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IN THE UNITED STATES DISTRICT COURT  
IN AND FOR THE DISTRICT OF DELAWARE

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PACIFIC BIOSCIENCES OF CALIFORNIA,  
INC., : CIVIL ACTION  
Plaintiff, :  
v : NO. 17-275-LPS  
OXFORD NANOPORE TECHNOLOGIES, INC., : and  
and OXFORD NANOPORE TECHNOLOGIES, LTD., :  
Defendants. : NO. 17-1353-LPS

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Wilmington, Delaware  
Thursday, July 30, 2020  
*Judge's Opinion*

- - -

BEFORE: HONORABLE LEONARD P. STARK, Chief Judge

APPEARANCES: - - -

FARNAN, LLP  
BY: BRIAN E. FARNAN, ESQ.

and

WEIL GOTSHAL & MANGES, LLP  
BY: EDWARD R. REINES, ESQ.,  
DEREK C. WALTER, ESQ.,  
ROBERT S. MAGEE, ESQ., and  
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Counsel for Plaintiff

MORRIS NICHOLS ARSHT & TUNNELL, LLP  
BY: JACK B. BLUMENFELD, ESQ., and  
JENNIFER YING, ESQ.

and

Brian P. Gaffigan  
Official Court Reporter

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**APPEARANCES: (Continued)**

**BAKER BOTTS, LLP**  
**BY: STEPHEN M. HASH, ESQ.,**  
**(Austin, Texas)**

**and**

**BAKER BOTTS, LLP**  
**BY: ELIZABETH DURHAM FLANNERY, ESQ., and**  
**MICHAEL HAWES, ESQ.**  
**(Houston, Texas)**

**Counsel for Defendants**

**- oOo -**

**P R O C E E D I N G S**

**(REPORTER'S NOTE: The following judge's opinion**  
**was held remotely, beginning at 5:02 p.m.)**

1 THE COURT: Good afternoon, everybody. This  
2 Judge Stark. Who is there for the plaintiff, please?

3 MR. FARNAN: Good afternoon, Your Honor. It's  
4 Brian Farnan on behalf of the plaintiff. And with me is  
5 Edward Reines, Derek Walter, Robert McGee, and Sean Chi,  
6 from Weil Gotshal.

7 THE COURT: Okay. Thank you. And who is there  
8 for defendants?

9 MS. YING: Good afternoon, Your Honor. This is  
10 Jennifer Ying from Morris Nichols Arsht & Tunnell. I think  
11 with me on the line is Jack Blumenfeld; and we also have  
12 from Baker Botts, Michael Hawes, Stephen Hash, and Liz  
13 Flannery.

14 THE COURT: Okay. Good afternoon to all of you.  
15 Our court reporter is of course listening in. I  
16 will note for the record it is our case of Pacific  
17 Biosciences of Inc. versus Oxford Nanopore Technologies,  
18 Inc. It's two cases, Civil Action Nos. 17-275 and 17-1353.

19 This is the time that I set, and I am prepared  
20 to give you my rulings on the motions that were argued  
21 earlier this week.

22 I will ask if you could all put me on mute  
23 because I am going to talk for quite a bit. I have  
24 carefully reviewed, of course, everything that occurred at  
25 trial, your detailed briefing, the full record, the

1 arguments that were made earlier this week, and it is going  
2 to take me awhile to explain the basis for my decisions.  
3 And I have been able to decide all of the issues presented,  
4 but I won't keep you in any suspense.

5 My decision with respect to both of the motions  
6 is to deny the motions. So I will be denying both motions  
7 in full. And let me try my best to explain why.

8 First, we have, of course, the plaintiff  
9 PacBio's motion for judgment as a matter of law that the  
10 patents are -- three of the patents are not invalid or  
11 alternatively for a new trial.

12 First, just a bit on the legal standard.

13 "To prevail on a motion for judgment as a matter  
14 of law after losing a jury trial," which is the case here  
15 with respect to the issues on which PacBio has moved, "a  
16 party must show that the jury's findings, presumed or  
17 express, are not supported by substantial evidence or if  
18 they were, that the logical conclusion implied by the jury's  
19 verdict cannot in law be supported by those findings."

20 That's a quote from the Federal Circuit's  
21 decision in *Pannu v Iolab* in 1998.

22 "Further, the Court must give the verdict winner  
23 the benefit of all logical inferences that could be drawn  
24 from the evidence presented, resolve all conflicts in the  
25 evidence in the verdict winner's favor and in general view

1 the record in a light most favorable to it, that is, in  
2 favor of the verdict winner."

3 That is a quote with a little bit of my  
4 editorializing for understandability from the Third Circuit  
5 decision of *Williamson* in 1991.

6 So let me turn to the issues raised by PacBio.

7 First, they seek judgment as a matter of law.

8 I'll ask again if you would put me on mute,  
9 please.

10 Judgment as a matter of law that the '400 and  
11 '323 patents are not invalid and that ONT is liable for  
12 infringement or alternatively for a new trial.

13 This is issues directed to enablement.  
14 Enablement is a question of law based on underlying factual  
15 findings. We know that from, among other cases, the *Enzo*  
16 *Life Sciences* case of the Federal Circuit in 2019.

17 Here, there were material factual disputes, and  
18 I must presume that they were resolved by the jury at trial  
19 in favor of ONT. When taking the jury's implicit findings  
20 and adding them to the uncontested evidence related to  
21 enablement, there is substantial evidence to support the  
22 jury's verdict of lack of enablement of the asserted claims  
23 of the '400 and '323 patents.

