UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

TwinStrand Biosciences, Inc. & University of Washington v. Guardant Health, Inc.

TwinStrand · No. Civil Action No. 21-1126-GBW-SRF · Decided June 16, 2026

OPINION

TwinStrand Biosciences, Inc. & University of Washington v. Guardant Health, Inc.
PER CURIAM.
IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE
TWINSTRAND BIOSCIENCES, INC, &
UNIVERSITY OF WASHINGTON,
Plaintiffs, Civil Action No. 21-1126-GBW-SRF v.
GUARDANT HEALTH, INC.,
Defendant.
MEMORANDUM OPINION
Adam W. Poff, Samantha G. Wilson, Colin A. Keith, YOUNG CONAWAY STARGATT & TAYLOR, LLP, Wilmington, Delaware; Byron Pickard, R. Wilson Powers II, Ph.D., Chandrika Vira, William H. Milliken, Anna G. Phillips, Tyler J. Dutton, David H. Holman, Christopher M. Gallo, Ph.D., Brady P. Gleason, STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C,, Washington, District of Columbia. Counsel for Plaintiffs Jeff Castellano, Erin E. Larson, DLA PIPER LLP (US), Wilmington, Delaware; Mark Fowler, Susan Krumplitsch, Peiyao Zhang, DLA PIPER LLP (US), Palo Alto, California; Tracy Block, DLA PIPER LLP (US), New Yerk, New York; Ellen Scordino, Nancy C, Braman, DLA PIPER LLP (US), Boston, Massachusetts; Travis Jensen, ORRICK, HERRINGTON & SUTCLIFFE LLP, Menlo Park, California. Counsel for Defendant June 16, 2026 Wilmington, Delaware lA
GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE
This is an action for patent infringement brought by Plaintiffs TwinStrand Biosciences, Inc. (“TwinStrand”) and the University of Washington (“UW”) (together, “Plaintiffs”) against Defendant Guardant Health Inc, (“Guardant” or “Defendant”) involving DNA sequencing technology. Following a jury trial in November 2023, the jury returned a verdict that Defendant had infringed Claim 1 of U.S, Patent No, 10,287,631 (the “°631 Patent’) and Claims 24 and 30 of U.S. Patent No. 10,760,127 (the “’127 Patent”) (together, the “Asserted Claims” of the “Asserted Patents”). The jury also found willfulness. Now pending before the Court are the following motions:!

(1) Defendant's Motion for Judgment as a Matter of Law Or, in the Alternative, New Trial ("Defendant's Motion for JMOL or New Trial") (D.L 530), which has been fully briefed (D.I. 531; D.1. 550; 556);

(2) Plaintiffs' Motion for Enhanced Damages, Attorneys' Fees, an Ongoing Royalty, and Other Relief (D.I. 532) ("Plaintiffs' Enhanced Damages Motion"), which has been fully briefed (D.1. 535; D.I. 548; D.I. 557); and

(3) Defendant's Motion for Relief under Rule 60(b) ("Defendant's Rule 60(b) Motion") (D.I. 592), which has been fully briefed (D.I. 593; D.I. 595; D.I. 599). 1 The parties have also filed supplemental briefing with respect to the post-trial motions. D.I. 610; D.I. 614; DI. 618. For the reasons set forth below, Defendant's Motion for JMOL or New Trial (D.I. 530) is denied, Plaintiffs' Enhanced Damages Motion (D.I. 532) is granted-in-part and denied-in-part, and Defendant's Rule 60(b) Motion (D.1. 592) is denied.

