it's not prior art to the patents-in-suit, and they
11 haven't established -- established any relevance as to
12 what the person versed in the art would have known at
13 the time of the invention based on this document.

14 THE DEPONENT: Okay.

15 BY MR. NAINI:

16 Q. On the second page of Exhibit 1202, that's your
17 picture, right, Mr. Norton?

18 A. It is.

19 Q. And it indicates that you are the senior product
20 manager at Personalis, Inc., right?

21 A. Correct.

22 Q. And Xtalks, what is that?

23 A. Xtalks, I am not intimately familiar with that
24 organization. But from my understanding, they are a
25 platform for producing and distributing webinars.

1 Q. And did you participate in the webinar that's
2 described in Exhibit 1202?

3 A. I believe I did.

4 Q. Yeah, you were one of the speakers, in fact,
5 right?

6 A. It looks to be so, from this document.

7 Q. And you have no reason to believe that you
8 weren't one of the speakers, do you?

9 A. I have no reason to believe that I wasn't.

10 Q. And the other speaker that was indicated is
11 Sean Michael Boyle, Ph.D. He's a senior director of
12 bioinformatics applications at Personalis.

13 Do you see that?

14 A. I do see that.

15 Q. Do you know Dr. Boyle?

16 A. I do.

17 Q. Do you recall if he participated as a speaker in
18 this webinar with you?

19 A. This was a long time ago, so I don't recall
20 specifically giving this webinar in great detail, but I
21 do not have reason to believe that he wasn't.

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1 BY MR. NAINI:

2 Q. Do -- do you recall writing any or all of the
3 description of the webinar that is in Exhibit 1202 on
4 the first page?

5 A. I do not recall.

6 Q. So you may or may not have participated in
7 authoring it?

8 A. I may or may not have participated in authoring
9 it.

10 Q. Have you interacted with Dr. Boyle at Personalis
11 for any other purpose other than this webinar?

12 A. I have.

13 Q. What -- what's the nature of your interactions
14 with him?

15 A. I would say it's varied. He leads -- his group
16 and himself are highly focused on our collaborations.
17 His group is also focused on -- or at least I believe at
18 the time, they were somewhat focused on technology
19 development. And so my interactions with Dr. Boyle
20 consist of weekly meetings, check-ins, requests for
21 production of certain pieces of clinical data. That's
22 largely the extent of it now.

23 Q. The collaborations that you're referring to, are
24 they the collaborations with external biopharmaceutical
25 companies?

1 A. They can be external biopharmaceutical companies
2 or -- and/or could also be large consortia or academic
3 institutions.

4 Q. And by consortia, you mean collections of
5 companies or academic institutions?

6 A. That's correct.

7 MR. NAINI: Mr. Norton, I'm handing to you what
8 I have marked as Exhibit 1203.

9 (Exhibit No. 1203 marked for identification.)

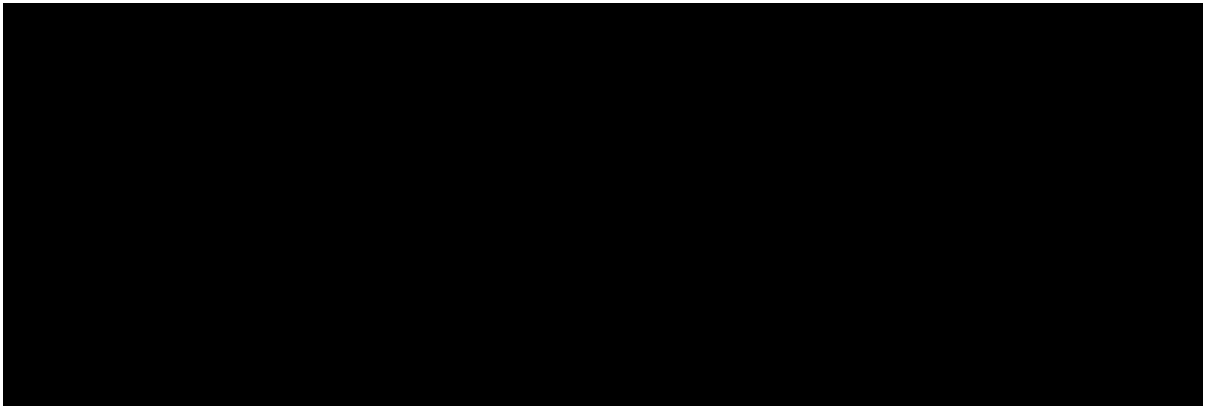
10 MR. LUMAN: Thank you.

11 MR. NAINI: For the record, it appears to be a
12 printout from thepathologist.com entitled "Liquid
13 Biopsies: Reach For the Stars." Your name is on it,
14 along with your picture, Mr. Norton, and it's dated on
15 its face August 11th, 2022. Please take the time you
16 need to review the exhibit and let me know when you're
17 ready.

18 MR. LUMAN: And I'll make the -- make some
19 similar objections, that petitioner has indicated this
20 document was published in 2022, which is years after the
21 filing date of the patents at issue in this case and,
22 therefore, hasn't established any relevance as to what
23 the person of ordinary skill in the art would have known
24 at the time of the invention.

25 THE DEPONENT: Okay.

1 BY MR. NAINI:



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8 Q. Do you -- did you review this article before it
9 was published?

10 A. I don't recall to what extent I reviewed this
11 article before it was published.

12 Q. Do you recall reviewing it to any extent before
13 it was published?

14 A. I don't recall. I may or may not have.

15 Q. Were you aware that it was going to be published
16 under -- under your name?

17 A. Yes.

18 Q. And you approved that it be published under your
19 name?

20 A. I don't recall approving or not approving --

21 Q. It wasn't --

22 A. -- it being published.

23 Q. -- published over your objection was it?

24 A. I don't think so.

25 Q. Are you familiar with thepathologist.com? Is

1 it -- in terms of -- well, what is thepathologist.com?

2 Do you know?

3 A. I do not know a lot about thepathologist.com.

4 Q. Okay. The article, you've had a chance to
5 review it, right?

6 A. I have.

7 Q. Okay. And it appears to be targeted to medical
8 practitioners who are treating -- who are providing
9 medical care to cancer patients, right?

10 A. It appears so, yes.

11 Q. What was the purpose of publishing this article
12 in thepathologist.com?

13 A. I actually do not know the answer to that
14 question.

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[REDACTED]

Q. Okay. And were -- are there other potential authors at Personalis who could have authored this article who have an advanced degree, such as a Ph.D. or an M.D.?

A. I don't know how well anybody else could author this, if they could or couldn't do as well.

Q. You're not uniquely qualified at Personalis to author an article of this type for publication at thepathologist.com. Is that right?

A. Could you repeat the question.

Q. You are not uniquely qualified at Personalis to author an article of this type for publication in thepathologist.com. Is that right?

A. I do not believe I am uniquely qualified --

Q. And are there other potential --

A. -- to do that.

Q. And are there other potential authors of an article like this at Personalis who have either an M.D. or Ph.D.?

A. There are orthopedic people at Personalis -- at this specific time today or at any time?

Q. At this time of the publication.

1 A. Of the date -- at that time of the publication,
2 I don't know. This looks like over a year ago.

3 Q. There are a lot of Ph.D.s who work at
4 Personalis, right?

5 MR. LUMAN: Objection. Foundation.

6 BY MR. NAINI:

7 Q. Are there a lot of Ph.D.s that work at
8 Personalis?

9 A. I believe so.

10 Q. Are there M.D.s that work at Personalis?

11 A. Yes.

12 Q. Are there any who have dual degrees, M.D.,
13 Ph.D.?

14 A. I don't recall. I don't know.

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20 MR. NAINI: Okay. I think it's almost 11:45, so
21 let's break for lunch.

22 MR. LUMAN: Okay.

23 (A recess transpires.)

24 (Exhibit No. 1204 marked for identification.)

25 MR. NAINI: Mr. Norton, I'm handing you an

1 exhibit that I've marked as Exhibit 1204.