24 The premises of PacBio's motion are not  
25 persuasive in the post-trial context in which the motion

1 arises. For instance, PacBio emphasizing that ONT expert  
2 Dr. Goldman's testimony on enablement was conclusory and  
3 improperly assumed that a recipe was required to satisfy the  
4 enablement requirement.

5 PacBio further notes that on cross-examination,  
6 Dr. Goldman seems to not know the *Wands* Factors and even  
7 admitted that a person of skill in the art or a POSA could  
8 perform the method of claim 1 of the '400 patent.

9 PacBio might be correct that Dr. Goldman's  
10 testimony by itself would not be the necessary substantial  
11 evidence to support the jury's finding of lack of enablement  
12 of the asserted claims in the '400 and '323 patent.

13 But more important than that is that ONT is  
14 correct that the evidentiary record as a whole, taken in the  
15 light most favorable to ONT as the verdict winner on these  
16 issues, does contain substantial evidence to support the  
17 verdict.

18 The Court must, in evaluating this motion,  
19 consider the entire evidentiary record before the jury, not  
20 just the portions of the record that PacBio highlights.  
21 The jury was instructed to consider all the evidence and  
22 specifically on enablement was not even told that it needed  
23 expert testimony and was not told even with respect to the  
24 *Wands* Factors that it must find all of the *Wands* Factors.  
25 It was instead instructed that these, the *Wands* Factors,

1 were factors you may consider in determining whether making  
2 the invention would require undue experimentation. That's  
3 from the jury instruction.

4 There is much evidence that the jury could  
5 have credited beyond just what the plaintiff pointed to to  
6 constitute substantial evidence to support the nonenablement  
7 finding.

8 Among the evidence that the jury could have  
9 credited is what is well and accurately summarized in  
10 defendants' slides that were submitted in connection with  
11 the proceeding the other day. For instance, at slides 25  
12 and 26, 28 through 36, and 42 through 56, all summarizing  
13 evidence presented to the jury which the jury could have  
14 credited.

15 And I will just note parenthetically I do want  
16 the parties to docket, so it will be on the record, their  
17 PowerPoint presentations, the slides I'm referring to now  
18 that were submitted in advance of the hearing on the other  
19 day.

20 For example, ONT accurately and fairly  
21 summarizes in slide 26 and also in its briefing at page 10  
22 how much of the evidence on several of the *Wands* Factors was  
23 uncontested. For example, with respect to Factor 3, the  
24 presence or absence of working examples. Factor 4, the  
25 nature of the invention. Factor 6, the relative skill of

1 those in the art. And Factor 8, the breadth of the claims.

2 Even with respect to Dr. Goldman, he did opine  
3 that a person of ordinary skill in the art could not perform  
4 claim 1 of, for example, the '400 patent.

5 The jury heard Dr. Goldman's direct and redirect  
6 examination as well as his cross-examination, and the jury  
7 was free to credit whatever opinions he expressed, including  
8 the opinion of nonenablement which he did express in front  
9 of the jury as part of his examination.

10 As I go through the rest of this motion, I will  
11 recite additional evidence specifically that the jury could  
12 have credited to find substantial evidence to support the  
13 verdict, the clear and convincing finding of lack of  
14 enablement of the claims of the '400 and the '323 patent.

15 Fundamentally, the jury was free, in light of  
16 the totality of the evidence, to credit Dr. Goldman's  
17 opinions that the patents I'm now discussing were invalid  
18 due to lack of enablement. The jury certainly was free to  
19 credit PacBio's contrary evidence. The jury could have  
20 found that defendants' experts lacked credibility, but the  
21 jury's implicit findings were to credit defendants' expert,  
22 and on a JMOL motion like this, "the Court may not weigh  
23 the evidence, determine the credibility of witnesses or  
24 substitute its version of the facts for the jury's version."

25 And that latter bit was a quote from the Third



1 Circuit in 2009 in the *Fowler* decision.

2 There is no requirement -- contrary to the  
3 suggestion of PacBio, there is no requirement that the expert  
4 himself harmonize what PacBio contends is contradictory  
5 testimony even if, according to one side, that expert makes  
6 an admission against the interest of the party that he is  
7 testifying for.

8 So the fact that one might view the record as one  
9 in which Dr. Goldman made an admission that goes against ONT's  
10 case, and Dr. Goldman himself did not harmonize that admission  
11 or apparent conflict with other testimony he gave, that does  
12 not, in my view, and I have not seen any authority to the  
13 contrary and certainly don't believe PacBio cited any, that  
14 does not in my view equate to a basis for granting the relief  
15 that plaintiff is seeking here.

16 ONT, as a litigant, was free to try to harmonize  
17 all the evidence that the jury heard and try to persuade the  
18 jury to credit the evidence ONT wanted the jury to credit.  
19 And implicitly, ONT was successful in this endeavor.

20 There is also no requirement that every theory  
21 on which the jury may have found, for instance, lack of  
22 enablement, had been articulated in detail by the expert  
23 witnesses themselves.

24 Again, I don't read the authority cited by  
25 PacBio as imposing such a requirement in a jury trial.

1           PacBio relies on the Third Circuit's decision in  
2     *Roebuck* in 1998, *Roebuck vs. Drexel University*, but I think  
3     that case is distinguishable from the situation here.