I. BACKGROUND

A. Pre-Trial History" On August 3, 2021, Plaintiffs filed their Complaint, alleging infringement by Defendant of the '127 Patent, the °631 Patent, as well as U.S. Patent Nos. 10,689,699 (the "699 Patent") and 10,752,951 (the "'951 Patent"). DI. 1. On January 12, 2022, Defendant filed its Amended Answer, Affirmative Defenses, and Counterclaims to Plaintiffs' Complaint, alleging Plaintiffs' infringement of four of Defendant's patents, as well as counterclaims regarding the patentability and enforceability of some of Plaintiffs' then-asserted patents, inter alia. D.1, 30. On December 6, 2022, Magistrate Judge Sherry R. Fallon presided over a claim construction hearing and, on December 29, 2022, issued a Report and Recommendation recommending the construction of several terms. D.I. 190. On June 2, 2023, the Court issued a Memorandum Order overruling Defendant's objections to the Report and Recommendation. D.I. 320. The parties' claims and counterclaims narrowed leading up to trial. On September 22, 2023, the parties stipulated to the dismissal of Defendant's patents and Plaintiffs' related counterclaims, D.I. 441. On October 17, 2023, the parties stipulated to the dismissal of Plaintiffs' infringement claims with respect to the °699 Patent and the '951 Patent and Defendant's related counterclaims. D,I. 450. 2- The Court writes for the benefit of the patties and only sets forth the procedural history necessary for the discussion herein. For a fuller discussion of the procedural history, see D.I. 465 at I nl, Shortly before trial, the parties raised new issues of claim construction regarding (1) prosecution history estoppel of the '631 Patent as it pertains to the "strand-distinguishing nucleotide sequence" limitation and (2) whether the claims of the '127 Patent and '631 Patent must be performed in order. See D.L. 462 (citing D.L. 460, Ex. 17). On October 30, 2023, the Court issued an Oral Order directing the parties to file supplemental briefing on these issues and scheduled a supplemental claim construction hearing. Id. On October 31, 2023, the Court issued two Memorandum Orders resolving the parties' summary judgment motions and Daubert motions (D.I. 465 and D.I. 466) and an Oral Order granting Defendant's motion to strike (D.I. 467), On November 1, 2023, the Court issued an Order resolving the parties' motions in dimine. D.I. 469.

On November 2, 2023, the Court presided over a supplemental claim construction hearing and the parties' pretrial conference, On the following day, the Court issued a Memorandum Order regarding supplemental claim construction. D.1. 475. B. Trial and the Jury's Verdict A five-day jury trial began on November 6, 2023, Following trial, the jury returned a verdict finding that Defendant infringed each of the Asserted Claims. D.I. 497 at 2. The jury also found that Defendant's infringement was willful. Jd at 3. The jury awarded Plaintiffs $83.4 million in damages in the form ofa reasonable royalty, arriving at this damages figure by applying a 6% royalty rate to a $1.39 billion revenue base, which included $106 million in revenue from sales of Defendant's services. Jd at 4-5. The Court entered judgment in favor of Plaintiffs in accordance with the jury's verdict, D.I. 520 at 1 (providing that judgment was "subject to modification following the Court's consideration of the parties' post-trial motions"). Cc, The Asserted Patents and Claims The °127 Patent is titled "Methods of lowering the error rate of massively parallel DNA sequencing using duplex consensus sequencing." Claims 24 and 30 depend from Claim 22. The relevant claim language is as follows:

22. A method of sequencing DNA comprising:

a) attaching partially single-stranded adapters comprising barcodes selected from a plurality of distinct barcode sequences to double-stranded DNA fragments obtained from a bodily sample, wherein attachment of the adapters to double- stranded DNA fragments generates a library of tagged double-stranded adapter-DNA molecules; b) amplifying strands from a plurality of the double-stranded adapter-DNA molecules in the library to produce strand copies; c) sequencing a plurality of the strand copies to obtain strand sequence reads comprising one or more barcode sequences and DNA fragment-specific information, and d) for at least some of the double-stranded adapter-DNA molecules in the library— grouping the strand sequence reads into families based on i) the barcode sequence, and ii} DNA fragment- specific infermation; collapsing a plurality of strand sequence reads within the families to provide a consensus sequence for each of at least some of the double-stranded DNA molecules in the library; comparing the consensus sequence to a_ reference sequence; and analyzing one or more correspondences between the consensus sequence and the reference sequence to identify a sequence variation. OR 24, The method of claim 22, wherein at least some of the double- stranded DNA fragments are derived from a tumor or circulating neoplastic cells.