2 MR. LUMAN: Thank you.

3 MR. NAINI: Please review the exhibit and let me
4 know when you are ready.

5 And while you're reviewing, I will note for the
6 record that it's a one-page exhibit that pairs --
7 appears to be a scientific abstract entitled "Large
8 Healthy Donor Dataset Demonstrates High Analytical
9 Specificity and Repeatability For the NeXT Personal
10 Molecular Residual Disease Assay." There are a number
11 of authors, all indicated to be from Personalis, and
12 Dan Norton is the sixth indicated author.

13 MR. LUMAN: And I will note that this document
14 has what appears to be a 2023 copyright date on it, and
15 so person -- and so petitioner has not established that
16 this document is prior art to the patents-in-suit and
17 hasn't established the relevance as to what a person of
18 ordinary skill in the art would have known at the time
19 of the invention.

20 THE DEPONENT: Okay.

21 BY MR. NAINI:

22 Q. Mr. Norton, do you recognize this abstract?

23 A. I do.

24 Q. And did you -- are you a coauthor on it?

25 A. I am.

1 Q. And you see that it has a copyright date of 2023
2 at the bottom of the exhibit?

3 A. I do.

4 Q. So -- so was it published in 2023?

5 A. It was.

6 Q. Why are you listed as a coauthor?

7 A. Likely due to my involvement in meetings where
8 this study was discussed. And also, I assisted in
9 editing the document, the abstract, after it was
10 written.

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15 Q. Well, let's discuss that first author,
16 Fabio Navarro. Do you know, is -- is that Mr. or
17 Dr. Navarro? Do you know?

18 A. I believe it is Fabio Navarro, Ph.D.

19 Q. Ph.D.? And do you know what Dr. Navarro's --
20 well, yeah. Do you know what Dr. Navarro's job title
21 is?

22 A. Not specifically -- not specifically.

23 Q. Well, what -- what was his role with respect to
24 this paper and the committee that -- that you mentioned?

25 A. I think his role was involved with the analysis

1 of the results.

2 Q. So that would be a bioinformatic analysis?

3 A. That's correct.

4 Q. And there are a number of other coauthors. Are
5 there any, in reading the list, that -- that you know to
6 have either a Ph.D. or an M.D. degree?

7 A. Looking at this list, I can identify other
8 people that I know that have a Ph.D., but I don't know
9 everybody on here, if they have a Ph.D. or not.

10 Q. Okay. So you just don't know if -- if any
11 others have a Ph.D. or not?

12 A. I do know that -- that there are some that have
13 a Ph.D. on this list.

14 Q. Which ones on the list do you know to have a
15 Ph.D.?

16 A. I know that Gabor Bartha. I know John Lyle. I
17 know Josette Northcott. I know Rachel Marty Pyke. I'm
18 not sure about Charles or Jason, Charles Abbott or
19 Jason Harris. I don't know about Rui Chen. I do know
20 Sean Michael Boyle. I don't know about
21 Christian Haudenschild. I don't know about
22 Rose Santiago. I don't know about Christopher Nelson.
23 I don't know about Yelia Huo. I don't know about
24 Manju Chinnappa or Qi Zhang. And I believe Richard Chen
25 is -- I know he is an M.D., but I don't know if he is a

1 Ph.D. as well.

2 Q. Okay. And do you know if any of the other
3 coauthors, other than Richard Chen, have an M.D.?

4 A. That, I don't know.

5 Q. Okay. In the background section, the last
6 sentence reads:

7 "At ultra-high detection sensitivity levels, it
8 is critical to warrant a high specificity to ensure that
9 the detected signals are true measurements of the
10 residual disease."

11 Do you see that?

12 A. I do.

13 Q. Okay. What does that mean?

14 A. This sentence means that even at a high
15 sensitivity level of an assay, that it is also important
16 to have high specificity to avoid detection of false
17 positives.

18 Q. Okay. You can put that aside.

19 MR. NAINI: I'm going to hand you what I've
20 marked as Exhibit 1205. Please take the time you need
21 to review that. And while you do, I will just note for
22 the record that it's -- the exhibit, Exhibit 1205, is a
23 printout from xtalks.com that's entitled "Liquid
24 Biopsies Assays: Beyond Recurrence Detection in
25 Post-Diagnosis Cancer Management." It bears a date of

1 Friday, December 2nd, 2022. Let me know when you had a
2 chance to review it.

3 (Exhibit No. 1205 marked for identification.)

4 MR. LUMAN: I'll note that petitioner has
5 indicated this document has a publication date of 2022
6 and, therefore, hasn't established the relevance of this
7 document as to what a person of ordinary skill in the
8 art would have known at the time of the invention of the
9 patents involved in these two IPRs and hasn't
10 established that it's prior art to the patents in the
11 IPRs.

12 THE DEPONENT: Okay.

13 BY MR. NAINI:

14 Q. Okay. Do you recognize this xtalks.com
15 document?

16 A. I do.

17 Q. Okay. And it indicates that you were the sole
18 speaker for this webinar, right?

19 A. It does appear so from this document, yes.

20 Q. Do you recall giving the webinar?

21 A. I do, but not in great detail.

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1 Q. Okay. Did -- did you request that any other
2 speakers join you for this webinar?

3 A. I don't recall. This is almost a year ago, so
4 it's been some time.

5 Q. Do you recall being uncomfortable being the sole
6 speaker in this webinar?

7 A. I don't recall that, either.

8 MR. LUMAN: Objection. Foundation.

9 BY MR. NAINI:

10 Q. What do you mean by that answer? Do you -- were
11 you comfortable? Or you simply do not recall whether
12 you were comfortable or uncomfortable?

13 A. At this time, I don't recall if I was
14 comfortable or not comfortable when I gave the
15 presentation.

16 Q. Well, thinking, if you were asked to give a
17 webinar on these topics today, would you be comfortable
18 doing so?

19 A. I -- yes, I would feel comfortable.

20 Q. And the webinar concerns emerging technologies
21 in minimal residual disease detection, right?

22 MR. LUMAN: Are you reading from the document?

23 MR. NAINI: No. I am just asking question.

24 MR. LUMAN: Mischaracterizes the document.

25 MR. NAINI: I'm not reading from the document,

1 so I'm not trying to characterize it.

2 BY MR. NAINI:

3 Q. The question is: The webinar concerns emerging
4 technologies in minimal residual disease detection,
5 right?

6 MR. LUMAN: Mischaracterizes the document.

7 THE DEPONENT: I believe it mostly -- reading
8 from the document, it mostly seems as if it was
9 discussing applications of the technology.

10 BY MR. NAINI:

11 Q. Applications of the technology to what?

12 A. Well, as a secure early detection of disease
13 recurrence, as an example, bullet point 2 on the first
14 page, utility in more disease indications in early
15 stages of disease, patient enrichment, screening or
16 enrollment in surrogate endpoint analysis for clinical
17 trials, high resolution of variant tracking, combining
18 plasma and tissue analyses.

19 Q. And the next line, under the bullet list that
20 you just read, it says:

21 "Register to learn how liquid biopsy assays go
22 beyond recurrence detection in post-diagnostic [sic]
23 cancer management."

24 Do you see that?

25 MR. LUMAN: Mischaracterizes the document.

1 THE DEPONENT: I do.

2 MR. NAINI: I'm sorry. Let me repeat it in case
3 I read it incorrectly.

4 The line from the document states:

5 "Register to learn how liquid biopsy assays go
6 beyond recurrence detection in post-diagnostic cancer
7 management."

8 MR. LUMAN: Mischaracterizes document. It's
9 post-diagnosis, not post-diagnostics.

10 MR. NAINI: Okay. Post-diagnosis cancer
11 management.

12 THE DEPONENT: I do see that.

13 BY MR. NAINI:

14 Q. And is that what you sought to teach in this
15 webinar?

16 A. I believe so. I don't know -- let me --
17 actually, let me re -- I don't know if I was necessarily
18 teaching. I don't know if "teaching" is the right word.
19 I think it was more of a discussion of how NeXT Personal
20 can go beyond recurrence detection.

21 Q. Okay?

22 A. In the post-diagnosis space.

23 Q. Okay. So the participants could register to
24 learn that, but you were not teaching that, you were
25 discussing?

1 A. In my characterization, yes.

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12 Q. And are -- are you familiar with Xtalks in terms
13 of, you know, what the -- what the target audience is --
14 well, let's make it specific.