4           The Third Circuit there recognized the  
5     extraordinary number of inferences that the jury must have  
6     drawn in order to reach the verdict that it did and noted  
7     that a number of arguments upon which the Court there relied  
8     on to uphold the verdict, that is, the District Court, do  
9     not appear to have been made by the litigant at trial.

10          Here, by contrast, the jury could have  
11     reasonably reached a verdict of nonenablement from the  
12     expert evidence, the other evidence, and the theory of  
13     nonenablement that ONT explicitly offered at trial.

14          The theories of nonenablement that ONT presses  
15     in imposing PacBio's motion are all consistent with the  
16     theories of nonenablement pressed at trial.

17          The jury heard evidence, for example, that, when  
18     viewed in the light most favorable to ONT, suggested that at  
19     the time these patents were filed, nanopore sequencing was  
20     a nascent technology, that substantial challenges remained  
21     to developing this technology, that PacBio did not perform  
22     nanopore sequencing, and that PacBio filed patents to block  
23     competition, all of which could have led the jury to  
24     reasonably infer that these patents were not intended to  
25     teach about nanopore sequencing and in the context of all of

1 the evidence, therefore, were not enabling.

2 Other evidence of nonenablement included  
3 Dr. Dessimoz's and Dr. Akeson's testimony that the '400  
4 and '323 patent specification provide no guidance for  
5 determining "N," which is a prerequisite for using the  
6 claimed invention. From this, the jury could reasonably  
7 have concluded that undue experimentation was required to  
8 practice the asserted claims of the '400 and '323 patents.

9 And on this point, I would cite to the *ALZA*  
10 *Corporation* decision of the Federal Circuit in 2010. 603  
11 F.3d at page 941. The Federal Circuit said, "When there is  
12 no disclosure of any specific starting material or of any  
13 of the conditions under which a process can be carried out,  
14 undue experimentation is required."

15 Other evidence of nonenablement included  
16 Dr. Dessimoz and Dr. Fair's testimony that a person of skill  
17 in the art would not know how to determine a template  
18 nucleic acid sequence with the claimed methods because the  
19 patents provided no guidance for remedying signal degeneracy  
20 which, according even to PacBio's Chief Technology Officer,  
21 Dr. Turner, was a key problem in nanopore sequencing that  
22 the patent sought to address.

23 PacBio contends that it presented sufficient  
24 evidence from which a jury could have found that the '400  
25 and '323 patents allowed a person of skill in the art to

1 determine the value of "N." But even if that is true, and  
2 I would note that PacBio's argument here seems to be based  
3 on parts of the specification that were not referenced  
4 during trial, but even if it's true that sufficient evidence  
5 was presented that would have allowed one to uphold a  
6 verdict in favor of PacBio, the issue on this motion is  
7 whether substantial evidence that the jury was free to  
8 credit was presented to support the actual verdict that the  
9 jury returned, which was findings of nonenablement and,  
10 here, that in fact happened and was presented.

11 PacBio analogizes the present situation to  
12 summary judgment cases where courts hold that summary  
13 judgment will not be denied just because a witness who said  
14 one thing in a deposition put in an affidavit usually in  
15 connection with summary judgment briefing contradicting  
16 that earlier deposition testimony.

17 That analogy, in my view, fails here. For  
18 instance, unlike in the *Daubert* decision of the Third  
19 Circuit in 2017, 861 F.3d 382, where the Third Circuit  
20 applied the sham affidavit doctrine, here, ONT did not  
21 offer an affidavit that contradicted Dr. Goldman's earlier  
22 deposition testimony without a satisfactory or plausible  
23 explanation. That is what happened in the *Daubert* case.

24 Here, instead, Dr. Goldman offered what the  
25 plaintiff characterizes as contradictory testimony during

1 trial in front of the jury. The jury saw all of the  
2 testimony from Dr. Goldman, and the jury was free to credit  
3 whichever portions of that testimony it choose to credit.  
4 And implicitly, it choose to credit the portions of that  
5 testimony that it found to be consistent with the overall  
6 record and supporting a verdict of nonenablement.

7 Unlike another case relied on by PacBio,  
8 *ParkerVision*, Federal Circuit (2015), ONT did not rest  
9 its case on Dr. Goldman's unexplained self-contradictory  
10 testimony. Rather, ONT presented substantial evidence  
11 including all of the testimony that I have referenced here  
12 today, all of what was summarized in the various documents  
13 that I have also referenced today, all of that which I find  
14 to be substantial evidence that could have led the jury  
15 reasonably to find the lack of enablement.

16 PacBio is correct that enablement does not  
17 require a patent to contain a recipe or step-by-step  
18 recitation of how to perform the claimed invention but those  
19 points do not alter the outcome on this motion. The Court's  
20 instructions properly conveyed the law of enablement to the  
21 jury, including the important consideration of whether undue  
22 experimentation would have been required by a POSA.

23 ONT and its witnesses did not apply a legally  
24 improper standard for enablement. Even if they had, and  
25 they didn't, the jury was instructed to follow the legal

1 standard that I gave them, and they are presumed to have  
2 done just that.

3 The Court is not called upon, despite the  
4 parties' rhetoric, to decide whether the enablement case  
5 was thin, as PacBio repeatedly asserts, or instead based on  
6 a mountain of evidence, as ONT insists. The issue for me is  
7 simply whether, taking the totality of the evidence in the  
8 light most favorable to ONT as the verdict winner on these  
9 issues, there is or is not substantial evidence to support  
10 a finding by clear and convincing evidence of lack of  
11 enablement.