30. The method of claim 22, wherein the barcode sequences are 3,

4, 5, 6, 7 or 8 nucleotides in length. Patent at Claims 22, 24, 30 (emphasis added). The jury was instructed with respect to the Patent as follows: "partially single-stranded adapters" | Plain and ordinary meaning with the understanding that Patent at Claim 22 the term can include both Y-shaped and U-shaped adaptors. "DNA fragment-specific Plain and ordinary meaning. information" Patent at Claim 22 Patent at Claim 22 All the steps of claim 22 of the '127 patent must be performed in order. Iterative or simultaneous performance is within the scope of the claims, provided that the steps are performed in the order recited. D.1. 490 at 20. The °631 Patent

is titled “Methods of lowering the error rate of massively parallel DNA sequencing using duplex consensus sequencing.” Claim 1 of the ’631 Patent recites:

1. A method of generating high accuracy sequence reads of a
population of double-stranded target nucleic acid molecules, comprising: ligating each of the double-stranded target nucleic acid molecules to at least one adapter molecule, to form a population of adapter-target nucleic acid complexes, wherein each of the adapter molecules comprises— (a) a degenerate or semi-degenerate single molecule identifier (SMI) sequence that alone or in combination with the target nucleic acid fragment ends uniquely labels each ligated double-stranded target nucleic acid molecule such that each ligated double-stranded target nucleic acid molecule is distinguishable from other ligated double-stranded target nucleic acid molecules in the population, and (b) a strand-distinguishing nucleotide sequence that, following the ligation step, provides a region of non- complementarity between a first strand of each adapter- target nucleic acid complex and a second strand of the sae adapter-target nucleic acid complex; for each of the adapter-target nucleic acid complexes-— amplifying each strand of the adapter-target nucleic acid complex to produce a plurality of first strand adapter- target nucleic acid complex amplicons and a plurality of second strand adapter-target nucleic acid complex amplicons; sequencing the adapter-target nucleic acid complex amplicons to produce a plurality of first strand sequence reads and plurality of second strand sequence reads; grouping the first strand sequence reads and the second strand sequence reads into a family of first and second strand sequence reads based on the degenerate or semi-degenerate SMI sequence alone or in combination with the target nucleic acid fragment ends; separating the first and second strand sequence reads into a set of first strand sequence reads and a set of second strand sequence reads based on the region of non-complementarity between the first strand and the second strand of the adapter- target nucleic acid complex; confirming the presence of at least one first strand sequence read and at least one second strand sequence read; comparing the at least one first strand sequence read with the at least one second strand sequence read; identifying nucleotide positions where the compared first and second strand sequence reads are non- complementary; identifying nucleotide positions where the compared first and second strand sequence reads are complementary; and generating a high accuracy consensus sequence read for each of the double-stranded target nucleic acid molecules in the population that includes only the nucleotide positions where the compared first and’ second strand sequence reads are complementary. Patent at Claim 1 (emphasis added), The jury was instructed with respect to the °631 Patent as follows: “uniquely labels” Plaim and ordinary meaning. Patent at Claim 1 “degenerate ... sequence(s)” A nucleotide sequence that is known or unknown in °631 Patent at Claim 1 which every nucleotide position is unrestricted in its nucleotide variability. “semi-degenerate .., sequence(s)” A nucleotide sequence that is known or unknown in Patent at Claim 1 which at least one, but not all, nucleotide positions are fixed or restricted in their nucleotide variability. “high accuracy sequence reads” Plain and ordinary meaning. °631 Patent at Claim 1 “high accuracy consensus sequence ‘| Plain and ordinary