15 Do you know what the target audience was for
16 this particular Xtalk that's the subject of
17 Exhibit 1205?

18 A. I am not entirely sure who the target audience
19 was at that time.

20 Q. Okay. Do you see under the title at the top of
21 the document, it reads:

22 "Life Sciences, Clinical Trials, Drug Discovery
23 & Development, Biomarkers, Laboratory Technology"?

24 Do you see that?

25 A. I do.

1 Q. Does that refresh your memory about who the
2 target audience or audiences were for this Xtalk?

3 A. Well, examining the document now, I can see
4 that. But there are often -- well, not oftentimes, but
5 there are in my experience, which isn't vast, that in
6 that time, that it's simply stated that you are going --
7 you, as in the royal you, if you will, will be speaking,
8 producing a webinar for this particular venue or
9 platform. So it's not always known, you know,
10 specifically who is going to attend.

11 But if I could continue my answer, when I look
12 across life sciences, clinical trials, drug discovery
13 and development, biomarkers, laboratory technology,
14 there is a certain level of heterogeneity in biopharma
15 across different roles. Some people are engaged just in
16 translational research or basic research or bringing new
17 products, you know, clinical trials, I should say, and
18 then more of CDX. So it could be a number of --

19 Q. And by CDX, you're referring to?

20 A. Companion diagnostic.

21 Q. Okay. So these are technical areas in -- in
22 biopharmaceutical research and clinical diagnostics?

23 A. Yes.

24 Q. Okay. You can put that aside.

25 A. Can we --

1 MR. LUMAN: Oh, go ahead.

2 THE DEPONENT: Can I actually just clarify --

3 MR. NAINI: Yes.

4 THE DEPONENT: -- my answer?

5 When you say "technical," not all of them are
6 technical as the way we've been discussing here, which,
7 to my understanding, has been around technology and how
8 technology works. Technical could also extend to, you
9 know, regulatory functions, for example, and how not
10 necessarily tech -- you know, technology is in
11 regulatory, but, you know, there are technicalities in
12 regulatory functions. So I just want to make that
13 distinction.

14 BY MR. NAINI:

15 Q. Did you discuss technicalities in regulatory
16 functions during this webinar?

17 A. I do not recall.

18 Q. Is technicalities in regulatory functions listed
19 as any of the topics that attendees will learn?

20 A. From this document, it does not appear to be so.

21 Q. Okay. You can put that aside.

22 MR. LUMAN: I'm going to object to this document
23 as, under the best evidence rule, it doesn't appear to
24 be an accurate reproduction of the website. For
25 example, there is a heading "Who Should Attend" that

1 doesn't appear to be reproduced in this document.

2 MR. NAINI: I will represent for the record that
3 I printed this document myself and it was what printed
4 when I went to the website on the date at the time that
5 is at the top of the exhibit.

6 I am handing you what I've marked, Mr. Norton,
7 as Exhibit 1206.

8 (Exhibit No. 1206 marked for identification.)

9 MR. NAINI: I will give you a chance to read it,
10 and let me know when you're ready.

11 MR. LUMAN: I will make an objection. This
12 document has a 2022 publication date, and petitioner
13 hasn't established the relevance of this document as to
14 what a person of ordinary skill in the art would have
15 known at the time of the invention of the two patents
16 that are at issue in this two proceedings, and that they
17 haven't established the relevance of it as to -- as to
18 the invention date of the patents-in-suit.

19 THE DEPONENT: Okay.

20 BY MR. NAINI:

21 Q. The -- the title at the top of this document
22 reads:

23 "Abstract 5163: A High Sensitivity,
24 Tumor-Informed Liquid Biopsy Platform, Designed to
25 Detect Minimal Residual Disease" As Part -- "At Part Per

1 Million Resolution."

2 Do you see that, Mr. Norton?

3 A. I do.

4 Q. And it bears a date at the top of
5 June 15th, 2022.

6 A. I see that.

7 Q. And you're listed as one of the coauthors on the
8 list of coauthors.

9 Do you see that?

10 A. I do.

11 Q. The other coauthors were current or former
12 colleagues of yours at Personalis. Is that right?

13 A. Correct.

14 Q. Why are you listed as a coauthor on this
15 document?

16 A. I think to -- similar answer as to the question
17 prior, with regards to reviewing data when presented to
18 me, and to -- in a large group venue, and then also
19 participating editorially after the abstract was
20 written.

21 Q. And to sort of -- we've spoken about Dr. Boyle,
22 the first author on -- on this article previously. He
23 has a Ph.D., right?

24 A. I believe that to be true.

25 Q. And are there other coauthors on here that you

1 know to have either a Ph.D. or M.D.?

2 A. I recognize some, but I'm not sure of all.

3 Q. Okay. Could -- could we just go through each
4 one and let me know if you know each one to have either
5 an M.D. or Ph.D. or both?

6 A. I believe Gabor Bartha has a Ph.D. John Lyle
7 has a Ph.D. I'm not sure about Jason Harris. I believe
8 that Josette Northcott has a Ph.D. I do not have a
9 Ph.D. I believe Rachel Marty Pyke has a Ph.D. I
10 believe Fabio Navarro has a Ph.D. I do not know about
11 Alexandra Stram or Christian Haudenschild or
12 Rose Santiago or Robin Li or Chris Nelson or Yelia Huo
13 or Manju Chinniappa or Qi Zhang or Lloyd Hsu or
14 John West. I believe that Richard Chen has an M.D.

15 Q. Okay. And this is a printout of an -- this is
16 an abstract that corresponds to a poster presentation at
17 scientific meetings. Is that right?

18 A. It appears to be, yes.

19 Q. Okay. And do you have any reason to believe
20 that it isn't?

21 A. I do not.

22 Q. Okay. And which scientific meeting is this?

23 A. This appears to be from AACR.

24 Q. What does AACR stand for?

25 A. American Academy of Cancer Research.

1 Q. Okay. And this -- and this abstract was then
2 published in a journal called Cancer Research, right?

3 A. I believe so.

4 Q. Yeah, it's just right under the list of authors
5 and under author and article information, you see it
6 says "Cancer Research 2022"?

7 A. I do.

8 Q. Okay. And -- and that indicates to you that
9 this was published in Cancer Research, right?

10 A. Yes.

11 Q. And this Exhibit 1206, the abstract here focuses
12 on the high sensitivity of the Personalis NeXT Personal
13 assay, right?

14 A. Yes, it appears to be.

15 Q. Yeah. And it -- and it states that the assay
16 achieves sensitivity down to 1 part per million. That's
17 at the end of the first paragraph.

18 Do you see that?

19 A. I do.

20 Q. Is it fair to say that it is featuring the high
21 sensitivity of the Personalis NeXT Personal test?

22 A. It is fair to say that.

23 Q. And -- and the abstract is focusing on high
24 sensitivity because that's an important performance
25 metric for the test, right?

1 A. Correct.

2 Q. Okay. And you can put that aside.

3 MR. NAINI: And I'm handing now to you what I
4 have marked as Exhibit 1207.

5 (Exhibit No. 1207 marked for identification.)

6 MR. LUMAN: I will note for the record that this
7 document has what appears to be a publication date of
8 2022, which is many years after the filing date of the
9 two patents at issue in the two IPR proceedings, and
10 that petitioner hasn't established a relevance as to
11 what this document would have meant to a person of
12 ordinary skill in the art at the time of the invention.

13 THE DEPONENT: Okay.

14 BY MR. NAINI:

15 Q. Exhibit 1207 is a scientific abstract, right?

16 A. Yes.

17 Q. Yeah. And there are a number of coauthors from
18 a variety of organizations on this abstract, right?

19 A. It appears to be just two organizations.

20 Q. Well, let's see. There's one organization --

21 A. Ah.

22 Q. Go ahead.

23 A. Yeah, I'm sorry. You are right. There are more
24 than two. There are a variety of organizations.

25 Q. Okay. And those organizations are indicated in

1 the upper left of the document as the author
2 affiliations, right?