12 Applying that standard, I conclude that, yes,  
13 there is substantial evidence to support the verdict.  
14 Therefore, I will deny this portion of PacBio's motion.

15 Finally, on this part of the motion, because  
16 substantial evidence supports the jury's conclusion that  
17 the '400 and '323 patents are not enabled, there is no  
18 basis here for granting a new trial on these issues.

19 Turning at slightly less length to the motion  
20 for PacBio for judgment as a matter of law that claims 2 and  
21 12 of the '056 patent are not invalid for lack of enablement  
22 and that ONT is liable for infringement, again, all parts of  
23 the motions are denied. This part is denied.

24 Many of the arguments that PacBio makes in  
25 connection with the nonenablement verdict for the '056

1 patent were already made, were also made for the '400 and  
2 '323 patents. Therefore, I have already addressed many of  
3 PacBio's arguments in that context. I will not repeat  
4 myself. I incorporate what I had already said to this point  
5 about the enablement verdict. And to the extent PacBio has  
6 made the same arguments directed to the '056, my view of  
7 those arguments are the same as I just expressed with  
8 respect to the '400 and '323 patents.

9 PacBio's motion as directed to the '056 patent  
10 is focused on the testimony of Dr. Ha, who, according to  
11 PacBio, admitted that a POSA would not -- I'm sorry,  
12 admitted that a POSA would know how to perform Step 1(e) of  
13 the '056 patent and didn't consider the relevant Akeson I  
14 reference and didn't address the undue experimentation  
15 factors. Those are the arguments PacBio principally makes  
16 with respect to the '056 patent.

17 The Court is not persuaded by these arguments.  
18 Instead, the Court agrees with ONT that the jury could have  
19 reasonably interpreted Dr. Ha's testimony as not relating to  
20 the practice of Step 1(e) in the nanopore system of the  
21 asserted claim but instead "by itself, that is, Step 1(e) in  
22 a vacuum."

23 This may not have been the most reasonable  
24 interpretation of Dr. Ha's testimony, but it is not an  
25 unreasonable interpretation. And the Court is obligated

1 under the law to credit any reasonable inference the jury  
2 may have drawn in ONT's favor, including this one.

3 The jury was not required to view Dr. Ha's  
4 testimony in light of the overall record. It was not  
5 required to view Dr. Ha's testimony as the square admission  
6 that PacBio characterizes it as being.

7 Additionally, the issue for the Court is  
8 whether the record as a whole, and not just Dr. Ha, contains  
9 substantial evidence to support the jury's verdict of  
10 nonenablement with respect to the claims of the '056 patent.  
11 And in my view, it does. As ONT shows, both parties'  
12 witnesses offered testimony that when viewed in a light  
13 most favorable to ONT could have lead a reasonable jury to  
14 conclude that obtaining an enzyme that performs two kinetic  
15 steps required undue experimentation due to ample time and  
16 resources needed to do so and the lack of guidance from the  
17 specification.

18 For that, I would refer you to, among other  
19 things, the evidence cited at D.I. 499 at pages 6 to 9.

20 Because substantial evidence supports the jury's  
21 conclusion that the asserted claims of the '056 patent are  
22 not enabled, there is no basis to grant a new trial on this  
23 issue. That portion of the motion is denied.

24 That takes me next to the request by PacBio  
25 for a new trial on all claims due to ONT's prejudicial



1 COVID-related comments.

2 This portion of the motion is denied. PacBio  
3 had failed to show that ONT's statements during opening or  
4 at any other time during trial were so prejudicial as to  
5 affect the fairness of the trial and thereby cause manifest  
6 injustice. That's the standard applicable here.

7 And this can be found in, among other places,  
8 the *ISCO International* decision of this court in 2003.

9 There has been no finding of a MIL or motion  
10 in limine violation after opening statement, including no  
11 finding of a MIL violation during closing argument. Nor  
12 does PacBio show in its post-trial briefing or did it show  
13 in its argument the other day that there were MIL violations  
14 after the opening statement.

15 Further, PacBio provides no persuasive reason  
16 to conclude that ONT's statements probably influenced the  
17 jury's verdict, which is another part of PacBio's burden on  
18 this portion of its motion. For that, you can find the  
19 applicable legal standard in the Third Circuit's 1992  
20 decision in *Fineman*; in 1995, decision in *Blanche Road*.

21 PacBio points to the jury's findings on lack  
22 of enablement of the asserted claims of the '400, '323 and  
23 '056 patents as support for why it should get a new trial  
24 based on COVID-related comments of the defendant, arguing  
25 that those verdicts cannot be squared with what PacBio

1 characterizes as ONT's expert expending only two sentences  
2 on the subject and not being able to identify any supporting  
3 evidence. That's from PacBio's briefing.

4 But as I have already explained, there was much  
5 other substantial evidence that supported the nonenablement  
6 verdict. So that argument is not meritorious.

7 PacBio implies that the jury was improperly  
8 persuaded to try to preserve ONT's role in the fight against  
9 COVID-19, but that contention is undermined by the facts  
10 that the jury found that ONT infringed PacBio's patent and  
11 the jury even found that one asserted patent, the '929  
12 patent, survived ONT's enablement challenge.

13 The point being, of course, that the verdict  
14 was not a complete unadulterated victory for ONT. On three  
15 of the four patents-in-suit, the verdict was split. The  
16 verdict simply gives no indication that the jury was  
17 inflamed by passion nor influenced by defendants' MIL  
18 violation.