meaning. read” °631 Patent at Claim 1 “fragment ends” Plain and ordinary meaning, which means “the distal Patent at Claim 1 ot terminal parts of the fragment.” Patent, Claim 1 Some, but not all of the steps of claim 1 of the °631 atent must be performed in the order recited in the claims. Specifically, the “ligating” step must precede the “amplifying” step, which must precede the “sequencing” step. Likewise, the “comparing” step must precede the “identifying” steps, which must precede the “generating” step. Iterative or simultaneous performance is within the scope of the claims, provided that the steps listed above are performed in the order recited. But the “grouping,” “separating,” and “confirming” steps may be performed in any order, and the two “identifying” steps may be performed in either order. “each” Plain and ordinary meaning. The claim does not °631 Patent at Claim 1 require 100% efficiency, “population” Plain and ordinary meaning, which means “the set of °631 Patent at Claim 1 molecules that is processed through the workflow.” 490 at 19-20.

IL. LEGAL STANDARDS

A. Judgment as a Matter of Law (“JMOL”) A court may enter JMOL against the non-moving party where it “finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on [an] issue.” Fed. R. Civ. P. 50(a)(1). However, JMOL is appropriate “only if, viewing the evidence in the light most favorable to the nonmovant and giving it the advantage of every fair and reasonable inference, there is insufficient evidence from which a jury reasonably could find liability.” Lightning Lube, Inc. y. Witco Corp., 4 F.3d 1153, 1166 3d Cir, 1993). Entry of JMOL is a remedy to be invoked only “sparingly.” CGB Occupational Therapy, Inc. v. RHA Health Servs. Inc., 357 F.3d 375, 383 (3d Cir, 2004). Following a jury trial, a renewed motion for JMOL under Rule 50(b) may be granted only if the movant demonstrates “that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusion(s) implied [by] the jury’s verdict cannot in law be supported by those findings.” Pannu v. lolab Corp., 155 F.3d 1344, 1348 (Fed. Cir. 1998) (alterations in original) (citation omitted). Substantial evidence requires such relevant evidence that a reasonable mind might accept it as adequate to support the finding under review. See Enplas Display Device Corp. v. Seoul Semiconductor Co., 909 F.3d 398, 407 (Fed. Cir. 2018). In determining whether substantial evidence supports the jury verdict, the Court cannot make credibility determinations, weigh the evidence, or substitute its own conclusions for that of the jury where the record evidence supports multiple inferences. See Lightning Lube, 4 F.3d at 1166; cf TO Delta, LLC v. Cisco Sys., Inc., 942 F.3d 1352, 1358 (Fed. Cir. 2019) (Conclusory expert testimony does not qualify as substantial evidence.” (citations omitted)). The standards that govern a Rule 50(b) motion, however, “vary according to whether the movant has the burden of proof.” Fireman’s Fund Ins. Co. v. Videfreeze Corp., 540 F.2d 1171, 1177 (3d Cir. 1976). To grant JMOL in favor of a party with the burden of proof, the court “must be able to say not only that there is sufficient evidence to support the finding [sought by the moving party]... but additionally that there is insufficient evidence for permitting any different finding.” id. (citation omitted). B. Motion for New Trial Under Federal

Rule of Civil Procedure 59, “ordinarily a new trial should only be granted when a ‘miscarriage of justice would result if the verdict were to stand,’ the verdict “cries out to be overturned,’ or the verdict ‘shocks [the] conscience.’” Roche Diagnostics Corp. v. Meso Scale Diagnostics, LLC, 503 F. Supp. 3d 156, 166 (D. Del, 2020), aff'd in part, vacated in part, rev'd in part, 30 F.4th 1109 (Fed. Cir, 2022) (alteration in original) (citation omitted); see also Intellectual Ventures I, LLC y. Canon Inc., 104 F. Supp. 3d 629, 637 (D. Del. 2015) (“[T]he court should grant 10 a new trial on the basis that the verdict was against the weight of the evidence only where a miscarriage of justice would result if the verdict were to stand.”). Cc. Relief from a Final Judgment or Order under Rule 60 Rule 60(b) provides: On motion and just terms, the court may relieve a party or its legal representative from a final judgment, order, or proceeding for the following reasons:

(1) mistake, inadvertence, surprise, or excusable neglect;

(2) newly discovered evidence that, with reasonabie diligence, could

not have been discovered in time to move for a new trial under Rule 59(b);

(3) fraud (whether previously called intrinsic or extrinsic),

misrepresentation, or misconduct by an opposing party;

(4) the judgment is void;

(5) the judgment has been satisfied, released, or discharged; it is

based on an earlier judgment that has been reversed or vacated; or applying it prospectively is no longer equitable; or

(6) any other reason that justifies relief.