3 A. Correct.

4 Q. And you're one of the coauthors on this
5 abstract. Is that right?

6 A. I am.

7 Q. And there are authors from Geneos Therapeutics.
8 Is that right?

9 A. Correct.

10 Q. Some other coauthors from Personalis, other than
11 you, right?

12 A. Correct.

13 Q. And there are some authors from the University
14 of Auckland in New Zealand?

15 MR. LUMAN: Objection. Mischaracterizes the
16 document.

17 THE DEPONENT: Correct.

18 BY MR. NAINI:

19 Q. And some -- and a coauthor from the
20 Johns Hopkins Hospital in Baltimore, right?

21 A. Correct.

22 Q. And then another from the Tisch Cancer Institute
23 in New York, right?

24 A. Correct.

25 Q. Abstract was published in 2022 in the Journal of

1 Immunotherapy and Cancer. Is that right?

2 A. It appears so.

3 Q. Okay. Why were you listed as a coauthor on this
4 abstract?

5 A. I believe for the same reasons given prior, that
6 I was presented to and participated in a review of the
7 abstract after it had been written.

8 Q. And your coauthors on this paper include
9 individuals with advanced degrees, such as Ph.D., right?

10 A. I can only speak to people from within my
11 organization. I can't speak to people outside of my
12 organization.

13 Q. Okay. But with respect to the Personalis
14 coauthors, they have either a Ph.D. or an M.D. We can
15 go through them.

16 Gabor Bartha, you indicated previously that he
17 has a Ph.D., right?

18 A. I believe he does.

19 Q. Josette Northcott?

20 A. I believe she does.

21 Q. Yeah. And Richard Chen, you indicated has an
22 M.D.?

23 A. I believe he does.

24 Q. How about John Lyle?

25 A. I believe he has a Ph.D.

1 Q. Okay. And then you, who -- and you do not have
2 a Ph.D.?

3 A. I do not have a Ph.D.

4 Q. Or an M.D.?

5 A. Correct.

6 Q. But you are listed as a coauthor?

7 A. Correct.

8 Q. And those are all the coauthors from Personalis
9 on this document?

10 A. Correct.

11 Q. You don't know if any of the other coauthors
12 from other institutions have an advanced degree?

13 A. I do not.

14 Q. Okay. You can put that aside.
15 Can you take out again your declaration,
16 Exhibit 2035?

17 A. Okay.

18 Q. And if you could turn to paragraph 11.

19 A. Okay.

20 Q. Do you see in paragraph 11, you start the
21 section where you discuss a document that was submitted
22 in the IPR from The Scientist magazine, right? You
23 reference a document, Exhibit 2001?

24 MR. LUMAN: Objection. Form.

25 ///

1 BY MR. NAINI:

2 Q. Right?

3 A. Correct.

4 MR. NAINI: Okay. I will hand you a copy of
5 Exhibit 2001.

6 (Referencing Exhibit 2001.001.)

7 BY MR. NAINI:

8 Q. What is Exhibit 2001?

9 A. Exhibit 2001 is -- sitting in front of me, is a
10 reproduction of Scientist 2022 Top 10 Innovations
11 article.

12 Q. And you reference Exhibit 2001 in your
13 declaration, right?

14 A. I do.

15 Q. And you discuss it in paragraphs 11 through --
16 well, in the -- in the Section II(A) that starts at
17 paragraph 11 in your declaration, right?

18 A. Yes, correct.

19 Q. Okay. So you're familiar with Exhibit 2001,
20 right?

21 A. I am.

22 Q. And you -- did you -- you indicated in your
23 declaration that you were interviewed by The Scientist
24 magazine in connection with the 2022 Top 10 Innovations
25 article, right?

1 A. Correct.

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19 Q. I see. So your first interaction with
20 The Scientist -- your first interaction with respect to
21 this process of the selection of the top 10 innovations
22 of 2022 by The Scientist was your interview by
23 The Scientist magazine that you discuss in your
24 declaration?

25 A. Can you repeat the question, please.

1 Q. Sure. Was your first involvement in the
2 selection of the Personalis NeXT Personal test by
3 The Scientist magazine as one of its top 10 innovations
4 of 2022 the interview by The Scientist magazine of you
5 that you discuss in your declaration?

6 A. It's been a long time. I don't know if that was
7 specifically the first time that I engaged in this
8 process.

9 Q. Do you recall, sitting here today, any
10 involvement by you prior to that interview?

11 A. I don't recall any involvement in this interview
12 process.

13 Q. Are you aware of how The Scientist magazine
14 first contacted Personalis about the consideration of
15 the Personalis test in The Scientist top 10 innovations
16 for 2022?

17 A. I am not aware.

18 Q. Do you know if The Scientist considered --
19 The Scientist magazine considered what to include in --
20 strike that.

21 Do you know if there is a nomination process by
22 which Personalis nominated its test to be considered as
23 a top innovation by The Scientist magazine?

24 A. I -- I don't know.

25 Q. Do you know anything about the process that

1 The Scientist magazine uses to decide what to consider
2 as its top innovations for a particular year?

3 A. I -- I don't. No.

4 Q. Now, in paragraph 11 of your declaration, you
5 wrote that:

6 "The Scientist magazine ranked Personalis's
7 NeXT Personal assay as the top innovation of 2022."

8 Right?

9 A. I did write that.

10 Q. Now, it wasn't selected as the top innovation.
11 Isn't that right?

12 MR. LUMAN: Objection. Mischaracterizes the
13 document.

14 MR. NAINI: Which document?

15 MR. LUMAN: Exhibit 2001.

16 MR. NAINI: Okay.

17 BY MR. NAINI:

18 Q. So was the Personalis NeXT Personal assay
19 selected as the top innovation of 2022 by The Scientist
20 magazine, Mr. Norton?

21 A. It appears in the document in Exhibit X --
22 EX2001 that it is ranked as number 1.

23 Q. Where do you see the rankings?

24 A. I see a 1 on page 2, at the very top.

25 Q. And how have you determined that that is a

1 ranking?

2 A. I infer that through the title of the article,
3 which is "2022 Top 10 Innovations."

4 Q. Okay. But there's no -- it's not called a
5 ranking in Exhibit 2001, is it?

6 A. Give me a moment to review the exhibit again.

7 Q. Take your time. Take your time.

8 A. I do not see the word "ranking" used in the
9 introduction paragraph.

10 Q. If there is anything in the document that you
11 can find that indicates it is a ranking rather than a
12 list of 10 innovations, please point it out to me.

13 A. Okay. Well, I need to read the entire document.

14 Q. Okay.

15 A. So I have inspected the document. I do not see
16 anywhere written within the document that you provided
17 to me that there is any mention of the word "ranking."

18 Q. Yeah. The question was, is there anything in
19 the document that you can find that indicates it is a
20 ranking rather than a list of top innovations?

21 MR. LUMAN: Asked and answered.

22 THE DEPONENT: I don't see anything where it
23 says "ranking."

24 BY MR. NAINI:

25 Q. Beyond the word "ranking," is there anything

1 that you can point me to that indicates that it serves
2 as a ranking?

3 A. Well, I could say -- I infer that it is a
4 ranking based on the top 10 innovations and with the
5 numbers 1 through 10 listed by each of the innovations.

6 Q. Have you --

7 A. And by use of the word "judges" at the end.

8 Q. Okay. And have you considered the innovations
9 listed as numbers 2 through 10 to see if you agree that
10 they are appropriately ranked as 2 through 10?

11 MR. LUMAN: Outside the scope.

12 THE DEPONENT: I have not.

13 BY MR. NAINI:

14 Q. So you don't have an opinion with respect to
15 whether the innovations listed as numbers 2 through 10
16 are numbered 2 through 10 accurately, if those are truly
17 rankings, right?

18 A. I have no opinion on that. I am not a judge for
19 this publication.

20 Q. But you were interviewed by this publication
21 with respect to the NeXT Personalis test, right?

22 A. I was.

23 Q. How were you selected to be the person to
24 interview?

25 A. I don't know how I was selected to be the person

1 to be interviewed for this publication.

2 Q. Did you object to being the person to be
3 interviewed for this publication?

4 A. No.

5 Q. You -- you considered yourself qualified to be
6 the person interviewed for this publication?

7 A. I don't know how somebody would be considered
8 qualified or not to be interviewed by this publication.

9 Q. Did you nominate anyone else at Personalis to be
10 the person that would be interviewed, rather than
11 yourself?

12 A. I did not nominate anybody at Personalis, and I
13 was not responsible for nominating anybody at
14 Personalis.

15 Q. Right. But are you -- you didn't, for example,
16 suggest to your colleagues at Personalis that someone
17 with a Ph.D. should do the interview, right?