19 While patent lawyers understand that the end  
20 result of the verdict form of the verdict returned by the  
21 jury, assuming it stands, and now we know today it is  
22 standing with me, but assuming it stands upon any further  
23 review, we all know that the end result is essentially a win  
24 for ONT because no relief can be provided to PacBio based  
25 on this verdict; but it's not -- nonetheless, it is not the

1 kind of verdict sheet one would expect, not the kind of  
2 verdict one would expect from a jury that was inflamed by  
3 passion, distracted from the evidence, worried about, in a  
4 way that it should not have been, about the impact of its  
5 verdict or acting in an improper results-oriented fashion.

6 The Court believes that had those things happened  
7 and impacted this jury, we would have seen a verdict that was  
8 wholly or at least almost wholly for ONT not the split  
9 decision that this jury returned.

10 As further support for my conclusion to deny  
11 this portion of the motion, I think it is helpful to go  
12 back and recall the timing of this trial. It was an  
13 extraordinary time and ultimately recalling that context  
14 further illustrates in my view how PacBio has failed to meet  
15 its burden.

16 Jury selection and evidence began on Monday,  
17 March 9th. The Court, the parties, and the jurors did not  
18 mention any coronavirus concerns on that day, and trial  
19 began seemingly smoothly.

20 In opening statements on March 9th, plaintiff,  
21 PacBio, was the first party to mention coronavirus. In  
22 opening statements -- and this is from the transcript at  
23 pages 120 and 121 -- counsel for PacBio said:

24 "We all know in these times, the Center for  
25 Disease Control is a particularly important institution.

1 Now, you don't test for coronavirus, which was all on I  
2 think everybody's mind, you know, with this" -- or PacBio,  
3 that is -- "with this sequencer ... But it helps you  
4 understand the depths of what it is and what it is like so  
5 you can research for it. Maybe help develop a vaccine."

6 Again, that is a quote with a little bit of  
7 grammatical assistance by me here from pages 120 and 121 of  
8 the transcript.

9 PacBio evidently -- PacBio made the first  
10 mention of coronavirus at this trial and evidently did it  
11 and told us they did it because it knew that ONT would be  
12 itself referencing coronavirus in its opening statement.  
13 The parties had been required to exchange their PowerPoint  
14 presentations in advance of the opening statement and  
15 through that process obtained insight into what one another  
16 was going to say in opening statement.

17 But with that knowledge, I think it is notable  
18 PacBio, knowing of ONT's plans for the opening statement,  
19 did not object to this portion of ONT's plans, did not ask  
20 me to prevent what it knew was coming as a reference to  
21 coronavirus.

22 Instead, to all appearances, PacBio was content  
23 to have this issue play out in front of the jury with both  
24 parties making their intended reference to coronavirus, even  
25 though no discovery had been taken on either party's effort

1 in connection with coronavirus or COVID-19.

2 And I'll note parenthetically I did not know,  
3 during opening statement, that coronavirus had not been a  
4 subject of discovery. I assumed that because I don't think  
5 I had heard of coronavirus during fact discovery in this  
6 case, but I did not know whether it had been a subject of  
7 discovery, and both parties referenced coronavirus in  
8 opening; and I had no basis to think at that point, in  
9 real-time, that either side was unhappy about those  
10 references.

11 Now, in this opening, ONT did say more about  
12 coronavirus than PacBio did. For instance, ONT said,  
13 "Oxford Nanopore did all the work to make nanopore  
14 sequencing a reality, to make a product that is changing  
15 lives as we speak. Whether it is helping people fighting  
16 the coronavirus outbreak, characterizing cancer, keeping  
17 food safer ... the CDC ... use nanopore sequencing to  
18 understand the first cases of coronavirus in the U.S. ...  
19 Only Oxford sequencers like this could be rapidly assembled  
20 and distributed to China and the many labs sequencing  
21 samples around the country, and now these minIONs are in the  
22 hands of scientists and public health officials in China who  
23 are on the ground in real-time, monitoring the spread of the  
24 virus and working desperately to control it." And he went  
25 on from there.

1           And PacBio did object during ONT's opening, and  
2           the parties had a discussion at sidebar at which I told  
3           Mr. Hash he was certainly walking a fine line. And I said  
4           at some point, I may have to tell the jury that they are to  
5           ignore any suggestions about what may happen after this case  
6           because they are not to do that. And Mr. Hash said he  
7           understood.

8           That evening, after a press report emphasized  
9           that ONT had characterized this trial about being whether  
10          its technology that was being used to fight coronavirus  
11          might have patent infringement liability issues, that was  
12          the press characterization of our trial, PacBio submitted a  
13          request for curative instruction. And the next morning, I  
14          heard extensive argument from the parties, and it's true  
15          that in the context of that argument, PacBio's attorney did  
16          state the bell cannot be unrung.

17          But in my view, this is far from an assertion  
18          that whatever damage that was done to PacBio could not be  
19          cured. At no point, not at that point or at any later point  
20          during trial did PacBio say or, in my view, even suggest  
21          that the damage that had occurred could not be cured. The  
22          only relief PacBio sought was the curative instructions that  
23          morning; and I gave them exactly as PacBio asked and exactly  
24          at the time that PacBio asked me to do it.

25          I believed at that time, and still do, that

1 those curative instructions fully cured the unfair prejudice  
2 to PacBio from the violation of the MIL order from  
3 defendants' opening statement.