Fed. R. Civ. P. 60(b). “A motion under Rule 60(b) must be made within a reasonable time--and for reasons (1), (2), and (3) no more than a year after the entry of the judgment or order or the date of the proceeding.” Fed, R. Civ. P. 60(¢)(1).

DISCUSSION

The Court divides its discussion into three sections. The Court begins its discussion by addressing Defendant’s Motion for JMOL or New Trial. Next, the Court turns to Plaintiffs’ Enhanced Damages Motion. Finally, the Court concludes its discussion by addressing Defendant’s Rule 60(b) Motion. A. Defendant’s Motion for JMOL or New Trial Defendant asserts that it is entitled to JMOL on five grounds:

(1) there is no substantial evidence of infringement because

Guardant does not practice the claimed bioinformatics steps; (2) even if the individual claim elements could be met, there is no substantial evidence Guardant performs the steps in the required order; (3) TwinStrand’s expert admitted the Guardant services cannot infringe; (4) there is no substantial evidence of willfulness; and (5) no legally sufficient evidence supports the damages award. D.I. 531 at 1. In the alternative, Defendant seeks a new trial. Id, The Court addresses each of these five bases in turn, with the caveat that the Court addresses the first two bases in a single subsection, on a patent-by-patent basis. .

1. Performance of the Claimed Bioinformatics Steps

“To infringe a method claim, a person must have practiced all steps of the claimed method.” Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1207 (Fed. Cir. 2010) (quoting Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1317 (Fed. Cir. 2009)). Infringement is a question of fact, which the Court reviews for substantial evidence. See Eon Corp. IP Holdings v. Silver Spring Networks, 815 F.3d 1314, 1318 (Fed. Cir. 2016). First, Defendant contends it is entitled to JMOL because there was insufficient evidence during trial showing that Defendant practiced any of the bioinformatics steps required by the Asserted Claims. 531 at 2-8. Second, Defendant contends it is entitled to JMOL because there is insufficient evidence that the bioinformatics steps of the Asserted Claims were practiced in the order required by the Court’s claim construction. Jd. at 8-10, The Court addresses both of these contentions in turn, beginning with Claim 1 of the ’631 Patent. a. The Claimed Bioinformatics Steps of the ’631 Patent For Claim 1 of the ’631 Patent, the bioinformatics or “dry lab” steps are the limitations beginning with “grouping,” “separating,” “confirming,” “comparing,” “identifying” (twice), and “generating.” Defendant contends that no reasonable jury could find that Defendant practices any of these steps, D.I. 531 at 3-6. 12 The “grouping” limitation recites “grouping the first strand sequence reads and the second strand sequence reads into a family of first and second strand sequence reads based on the degenerate or semi-degenerate SMI sequence alone or in combination with the target nucleic acid fragment ends.” ’631 Patent at Claim 1. As a preliminary matter, the parties agree that Defendant “oroups sequence reads into families using ‘MK tags.’ D.I. 531 at 3 (citations omitted); see also D.L. 550 at 2. In Defendant’s view, (1) there is insufficient evidence to show that its software groups by barcode alone or in combination with the target nucleic acid fragment ends and (2) its software uses different information than that required by the claim language (e.g., start and stop positions, length). D.I, 531 at 3. Plaintiffs oppose, asserting that the evidence presented during trial supports the jury verdict, and that Defendant’s second argument is an attempt at post-verdict claim construction. D,I. 550 at 2-4. During trial, Plaintiffs’ technical expert, Dr. Lior Pachter, testified that Defendant grouped families using “MK tags.” Trial Transcript (“Tr.”) at 436:11-13 (‘Guardant Health was ... grouping into families with something they call MK tags”); PTX-049. Plaintiff's’ technical expert further explained that these MK tags used molecular barcodes in combination with molecule start and stop positions based upon the adjusted genomic position of the molecule. See Tr. at 436:18- 19, 436:23-437:1 (MK tags contain “the adjusted genomic alignment start and stop positions of the molecule. That’s exactly — that’s fragment-end information or also fragment-specific information. That’s what that [] is.”), 462:2-15, 462:20-463:7, 463:10-464:2. Also, as it pertains 3 Both parties cite to JTX-019 as listing the contents of an MK tag. See D.I. 531 at 3; §50 2. Inrelevant part, JTX-019 provides that the term “MK tag” refers to “the unique identifier used by [Defendant’s Bioinformatics Pipeline (‘BIP’)] to track molecules. It is composed of [the] DNA sequence of the molecular barcodes attached to the molecule, the length of the molecule, and the genomic start and stop positions of the molecule, separated by colon marks.” JTX-019.0033. 13 specifically to the “grouping” limitation of the °631 Patent, Plaintiffs’