18 A. I did not do that.

19 Q. And you didn't suggest to your colleagues at
20 Personalis that someone with an M.D. should do the
21 interview, right?

22 A. I don't believe -- I don't recall specifically,
23 but I don't think I would have done that.

24 Q. And after the interview completed, did you
25 think, oh, someone else with a Ph.D. should have done

1 that interview?

2 A. I don't recall what I thought about it after
3 that.

4 Q. Okay. So you don't recall either way. You
5 don't recall specifically thinking, I should not have
6 been the one to do that interview?

7 MR. LUMAN: Asked and answered.

8 THE DEPONENT: I don't recall.

9 BY MR. NAINI:

10 Q. Do you recall how long the interview was?

11 A. This was a -- over a year ago, I believe, and I
12 do not recall how long the interview lasted.

13 Q. Was it less than an hour?

14 A. I really -- I don't recall.

15 Q. Was it less than a day?

16 A. Well, I believe it was less than a day.

17 Q. Okay.

18 A. Yeah.

19 Q. So assuming a normal workday, it was -- it was
20 less than eight hours?

21 A. Yes. I don't recall spending an entire day with
22 an interview about this.

23 Q. Mm-hmm.

24 A. Yeah.

25 Q. And it was just that one interview. There

1 weren't multiple sessions?

2 A. I don't recall any other sessions.

3 Q. The publication, you indicate in your
4 declaration that The Scientist article was published in
5 December 2022. Does that help you recall when the
6 interview was?

7 A. No. Like I said, this is over a year ago. I
8 don't even remember who won the Super Bowl last year.
9 So I -- it's a long time for me to remember around that
10 specific time in this specific instance.

11 Q. Yeah, I'm just trying to get a feel. They
12 obviously have to do it during 2022 because they's
13 selecting an innovation for 2022. I would think they
14 wouldn't do the interviews in 2021. Is that reasonable?

15 A. I think that's a reasonable thing to say.

16 Q. Okay. So how close in time to the publication
17 in 2022, to the best of your recollection, was the
18 interview likely to be?

19 A. I -- I don't recall specifically how close the
20 interview was to the publication.

21 Q. Okay. Now, in the middle of the paragraph 12,
22 which runs over the page, you write that:

23 "When The Scientist magazine interviewed me, I
24 remember being pressed for time."

25 And the sentence goes on.

1 Why were you pressed for time at the time of the
2 interview?

3 A. I don't remember all the specifics, but what I
4 do remember was that the interviewer had deadlines. And
5 I just remember it being a very quick, get on, you know,
6 speak, and this person has to go kind of thing. So I
7 was pressed for time, yeah.

8 Q. Oh, you were pressed for time during the
9 interview itself. Is that what you mean in your dec --
10 declaration?

11 A. Yes.

12 Q. So does that help you recall approximately how
13 long the interview was?

14 A. Not specifically. Yeah, not specifically the
15 amount of time.

16 Q. So you still think it could have been several
17 hours long?

18 MR. LUMAN: Objection. Mischaracterizes
19 testimony.

20 THE DEPONENT: It was likely not that long.

21 BY MR. NAINI:

22 Q. I'm trying to understand the sentence, though.
23 You said that -- you write here that:

24 "I remember being pressed for time such that I
25 didn't have a chance to confer with members of the

1 Personalis scientific team regarding details of the NeXT
2 Personal assay."

3 What do you mean by that in terms of when you
4 would have wanted a chance to confer?

5 A. With regards to the -- I think what I mean here
6 is with regards to being in the interview itself is
7 being able to pause the interview and go ask somebody
8 within the organization.

9 Q. Okay. So there was no opportunity to take a
10 break during the interview, have a discussion with
11 others at Personalis, and then come back. That's what
12 you mean?

13 A. Yeah, I mean, I don't recall the specifics. I
14 just remember being pressed for -- it was a very quick
15 process.

16 Q. I just want to understand what your declaration
17 means.

18 A. Right, right. I'm trying to explain it to you.

19 Q. Yeah. Were patents discussed with the -- during
20 the interview with The Scientist?

21 A. I don't recall. It's a long time. I don't
22 recall all the specifics of the interview and all the
23 questions that were asked.

24 Q. So you don't recall specifically patents being
25 discussed?

1 A. I don't, no.

2 Q. And did you review any Personalis patents before
3 this interview with The Scientist?

4 A. I don't recall, but it's not likely something
5 that I would do.

6 Q. In the next sentence in paragraph 12 in the
7 middle of page 3, you wrote that:

8 "I have since been informed by members of the
9 Personalis scientific team that the sentence in the
10 article" -- and the sentence goes on.

11 But I have a question about the beginning of the
12 sentence. You can read the whole sentence to yourself.

13 But my question is: Who were the members of the
14 Personalis scientific teams that you are referring to in
15 that sentence?

16 A. I don't recall specifically who those members of
17 the scientific team were. This is approximately a year
18 ago, so I don't remember specific names.

19 Q. Do you recall any names at all?

20 A. No, I do not.

21 Q. Are there any members of the Personalis
22 scientific team that you would have been likely to
23 discuss this topic with?

24 A. As I -- can you be -- what specific topic?

25 Q. The topic that you are addressing in the

1 declaration that you signed under oath?

2 A. Of the -- of this -- of The science --
3 Scientist.

4 Q. The topic of primers and capture probes that you
5 address in paragraph 12 of your declaration?

6 A. Our scientific team, R&D team, is fairly large,
7 and I interact with many of them. So it's hard to say
8 specifically who would have been more likely than others
9 to say something to me about that after -- who informed
10 me about that, yeah.

11 Q. And when you say, "I have since been informed,"
12 when did that informing occur?

13 A. That informing specifically, I don't know. But
14 after the publication was made public.

15 Q. And the publication, was it made public --
16 Exhibit 2001 bears the date of December 12th, 2022,
17 right?

18 A. I believe that to be true.

19 Q. Right. And -- and so you would have been the --
20 when you wrote in your declaration, "I have since been
21 informed by members of the Personalis scientific team,"
22 your best recollection now is that that would have been
23 shortly after the publication of The Scientist magazine
24 that's -- article that's in Exhibit 2001?

25 A. I don't know if it was shortly after or what

1 period of time after, but since -- what I mean is since
2 this December 12th date that it was published in the
3 public domain.

4 Q. But it happened before October 23rd, 2023, when
5 you signed your declaration, right?

6 A. Yes.

7 Q. And since you can't recall it now, it probably
8 wasn't immediately prior to your declaration. Or was
9 it?

10 A. I don't think it was immediately prior to my
11 declaration.

12 Q. Okay. To the best of your recollection, how
13 long before your declaration did the -- did members of
14 the Personalis scientific team inform you about the
15 primers and capture probes issue?

16 A. Prior to the declaration, there is a long period
17 of time between there, so I can't remember specifically,
18 like, when that took place.

19 Q. I'm just asking for your best recollection, not
20 a specific one.

21 Did it happen in September of 2023?

22 A. I can't be specific about any month.

23 Q. So -- so it could have been in September 2023?

24 A. I would say that it was most likely to happen,
25 most likely to happen, within on's quarters worth of

1 time after the publication.

2 Q. That makes sense.

3 So in that sentence that I read the beginning
4 of, I'll read the whole thing now, and then I'll have a
5 question for you.

6 A. Mm-hmm.

7 Q. It says:

8 "I have since been informed by members of the
9 Personalis scientific team that the sentence in the
10 article stating that Personalis's NeXT Personal assay
11 involves," quote, "patient-specific mutations, "bracket,
12 "that," end bracket, "are used to design a panel of
13 primers targeting those regions for sequencing in future
14 blood biopsies," end quote, "is incorrect."

15 So you have been informed that that sentence is
16 incorrect. That's what you're stating in your
17 declaration, right?

18 A. I am.

19 Q. And my question for you now is: Have -- has
20 Personalis corrected that statement in The Scientist
21 magazine article through a press release or a letter to
22 the magazine or in any other form?

23 A. Not to my specific knowledge.

24 Q. Is this something that you could find out?

25 A. I could potentially.

1 Q. Mm-hmm.

2 A. Potentially.

3 Q. So if the company's attorneys asked you to find
4 out if there's been any correction made public prior to
5 this deposition, you would be able to help them find --
6 find out?