4 I explained my reasoning for the curative  
5 instructions at pages 293, 294, and around there in the  
6 transcript. And the instruction was read to the jury at  
7 page 303 of the transcript.

8 Thereafter, the parties complied with the  
9 Court's Order that they confer with one another, and provide  
10 notice to the Court before any further reference would be  
11 made to coronavirus in front of the jury.

12 Now, by the third day of trial, Wednesday,  
13 March 11th, that night, President Trump gave an address to  
14 the nation on the coronavirus pandemic; and at roughly the  
15 same time, the National Basketball Association announced it  
16 was suspending its season effective immediately.

17 Based on those developments, I had a discussion  
18 with counsel the next morning, March 12th, and I said the  
19 following:

20 "What you know, of course, is the President  
21 gave his address last night about the pandemic of the  
22 coronavirus. ... So far, no jurors have raised any concerns  
23 with any of us at this point. I am concerned that if the  
24 jury does raise a concern about whether they can comfortably  
25 spend the next five days with us, and I will not be able to

1 tell them that they're required to stay here, particularly  
2 if school is closed, which has not happened yet, so at least  
3 at the public school level yet. So I thought we should  
4 talk about this, because I don't want to heighten anybody's  
5 concern, least of all the jury's, but I am concerned about  
6 if the jury does start to have concerns how we're all going  
7 to deal with that."

8 And we had a discussion, and neither party asked  
9 for any relief. We continued with trial as the jury showed  
10 up that day and continued to show up every other day of  
11 trial.

12 Over the course of the trial, the Governor of  
13 Delaware issued three emergency orders which provided,  
14 among other things, public gathering of 50 or more people  
15 canceled. No indoor or outdoor seating for restaurants  
16 or bars. Various entertainment facilities were to cease  
17 operation.

18 I'm not taking judicial notice of these orders.  
19 Defendants don't want me to do that. But it's undisputed  
20 that these orders were issued. The copies of the orders  
21 that PacBio put in its briefing are authentic copies. The  
22 jury did not have them, they were not part of evidence, and  
23 there is no basis to presume that the jury knew about those  
24 orders, so I'm not taking judicial notice of it, but I do  
25 think they accurately reflect part of what was going on in



1 the community over the course of the time that we had this  
2 trial.

3 And all of it further elucidates I think that  
4 either party could have moved for a mistrial or for a  
5 suspension of trial or some other relief, but no party did.

6 The jury dutifully continued to fulfill its  
7 obligations, showing up and not expressing any doubts or  
8 concern on Friday, March 13th, Monday, March 16th, and  
9 Tuesday, March 17th. Closing arguments were completed  
10 around noon on March 17th and included both parties thanking  
11 the jury for its extraordinary service, which was a well  
12 deserved comment.

13 There were several questions from the jury  
14 over the course of that afternoon. And, with counsel's  
15 assistance, we responded to those juror notes. And then  
16 with the parties' consent, at around 4:45, I sent a note to  
17 the jury effectively asking whether they wanted to stay and  
18 deliberate longer or come back the next day.

19 And they wrote back: "Thank you, Judge. We do  
20 not feel we will be able to reach a verdict even staying  
21 late tonight. We will conclude at 5:00 p.m. and reconvene  
22 tomorrow."

23 Counsel expressed some surprise at this  
24 response, that the jury was still deliberating and expressing  
25 an interest in returning to the court for another day of

1 deliberation, but again there was no objection from any party  
2 to allowing the jury to continue to do as it requested.

3 So the jury was permitted to, and dutifully came  
4 back the next morning, the morning of Wednesday, March 18th.  
5 They picked up deliberations around 9:00 o'clock and  
6 deliberated for approximately two more hours until around  
7 11:00 a.m. They notified the Court that they had reached a  
8 verdict.

9 I advised the parties of this fact and provided  
10 one final opportunity for the parties to indicate if there  
11 was any reason I should not take the verdict, and they  
12 expressed none.

13 We took the verdict. It was what you all  
14 know it was. We all thanked the jury then for their  
15 extraordinary service and let them go.

16 I took the time to highlight this chronology  
17 because again it demonstrates to me this jury, there is just  
18 no indication, that certainly plaintiff has come far from  
19 meeting their burden to move that this jury was inflamed, that  
20 it was not careful, that it was not deliberate, that it did  
21 not follow my instructions, that it did not impassionately,  
22 that is, impassionately, i-m before passionately, and  
23 carefully reviewed the evidence. There is no indication of  
24 any sort that the jury did anything other than what it was  
25 supposed to do, notwithstanding the violations of my MIL

1 order at the start of the trial and notwithstanding the  
2 worsening situation in the world, including in Delaware,  
3 that evolved over the course of our trial.

4 Under these circumstances, PacBio has not  
5 persuaded the Court that it should take the extraordinary  
6 step of wiping out a verdict that even PacBio, to all  
7 appearances, was absolutely content to take -- content  
8 to take, that is, until after PacBio learned of what the  
9 verdict was and learned that it had not achieved the  
10 outcome it had hoped for with the jury.

11 In sum, the Court agrees with ONT "there is no  
12 basis to conclude that the jury's verdict was premised on  
13 the possible consequences of this litigation as opposed to  
14 the wealth of evidence on each substantive issue, including  
15 enablement."

16 That's a quote from an ONT brief, D.I. 499 at 16  
17 to 17."

18 That is a lot said about the plaintiff's motion.  
19 Let me now turn to the defendants' motion. ONT's motion for  
20 judgment as a matter of law or a new trial.