technical expert walked through documentary evidence detailing how Defendant's products mapped to the claim language. See Tr. at 467:16-21, 467:22-468:15 (testifying that "the MK tag has the barcodes, it has the start and stop positions, those are the fragment ends," and that in "the code where a family is created, this grouping is happening, and . . . it's using the MK tag"); JTX-141; JTX-009.0015, Defendant's contentions otherwise are unpersuasive. First, viewing the evidence in the light most favorable to Plaintiffs, the Court is not persuaded that the jury did not have sufficient evidence from which it could conclude that Defendant practiced the "grouping" limitation. Cf 531 at 3. To the contrary, Plaintiffs' technical expert opined that Defendant's barcodes were "degenerate," Tr, at 461:23-24, and that the code for Defendant's products grouped these molecules using the barcodes in conjunction with the "fragment ends," id. at 468:4. Although Defendant emphasizes that its witnesses offered competing understandings of Defendant's source code and how it mapped to the claim language, the jury was entitled to reject that evidence. See See Lightning Lube, 4 F.3d at 1166. Defendant's assertion that the start/stop position of the molecule could not qualify as a "fragment end" is likewise unpersuasive. The Court construed "fragment end" to have its plain and ordinary meaning, which is "the distal or terminal parts of the fragment." D.I. 490 at 20. Plaintiffs' technical expert testified that the MK tags, which he contends are used by Defendant in practicing the "grouping" limitation, contain "fragment-end information." Tr. at 463:25, Plaintiffs' technical expert further testified that the MK tags were "made of DNA sequence of the molecule barcodes." Id. at 436:18-19. Thus, even if the "fragment end" was required to include only the nucleotide sequences at the distal or terminal end of the target molecule, as Plaintiffs allege, the jury heard testimony that MK Tags would nonetheless include such information. Jd. at 436:18-25. 14 Second, Defendant asserts that the information that Plaintiffs' technical expert identifies as being used by Defendant in practicing the "grouping" limitation is not allowed by the claim language. DJ. 531 at 4. Specifically, Defendant asserts that, because the MK tag includes "length," it fails to meet this claim limitation. Jd at 5. The Court, however, is not convinced, since the inclusion of "length" in the MK. tag does not negate the MK tag's inclusion of the adjusted genomic start and stop positions of the molecule. Indeed, "length" within the MK tag simply refers to "the subtraction of the end from the beginning." Tr. at 464:10-11; see also id. at 463:18-21 ("*[S}tart adjusted genomic alignment start position,' that's one end of the fragment and there's the other end of the fragment. The difference between those two is the length."). Importantly, the Court's construction did not limit the "grouping" limitation as requiring no extraneous information being used to group the targeted sequence reads. See DI. 490 at 20, At the current procedural posture, imposing an additional limitation on the claim language would be improper. See Hewlert- Packard Co. v. Mustek Sys., Inc., 340 F.3d 1314, 1320 (Fed. Cir. 2003) ("[I]t is too late at the JMOL stage to argue for or adopt a new and more detailed interpretation of the claim language and test the jury verdict by that new and more detailed interpretation."); see also Bayer AG v. Sony Elecs., Inc., 229 F. Supp. 2d 332, 344 (D. Del. 2002), aff'd, 83 F. App'x 334 (Fed. Cir, 2003) ("The Court may not, under the rubric