7 MR. LUMAN: Hold on. Calls for privileged
8 information. Please don't answer that question.

9 MR. NAINI: I am not asking about any
10 communication. It's a hypothetical.

11 BY MR. NAINI:

12 Q. If you were asked to do that, could you?

13 MR. LUMAN: Objection. Form.

14 MR. NAINI: So now I think I understand there to
15 not be an instruction on privilege.

16 BY MR. NAINI:

17 Q. So could you do that?

18 MR. LUMAN: Can you repeat the question.

19 BY MR. NAINI:

20 Q. Yeah. Could you find out, if asked, whether
21 Personalis has corrected this allegedly erroneous
22 statement in The Scientist article in Exhibit 2001 prior
23 to today?

24 A. I could potentially find out.

25 Q. What would you do to find out?

1 A. What I would likely do is go to the website,
2 thescientist.com website, the article itself, to see if
3 that specific word had been changed.

4 Q. And is there anything else you would do to check
5 whether there -- whether a correction had been made?

6 A. So my role within Personalis is not focused on
7 interactions with the media, and there are other people
8 that are hired to do these types of things.

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24 Q. Okay. In the next sentence, you wrote, in
25 paragraph 12:

1 "I have been informed that the NeXT Personal
2 assay involves patient-specific mutations that are used
3 to design a panel of capture probes targeting regions
4 for sequencing in future blood biopsies."

5 Did I read that correctly?

6 A. Yes.

7 Q. Who informed you of that?

8 A. I can't -- I can't recall who informed me of
9 that.

10 Q. Was it the same people who -- are you referring
11 to the same people that you're referring to when you
12 wrote in the prior sentence, "I have since been informed
13 by members of the Personalis scientific team"?

14 A. It is likely the same people that informed me
15 that if we do not use primers, we use capture probes.

16 Q. Could it have been a different set of people?

17 A. I really don't know. It's been a long time.

18 Q. And the next sentence reads:

19 "I have been informed that capture probes are
20 nucleic acid sequences that hybridizes" -- I think
21 that's a typo -- to target DNA, either in solution or on
22 a solid support, so that one can physically capture and
23 isolate the targeted DNA."

24 Do you see that sentence?

25 A. I do.

1 Q. Who informed you of that?

2 A. I don't recall specifically who informed me of
3 that.

4 Q. Is it the same people that you were informed by
5 in the prior sentences in paragraph 12?

6 A. It's possible it could be the same people.

7 Q. Is it possible that it could have been
8 attorneys?

9 MR. LUMAN: Please hold on. I'd like you to
10 answer that question if you can do it without revealing
11 attorney-client privileged communications.

12 MR. NAINI: Just to be clear, this is a
13 statement in his declaration, that he's been informed.
14 I simply want to know who informed him of the thing
15 that's written in his declaration.

16 MR. LUMAN: Well --

17 MR. NAINI: No privilege can attach to the
18 identity of that person.

19 MR. LUMAN: I disagree with that.

20 MR. NAINI: Okay. You can instruct or not, but
21 I do not believe there's a privilege here. And we'll
22 take it up if you instruct.

23 MR. LUMAN: I'd like you to answer that question
24 if you can without revealing any attorney-client
25 privileged information.

1 THE DEPONENT: It is possible -- actually, could
2 you -- I'm sorry. Strike that.

3 Can you please repeat the question.

4 BY MR. NAINI:

5 Q. Absolutely. Is it possible that it could have
6 been attorneys?

7 MR. LUMAN: Same instruction.

8 BY MR. NAINI:

9 Q. Let me ask the complete question so it's compact
10 on the transcript.

11 A. Okay.

12 Q. The sentence at the bottom of page 3 of your
13 declaration in paragraph 12, that runs over onto page 4,
14 states:

15 "I have been informed that capture probes are
16 nucleic acid sequences that hybridizes to target DNA,
17 either in solution or on a solid support, so that one
18 can physically capture and isolate the targeted DNA."

19 Do you see that sentence?

20 A. I do.

21 Q. Who informed you of that?

22 A. I don't remember specifically who informed me of
23 that.

24 Q. Could -- was it the members of the Personalis
25 scientific team that you referenced earlier in

1 paragraph 12?

2 A. I don't remember specifically. But it is more
3 than likely that it is those R&D team members that I
4 referenced earlier in the declaration.

5 Q. Did -- did any attorneys inform you of that?

6 MR. LUMAN: Hold on.

7 MR. MOORE: That's got to -- yeah.

8 MR. LUMAN: Yeah.

9 MR. NAINI: Just privilege log, right? It's a
10 sentence in his declaration, right? I'm asking for
11 identities, that's all. And I'm not asking about
12 anything more about the conversation.

13 MR. MOORE: Yeah. But you have changed it
14 from -- you're now asking him for the list of people who
15 may have said that to him.

16 MR. NAINI: I'm asking for his recollection
17 about who informed him about a sentence that is in his
18 declaration that says "I have been informed."

19 MR. LUMAN: Right. And he has already testified
20 that he doesn't remember. But now you're asking a
21 specific question of did the attorneys tell you that.
22 He's already testified he doesn't remember. But that
23 specific question, did your attorneys tell you that,
24 that is a --

25 MR. MOORE: Mm-hmm.

1 MR. LUMAN: That's asked for privileged content.

2 MR. NAINI: That mischaracterize his testimony.
3 He says that he can't remember specifically. He's
4 saying that it was most likely members of the Personalis
5 scientific team. Now I'm asking, was he also informed
6 of that by attorneys, yes or no.

7 MR. LUMAN: Well, I'll instruct the witness to
8 only answer that question to the extent he can do so
9 without revealing attorney-client communications.

10 MR. NAINI: And, again, I'm only asking for
11 "yes" or "no." That's not going to reveal any
12 communications.

13 THE DEPONENT: Mm-hmm. I can't give you a yes
14 or no. All I can say is I can't remember specifically.
15 BY MR. NAINI:

16 Q. So you don't remember either way?

17 A. I'm saying that I don't remember either way, but
18 it's most likely that it was somebody from an R&D team
19 member, which I have stated here.

20 Q. But you don't know specifically today that it
21 did not include attorneys that informed you of that?

22 A. I'm just trying to recall. I mean, this is such
23 a long time ago.

24 Q. It was within the last year, right?

25 A. Yes.

1 Q. Mr. Norton, just to be clear?

2 A. Yeah, yes, a year is a long time.

3 Q. Well, it depends. This is an important issue,
4 right?

5 A. Sure.

6 MR. LUMAN: There's no question pending.

7 MR. NAINI: There is.

8 MR. LUMAN: Could you repeat the question,
9 please.

10 BY MR. NAINI:

11 Q. You don't know specifically today that it did
12 not include attorneys that informed you of that, right?

13 A. I have written my declaration that the R&D team
14 informed me of this. I can't remember specifically who
15 from the R&D team informed me of this. I do not recall
16 if an attorney that worked, you know, for the company
17 informed me at any given time or not.

18 Q. Thank you. Let's move to the next page of your
19 declaration, paragraph 13. I won't read this into the
20 record because your declaration is an exhibit. But
21 paragraph 13 sets forth, and you state that you
22 understand, that the board has determined that a person
23 of ordinary skill in the art related to the '394 and the
24 '033 patents would have had the following credentials at
25 the time that we mentioned in the 2012-2013 timeframe.

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1 And then there are four enumerated credentials that are
2 listed after that sentence.

3 Do you see that?

4 A. I do.

5 Q. Okay. And again, in answering any of my
6 questions, if you want time to review paragraph 13
7 carefully, please do so.

8 A. Okay.

9 Q. The next sentence that you write is:

10 "I am not a person of ordinary skill in the
11 art."

12 Do you see that?

13 A. I do.

14 Q. And then you write:

15 "For example, I do not have an advanced degree,
16 such as an M.D. or the equivalent of a Ph.D. in a life
17 or physical sciences, engineering, or mathematics
18 discipline."

19 Do you see where you wrote that?

20 A. I do.

21 Q. And there you're essentially referring to No. 1
22 in the list of four credentials, it's called, or
23 criteria, for a person of ordinary skill, right?