21 The defendants' motion is, as I have said, denied.

22 First, the defendant seeks judgment as a matter  
23 of law of noninfringement of the '400 and '323 and '056  
24 patent. Essentially, ONT offers four reasons for the relief  
25 it seeks but none of them warrant the relief sought.

1           First, ONT argues that no evidence shows that  
2 RNA sequencing kit infringed the '056 patent.

3           In relation to this argument, PacBio agrees  
4 that it offered no expert testimony that RNA sequencing kit  
5 infringed the '056 patent. And it is true that the jury was  
6 instructed that PacBio asserted that the RNA sequencing kit  
7 infringed the '056 patent, but all of this is irrelevant to  
8 the motion because as PacBio argued, the jury's general  
9 infringement verdict for the '056 patent is supported by the  
10 substantial evidence establishing that its products, that  
11 is, defendants' products, infringe when used in its ENA kit.

12           This is sufficient in my view to sustain the  
13 jury verdict of infringement with respect to the '056  
14 patent. It's consistent with the legal principles in the  
15 *i4i* decision, Federal Circuit (2010), 598 F.3d at page 849.

16           Second, ONT argues that no evidence shows that  
17 sequencing systems using flip-flop infringe the '400 and  
18 '323 patent. ONT argues there is no evidence that the  
19 flip-flop systems perform the comparing step of the '400 and  
20 '323 claims.

21           Taking the evidence in a light most favorable to  
22 PacBio as the verdict winner here, I disagree with ONT.  
23 Used in a light most favorable to PacBio, Dr. Dessimoz's  
24 testimony that flip-flop uses the same training data set as  
25 the older software that performs the comparing step could

1 have persuaded a reasonable jury to find that flip-flop also  
2 performs this step.

3 Its conclusion is further supported or could  
4 have been found to be further supported by a reasonable jury  
5 by ONT expert Dr. Goldman's testimony that flip-flop is used  
6 as an RNN, that is, a Recurrent Neural Network.

7 The third argument ONT makes is that there was  
8 no evidence showing that the '056 patent step of selecting  
9 reaction conditions has ever been performed in the United  
10 States. This is based on the limitation -- or the clause, I  
11 should say, in claim 1 of the '056 patent, which provides  
12 "whereby the reaction conditions are selected."

13 ONT insists that this phrase requires the  
14 accused infringer to select the reaction condition. And ONT  
15 further insists that the trial evidence shows the reaction  
16 conditions were selected in the United Kingdom, not the  
17 United States.

18 PacBio responds that the reaction conditions  
19 define the environment in which the accused infringer must  
20 act, not a step that needs to be performed, making it  
21 immaterial whether the selection is performed in the United  
22 States or elsewhere.

23 The Court agrees with PacBio. I am not  
24 persuaded that a person of skill in the art would read the  
25 cited "whereby" clause as imposing a claim limitation. In

1 any event, the evidence presented at trial viewed in the  
2 light most favorable to PacBio provides substantial evidence  
3 that could lead a reasonable jury to find that users in the  
4 United States have selected reaction condition.

5 For instance, Dr. Dessimoz testified that users  
6 of the accused product set parameters such as voltage and  
7 run time when they select a kit to operate the product, even  
8 though a key witness Spike Willcocks testified that users  
9 "wouldn't always use the same things that we would explain  
10 to them to use."

11 Giving PacBio the benefit of all logical  
12 inferences that could be drawn from the evidence presented,  
13 which I'm required to do at this stage, the principle you  
14 can find in lots of places, including the *Williamson*  
15 decision, 926 F2d at 1348, applying that legal principle,  
16 this evidence could support the jury's implicit finding.

17 Fourth, ONT argues that no evidence shows that  
18 the "N" limitation was met for any alleged infringing  
19 activity for the '400 and '323 patent.

20 In this regard, ONT insists that PacBio violated  
21 the Court's claim construction, that "N" includes all bases  
22 that affect the current measurement, by arguing that only  
23 bases dominating the current measurement are relevant to the  
24 value of "N."

25 The Court finds no improper inconsistency

1 between PacBio's evidence and argument on the one hand and  
2 the binding claim construction on the other.

3 The evidence in a light most favorable to PacBio  
4 could have lead the jury to reasonably find that not every  
5 nucleoside that can affect the current actually does affect  
6 the current. That one can determine how many nucleotides  
7 affect the current by examining how many combinations of  
8 nucleotides the software uses. And up to five nucleotides  
9 affect the current measurements in ONT's product that use  
10 the R9 pores and up to nine nucleotides affect the current  
11 measurement in ONT's products that use the R10 pores.

12 The jury could have found all of that in favor  
13 of PacBio. So in the end, there is substantial evidence to  
14 support the jury's verdict of infringement and these aspects  
15 of ONT's motion are denied.

16 ONT next moves to vacate the infringement  
17 judgment and for a conditional order of a new trial on  
18 infringement of the '400, '323, and 556 patent.

19 ONT argues for a new trial on the grounds that  
20 the verdict form conceal the jury's decision on specific  
21 products within a generic infringement determination and  
22 thereby made it impossible to know whether the jury's  
23 infringement verdict was based on PacBio's defective claims  
24 about these products, for which Oxford is entitled to  
25 judgment as a matter of law.

1           As I have already discussed, however, in fact,  
2           substantial evidence supports the jury's verdict on  
3           infringement of the '400, '323 and '056 patents.