of claim construction, give a claim whatever additional precision or specificity is necessary to facilitate a comparison between the claim and the accused product, because claim construction is a legal question and infringement is a factual question." (internal quotation marks omitted)). Thus, Defendant's second contention fails. The "separating" limitation recites "separating the first and second strand sequence reads into a set of first strand sequence reads and a set of second strand sequence reads based on the region of non-complementarity between the first strand and the second strand of the adapter-target 15 nucleic acid complex." °631 Patent at Claim 1. Defendant, primarily citing its own witnesses' testimony, contends that it is "undisputed" that its products do not practice this limitation. D.I. 531 at 5. However, during trial, Plaintiffs' technical expert opined that Defendant practices the "separating" limitation because Defendant's software has a data structure that has separate counters based upon separation of the strands. See Tr, at 468:23-471:22 (veviewing source code, documentary evidence, and asserting that "there's a data structure where there's information being added to counters based on having separated the strands"); see also PTX-49.0004-5; JTX- 009,0062-63, .0081. The "confirming" and "comparing" limitations recite "confirming the presence of at least one first strand sequence read and at least one second strand sequence read" and "comparing the at least one first strand sequence read with the at least one second strand sequence read," □□□□ Patent at Claim 1. As with the previous limitations, and again primarily citing its own witnesses' testimony, Defendant contends that infringement of these limitations is not supported by sufficient evidence, "because Guardant does not confirm that both strands are present before proceeding to the 'comparing' step." D.1. 531 at 5. However, during trial, Plaintiffs' technical expert explained that Defendant's source code provided evidence of the "confirming" limitation. See Ty. at 473:4- 9: see also id. at 472:1-473:9, 485:5-12 (reviewing a graphic made by Defendant's source code expert, and concluding that it supported his findings regarding the "confirming" limitation); JTX- 009.0063. Similarly, Plaintiffs' technical expert found evidence in the record that Defendant practiced the "comparing" limitation. See, e.g., Tr. at 473:13-477:1 (reviewing a paper co-written by Defendant's founders, Defendant's submissions to the U.S, Food and Drug Administration ("FDA"), and Defendant's source code), 486:5-13 (reviewing a graphic made by Defendant's source code expert, and concluding that it supported his findings regarding the "comparing" 16 limitation); see aiso DTX-0424; JTX-009.0065-66. Defendant had the opportunity to, and did, cross-examine Plaintiffs' technical expert as to his interpretation of these documents, as well as the underlying source code. The jury decided who to believe on those issues. The Court cannot determine the credibility of Plaintiffs' technical expert and usurp the role of the jury. See Lightning Lube, 4 F.3d at 1166 (stating that the court "the court may not weigh the evidence, determine the credibility of witnesses, or substitute its version of the facts for the jury's version"). The "identifying" and "generating" limitations recite: "identifying nucleotide positions where the compared first and second strand sequence reads are non-complementary"; "identifying nucleotide positions where the compared first and second strand sequence reads are complementary"; and "generating a high accuracy consensus sequence read for