24 A. Right, in that example that I give, yes.

25 Q. Right. So -- so that's what the board has

1 determined that a person of ordinary skill has in terms
2 of qualifications, right?

3 A. I was told that.

4 Q. You write. Okay.

5 And -- and you write, for example, you don't
6 have an M.D. or the equivalent of a Ph.D. in a life or
7 physical sciences or engineering or mathematics
8 discipline, right?

9 A. I'm sorry can you repeat that.

10 Q. You -- I'm just repeating the last sentence in
11 paragraph 13, where you call that as an example of
12 something that you do not have from the list of
13 credentials about what a person of ordinary skill in the
14 art has.

15 A. That's correct.

16 Q. Okay. I just want to understand, is there
17 anything else in the list of credentials that the board
18 has determined a person of ordinary skill in the art has
19 that you do not have?

20 So we've already established that it's your
21 opinion that you do not have an advanced degree such as
22 M.D. or the equivalent of a Ph.D. in the life or
23 physical sciences, engineering, or mathematics
24 discipline. That's number one in the last -- in
25 paragraph 13. Now I want you to look at numbers 2, 3,

1 and 4, and tell me, is there anything in there that you
2 believe you do not have?

3 A. Well, at the time of the invention in the 2012
4 to 2013 timeframe, specifically in that timeframe, I did
5 not have a great understanding of various sequencing and
6 next generation sequencing method. I just -- for
7 context, I just started working at Illumina at that
8 time, and as we have established earlier, in my
9 experience, I did not work in genomics services or
10 sequencing industry. So I was just at this point in
11 time learning about specifically Illumina sequencing.
12 So I did not have a large understanding, certainly not
13 so around sample preparation methods, target enrichment
14 methods, bioinformatic methods for interpreting
15 sequencing data, or any methods for identifying genetic
16 variance in the sample. I just -- nowhere in my
17 education nor in my experience did I have any of that.

18 At the time of the invention from 2012 to 2013,
19 I did not have an understanding of clinical applications
20 of sequencing technology to conditions associated with
21 nucleic acid variation, such as cancer, NITP, or
22 transplant rejection.

23 In the time of the invention from 2012 to 2013,
24 I did not have an understanding of cancer biology as it
25 relates to mutations associated with tumor diagnosis,

1 progression, and treatment, as well as awareness of the
2 various types of mutations that can occur in and
3 influence the course of a patient's cancer.

4 Q. Okay. Now, in late 2022, at around the time of
5 your interview with The Scientist magazine -- you know,
6 mid to late 2022 is when -- when it likely happened.

7 A. Mm-hmm.

8 Q. At that time, you still had not earned an
9 advanced degree as set forth in criteria 1, correct?

10 A. Correct.

11 Q. Okay. Now, my question is: Did you at that
12 time possess any of the criteria in 2, 3, or 4 in the
13 enumerated list in paragraph 13?

14 A. Well, I think in order to be able to do my job
15 that there is a certain level of understanding that's
16 required in -- you know, to understand sequencing
17 technology, some of the other things that I listed here,
18 clinical applications, you know, understanding at least
19 some tertiary or cursory understanding of how cancer
20 biology works. But in no way have I ever gotten into a
21 lab to run an experiment, to design a Capture Pro based
22 panel. I have never operated a sequencer. I don't even
23 have badge access to our labs, so. But through -- you
24 know, if I want to advance my career, which I think
25 everybody does, to some extent, I need to know something

1 in the market or I can't do my job effectively.

2 Q. Right. I agree with that statement. We should
3 all keep learning as we -- as we go on in our careers.

4 My question now is about, to the extent you
5 recall, who the members of the Personalis scientific
6 team were who informed you of various things that you
7 set forth in paragraph 12. Were they -- were they
8 persons of ordinary skill in the art in the 2012 to 2013
9 timeframe?

10 MR. LUMAN: Objection. Form.

11 MR. MOORE: Yeah. Also calls for expert
12 testimony.

13 MR. LUMAN: And calls for expert testimony.

14 MR. NAINI: Well, he can evaluate himself. So
15 I'm now asking him to evaluate others that he has
16 interacted with.

17 MR. LUMAN: Same objections.

18 THE DEPONENT: Can you repeat the question,
19 please.

20 BY MR. NAINI:

21 Q. Yeah. So we went through a series of questions
22 about -- about why you consider yourself not to be a
23 person of ordinary skill in the art at the time of the
24 alleged invention in 2012-2013. Then we discussed 2022
25 as well, you know, what your understandings were at that

1 time and what degrees you had.

2 Now I want to understand the same questions with
3 respect to the members of the Personalis scientific team
4 who you say in paragraph 12 of your declaration informed
5 you of the things that you set forth in paragraph 12.

6 A. Mm-hmm.

7 Q. Were they persons of ordinary skill in the art
8 in 2012 -- in the 2012-2013 timeframe? Did they have
9 these qualifications?

10 MR. LUMAN: Objection. Form. Calls for expert
11 testimony.

12 THE DEPONENT: I can't remember specifically who
13 told me, who informed me, of this. So if I could
14 speculate, most of the folks that -- many of the folks
15 that Personalis hires into the R&D team are Ph.D. level,
16 so it is likely that somebody with a Ph.D. level who is
17 a person of ordinary skill in the art, it is likely that
18 they informed me.

19 BY MR. NAINI:

20 Q. Mm-hmm. So -- so they both have the advanced
21 degree that's in number 1, and then they have the
22 understandings that are set forth in numbers 2, 3, and
23 4?

24 MR. LUMAN: Same objections.

25 ///

1 BY MR. NAINI:

2 Q. Is that a fair summary of what you just said?

3 MR. LUMAN: Same objections.

4 THE DEPONENT: Not necessarily, no.

5 BY MR. NAINI:

6 Q. Okay. How is that not fair?

7 A. Number 1 is a -- it is likely those are the
8 people that I spoke to that have advanced degrees that
9 informed me of that. But also, I don't know them well
10 enough to know if they meet the criteria for 2, 3, and 4
11 as well.

12 Q. So I'm -- so I'm trying to understand, if -- if
13 you don't know whether they're qualified as persons of
14 ordinary skill in the art or not, whether -- why you set
15 forth what they informed you of in paragraph 12.

16 MR. LUMAN: Objection. Form.

17 THE DEPONENT: I'm sorry. I don't quite
18 understand the question.

19 BY MR. NAINI:

20 Q. Yeah. Well, so in paragraph 12 you say that you
21 have been informed of various things, and you have told
22 us who informed you of those things, not specifically,
23 but you state here, there were members of the Personalis
24 scientific team, and we discussed other individuals who
25 may or may not have informed you of various things that

1 you discussed in paragraph 12.

2 My question now is: If -- if you don't know
3 whether they were persons of ordinary skill in the art,
4 why are you telling us in paragraph 12 what they
5 informed you of?

6 MR. LUMAN: Mischaracterizes testimony.

7 THE DEPONENT: Most of the folks in the
8 Personalis scientific team that I interact with are
9 people that are assay developers, and my understanding
10 is that some of them, if not most or all of them, are at
11 Ph.D. level. So it is likely that the people that
12 informed me satisfy at least number and are persons of
13 ordinary skill in the art.

14 BY MR. NAINI:

15 Q. Well, how about numbers 2, 3, and 4?

16 MR. LUMAN: Objection. Calls for expert
17 testimony.

18 THE DEPONENT: I think to be effective at their
19 job -- and this is -- again, is probably -- requires
20 somebody else to comment further, but -- but they need
21 to have understanding of the various sequencing and next
22 generation sequencing methods, sample prep methods,
23 target enrichment methods, bioinformatic methods for
24 interpreting sequencing data, et cetera, as listed in
25 number 2, they need to have an understanding of the

1 clinical applications of the sequencing technology, and
2 also have an understanding of cancer biology, et cetera.

3 MR. LUMAN: We have been going for about an hour
4 and a half.

5 MR. NAINI: Let me just finish this line, and
6 then we'll break.

7 BY MR. NAINI:

8 Q. In preparing your declaration, Exhibit 2035, did
9 you check whether the people that informed you of the
10 things that you state in paragraph 12 were persons of
11 ordinary skill in the art or not?