4           Also, the cases cited by ONT as explained by  
5           PacBio simply reinforced that a court may reverse a general  
6           verdict where it is impossible to tell whether the jury  
7           rests its conclusion on a legally inadequate ground, but  
8           here it is not impossible to do so for reasons I have  
9           already explained. So this aspect of ONT's motion is  
10          denied.

11          Finally, at last, I come to the last basis for  
12          relief from ONT, seeking judgment as a matter of law that  
13          all asserted claims of the '056 patent are indefinite.

14          Specifically, ONT argues that the Court should  
15          find that claims 2 and 12 of the '056 patent are indefinite  
16          because indefiniteness is a question of law for the Court to  
17          decide, and the jury already found that claim 1 of the '056  
18          patent from which claims 2 and 12 depend is indefinite.

19          First, ONT insists that the Supreme Court's  
20          decision in *Teva vs. Sandoz* in 2015 made indefiniteness an  
21          issue exclusively for the court to decide. I disagree. I  
22          continue to believe that I have discretion to put in  
23          indefiniteness before the jury whereas as here, there are  
24          subsidiary fact disputes that inform the indefiniteness  
25          decision as a matter of law. ONT has cited no contrary



1 Federal Circuit case.

2 In fact, instead, the Federal Circuit, including  
3 in the *Bombardier Recreational Product* decision in 2019, I  
4 think it made clear that indefiniteness is amenable to  
5 resolution by the jury where the issues are factual in  
6 nature. So I think it was appropriate to put indefiniteness  
7 before the jury.

8 The fact dispute related to the kinetic step  
9 limitation.

10 I'll ask if you can put me on mute. I'm nearly  
11 done, but we are getting some background noise.

12 The verdict form which asks the jury to find  
13 whether each asserted claim of the '056 patent was invalid  
14 as indefiniteness was a general verdict form. I would cite  
15 to the *Function Media* decision of the Federal Circuit in  
16 2013, 708 F.3d at pages 1329 to 1330, as further support  
17 that this is a general verdict form.

18 We did not bring the jury process into the open  
19 so that we could see what has been done. We did not do that  
20 through this verdict form, so it's a general verdict form.

21 While ONT insists that its motion is not based  
22 on any argument that the verdict is inconsistent, I  
23 disagree. The defendants' motion is premised on a purported  
24 inconsistency between the jury's finding of nonenablement of  
25 claim 1 and its finding of no nonenablement on claim 2 and

1 12.

2 Therefore, ONT, by failing to object to the  
3 inconsistent verdict or the purportedly inconsistent verdict  
4 has waived that argument and waived that as a basis for  
5 relief. See, for instance, the *Frank C. Pollara Group*  
6 decision in the Third Circuit in 2015.

7 In any event, even if I treat this as a  
8 nonwaived motion for judgment as a matter of law, I still  
9 deny and will deny, do deny ONT's motion.

10 ONT is correct that with respect to claim 1 of  
11 the '056 patent, it is presumed that the jury found that a  
12 person of skill in the art would not be able to ascertain  
13 the balance of the "kinetics steps" limitation of claim 1,  
14 but even though that same fact dispute arose in connection  
15 with claims 2 and 12, the Court must presume that the jury  
16 did not make that same finding in connection with claim 2  
17 and claim 12.

18 The Court must presume that the jury resolved  
19 the underlying factual issues in favor of the verdict  
20 winner, and unlike with respect to claim 1, with respect  
21 to claims 2 and 12, PacBio is the verdict winner on the  
22 enablement issue.

23 Thus, the pertinent question becomes is there  
24 substantial evidence to support the implied fact-finding  
25 on claims 2 and 12 that they are not invalid for lack of

1 enablement. And PacBio has shown that, yes, there is  
2 substantial evidence that, taken in a light most favorable  
3 to PacBio, could have been credited by a reasonable jury in  
4 support of finding no non-enablement, for instance, Dr. Ha's  
5 testimony.

6 The point is that on the enablement questions  
7 on the '056 patent, the jury could have sided with either  
8 party. It sided with ONT on claim 1 and sided with PacBio  
9 on claims 2 and 12.

10 I have no basis here to not uphold all portions  
11 of that '056 verdict. I have no reason to conclude anything  
12 other than that the jury found reasonably that ONT met its  
13 burden of proof with respect to claim 1 and failed to meet  
14 its burden of proof with respect to claims 2 and 12.

15 Therefore, I'm denying this aspect of the  
16 defendants' motion, just as I denied all of the other  
17 portions of both motions that were argued the other day.

18 I direct that the parties meet and confer and  
19 submit any further orders that are necessary to conclude  
20 this case, and provide a joint status report indicating to  
21 me what, if anything, else I need to do to end this case.

22 I want you to meet and confer and to submit that  
23 by next Tuesday, August 4th. Thank you for your patience  
24 listening to my recitation here.

25 I have just a few more minutes, if there are any

1 questions or anything else we should discuss.

2 First from PacBio.

3 MR. REINES-AO: No, Your Honor.

4 THE COURT: Okay. And from Oxford?

5 MR. HASH: No, Your Honor. We don't have  
6 anything at this time.

7 THE COURT: Okay. Thank you all very much for  
8 your time. Stay safe and we will be in recess. Bye-bye.

9 (Judge's opinion ends at 5:56 p.m.)

10

11 I hereby certify the foregoing is a true and accurate  
12 transcript from my stenographic notes in the proceeding.

12

13

/s/ Brian P. Gaffigan  
Official Court Reporter  
U.S. District Court

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