12 MR. LUMAN: Calls for expert testimony.

13 THE DEPONENT: Can you repeat the question,
14 please.

15 BY MR. NAINI:

16 Q. In preparing your declaration, Exhibit 2035, did
17 you check whether the people who informed you of the
18 things that you state in paragraph 12 were persons of
19 ordinary skill in the art or not?

20 MR. LUMAN: Calls for expert testimony.

21 THE DEPONENT: I did not specifically in
22 preparation for my declaration.

23 BY MR. NAINI:

24 Q. And you haven't checked at any time. Isn't that
25 right?

1 A. No. In writing this declaration, I did not.

2 Q. And at any time, whether writing the declaration

3 or not, you -- you have not checked, right?

4 A. I can't recall if I have checked or not over the

5 years.

6 Q. You didn't check it since writing your

7 declaration, right?

8 A. I did not.

9 MR. NAINI: We can take a break.

10 (A recess transpires.)

11 BY MR. NAINI:

12 Q. If I could -- you have your declaration in front

13 of you, I see, Exhibit 2035?

14 A. I do.

15 Q. Now, on the front page, you see -- we've been

16 discussing today the declaration that you submitted for

17 the two IPR matters indicated on the front page that

18 concern the '394 patent and the '033 patent, right?

19 A. Correct.

20 Q. Okay. And are you aware that there are other

21 IPR proceedings that are related to the IPR proceedings

22 for the '394 patent and the '033 patent?

23 A. I am not aware of all the -- the extent of the

24 patent litigation.

25 Q. Okay. So you're not aware of IPR

1 No. 2023-00545 -- this isn't written down on that
2 document.

3 A. Mm-hmm.

4 Q. IPR 2023-00545 that concerns US Patent
5 No. 11,299,783?

6 A. I am not aware of those, no.

7 Q. Okay. And are you aware of IPR 2023-00456
8 concerning US Patent No. 10,450,611?

9 A. I'm not aware of those either.

10 Q. Okay. So is it correct, then, that you're not
11 aware that your declaration that is in front of you,
12 Exhibit 2035, was also submitted in those two other IPR
13 cases that I -- that I just enumerated concerning the
14 '611 patent and the '783 patent?

15 A. Yeah, I am not aware of the extent of the patent
16 litigation.

17 Q. You weren't asked for permission for your
18 declaration to be submitted in those other IPRs?

19 A. I honestly don't recall if it was or wasn't.

20 Q. If it had been submitted in the last month,
21 would you recall if you had been asked for permission?

22 A. Likely. But I just don't recall. It just
23 didn't rise to the top for me.

24 Q. During any of the breaks today, did you discuss
25 the substance of your testimony with your attorneys?

1 A. I did not.

2 MR. NAINI: I don't have any other questions at
3 this time.

4 MR. LUMAN: We don't have any additional
5 questions either.

6 (Proceeding Concludes at 2:00 p.m.)

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REPORTER'S CERTIFICATE

STATE OF CALIFORNIA) ss.

I, DEREK L. HOAGLAND, CSR #13445, State of California,
do hereby certify:

That prior to being examined, the witness named in the
foregoing proceeding was by me sworn to testify to the
truth, the whole truth and nothing but the truth;

That said proceeding was taken down by me by stenotype
at the time and place therein stated and thereafter
transcribed under my direction into computerized
transcription.

I further certify that I am not of counsel nor attorney
for nor related to the parties hereto, nor am I in any
way interested in the outcome of this action.

In compliance with section 8016 of the Business and
Professions Code, I certify under penalty of perjury
that I am a certified shorthand reporter with license
number 13445 in full force and effect.

Witness my hand this 21st day of November, 2023.

<%32525,Signature%>

DEREK L. HOAGLAND, CSR #13445

ERRATA SHEET

Case Name: *Foresight Diagnostics Inc. v. Personalis, Inc.*

Date: November 21, 2023

Deponent: Daniel Norton

Page(s)	Line(s)	Change	Reason
19	6	“Accompanying.” Not “company”	Misspelling
19	6	“Matched.” Not “match”	Misspelling
19	13	“This is correct.” Not “that is good.”	Incorrect word used
19	16	“NeXT Personal assay.” Not “next personal assay”	Capitalization—product name
19	23	“Variants.” Not “variance”	misspelling
23	22	“Clarify the question.” Not “clarifying question”	misspelling
26	18	“Positives.” Not “positives positives”	Duplicated word.
31	15	“Limit of detection.” Not “limited detection”	misspelling
35	21	“Variants.” Not “variance”	misspelling
35	23	“Limit of.” Not “limitive.”	misspelling
36	11	“Orderable.” Not “orable”	Misspelling
39	1	“RECIST.” Not “resist”	Misspelling
52	5	“Managed.” Not “manage”	Misspelling
53	24	“Project” Not “product”	Incorrect word / misspelling
55	16	Period after “specifically”	Setting correct representation of how response was said.
55	17	New sentence – capital “I” in “Its.” Not “its”	Setting correct representation of how response was said.
76	7	“Establishing as prior.” Not “Establishing his prior”	Misspelling
78	24	“Bases.” Not “basis”	Misspelling
88	23	“Other <i>potential people</i> ” Not “ <i>orthopedic people</i> ”	Incorrect word / misspelling

Page(s)	Line(s)	Change	Reason
96	12	“secure” was not used, and does not make sense here. Remove.	Incorrect transcription
103	11	“Alexander.” Not “Alexandra”	Misspelling
122	25	“One’s.” Not “on’s”	Misspelling
116	22	“interviewer.” Not “interview”	Misspelling
134	6	“Methods.” Not “method”	Misspelling
134	13	“Targeted” Not “target”	Misspelling
134	21	“NIPT.” Not “NITP”	Misspelling
135	21	“to design a capture probe based panel.” Not “to design a Capture Pro panel”	Incorrect transcription
139	12	“Number 1 and.” Not “number and”	Incorrect transcription

Dated: December 13, 2023

Daniel S. Norton

Dan Norton

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EXHIBIT 1

ERRATA SHEET

Case Name: *Foresight Diagnostics Inc. v. Personalis, Inc.*

Date: November 21, 2023

Deponent: Daniel Norton

Page(s)	Line(s)	Change	Reason
19	6	“Accompanying.” Not “company”	Misspelling
19	6	“Matched.” Not “match”	Misspelling
19	13	“This is correct.” Not “that is good.”	Incorrect word used
19	16	“NeXT Personal assay.” Not “next personal assay”	Capitalization—product name
19	23	“Variants.” Not “variance”	misspelling
23	22	“Clarify the question.” Not “clarifying question”	misspelling
26	18	“Positives.” Not “positives positives”	Duplicated word.
31	15	“Limit of detection.” Not “limited detection”	misspelling
35	21	“Variants.” Not “variance”	misspelling
35	23	“Limit of.” Not “limitive.”	misspelling
36	11	“Orderable.” Not “orable”	Misspelling
39	1	“RECIST.” Not “resist”	Misspelling
52	5	“Managed.” Not “manage”	Misspelling
53	24	“Project” Not “product”	Incorrect word / misspelling
55	16	Period after “specifically”	Setting correct representation of how response was said.
55	17	New sentence – capital “I” in “Its.” Not “its”	Setting correct representation of how response was said.
76	7	“Establishing as prior.” Not “Establishing his prior”	Misspelling
78	24	“Bases.” Not “basis”	Misspelling
88	23	“Other <i>potential people</i> ” Not “ <i>orthopedic people</i> ”	Incorrect word / misspelling

Page(s)	Line(s)	Change	Reason
96	12	“secure” was not used, and does not make sense here. Remove.	Incorrect transcription
103	11	“Alexander.” Not “Alexandra”	Misspelling
122	25	“One’s.” Not “on’s”	Misspelling
116	22	“interviewer.” Not “interview”	Misspelling
134	6	“Methods.” Not “method”	Misspelling
134	13	“Targeted” Not “target”	Misspelling
134	21	“NIPT.” Not “NITP”	Misspelling
135	21	“to design a capture probe based panel.” Not “to design a Capture Pro panel”	Incorrect transcription
139	12	“Number 1 and.” Not “number and”	Incorrect transcription

Dated: December 13, 2023

Daniel S. Norton

Dan Norton