each of the double- stranded target nucleic acid molecules in the population that includes only the nucleotide positions where the compared first and second strand sequence reads are complementary," °631 Patent at Claim 1. As for these three limitations, Defendant asserts that it "takes a fundamentally different approach than the claims," since Defendant's software does not require total agreement between top and bottom strands to generate a consensus. D.I. 531 at 6. Plaintiffs' technical expert disagreed, As for both "identifying" limitations, Plaintiffs' technical expert found evidence in the record to support his assertion that Defendant practiced them. See Tr. at 477:3-478:25 (reviewing Defendant's U.S. FDA submissions and source code). Plaintiffs' technical expert specifically identified record evidence that, in his opinion, showed that Defendant's software identifies nucleotide positions where the reads are non-complementary. /d. at 477:11-14 ("I found direct evidence in Guardant Health's submission of the FDA, this is JTX075, showing me that Guardant has identified nucleotide positions where comparing first and second strands are noncomplementary."). Plaintiffs' technical expert's testimony, paired with his citations to record 17 evidence, provided sufficient evidence for the jury to find that Defendant practiced the "identifying" limitation. The same is true of the "generating" limitation. See Tr. at 479:6-481:7; see also JTX-009.0166-67. Plaintiffs' technical expert testified that, when Defendant's software develops the consensus read, it does so only using complementary pairs. Tr. at 479:25-480:2 ("So it's exactly doing it only at the nucleotide positions where the compared strands are complementary."). Thus, Plaintiffs' technical expert again has relied on documents, in record evidence, and testified how, in his opinion, those documents showed that Defendant practices the "generating" limitation. The Court is unable to conclude that there was not sufficient evidence for the jury to find that Defendant practices the "generating" limitation. Turning to the ordering requirements of Claim 1 of the 631 Patent, Defendant contends that there is insubstantial evidence to support the jury's verdict in light of the Court's construction yegarding the order of the steps. D.I. 531 at 9-10, In relevant part, the jury was instructed as follows regarding the ordering of the steps: Some, but not all of the steps of claim 1 of the °631 patent must be performed in the order recited in the claims. Specifically, the "ligating" step must precede the "amplifying" step, which must precede the "sequencing" step. Likewise, the "comparing" step must precede the "identifying" steps, which must precede the "generating" step. Iterative or simultaneous performance is within the scope of the claims, provided that the steps listed above are performed in the order recited. But the "grouping," "separating," and "confirming" steps may be performed in any order, and the two "identifying" steps may be performed in either order. D,I. 490 at 19-20 (Final Jury Instructions) (emphasis added); see also Tr. at 1267:21-1268:9. A few factors are helpful to frame this issue. First, it is not disputed that Defendant's at-issue Bioinformatics Pipeline ("BIP") source code contains several modules, including "variant callex" and "digital BAM," and that data is sent from variant caller to digital BAM, but not vice versa. DI. 531 at 7 ("Guardant's bioinformatics pipeline includes multiple separate modules, including Variant Caller and Digital BAM."); D.I. 550 at 9; Tr. at 481:2-4 ("This is in a file called the digital

18 BAM. It's -- this program is run after the variant caller, so first they do variant caller, this is afterwatds."), 820:2-3 ("The digital BAM happens way after the variant caller is already done."). Second, during trial, Plaintiffs' technical expert found evidence of certain claim limitations m both the variant caller and digital BAM modules, See Tr. at 543:12-20 (Plaintiffs' technical expert, agreeing that he found evidence for certain claim elements in both the variant caller and digital BAM modules). Third, Plaintiffs' technical expert agreed on cross examination that he did not "emphasize" for the jury how different parts of the code were connected. See id. at 538:12-15. Rather, he "showed the line numbers in the code and exactly the functions that it came from... ." Id, at 538:19-21; see also id. at 538:3-7 ("I showed the jury many things but I showed line numbers in the source code, I think maybe for most of the demonstratives. And I was, actually, showing source code that operates in order."). Against this backdrop, Defendant asserts that Plaintiffs tack sufficient evidence that Defendant "performs the confirming step before the comparing, identifying, and generating steps." D.1. 531 at 10 (emphasis in original), Plaintiffs disagree. In response, Plaintiffs assert that their expert relied on code from lines 2171-77, lines 2180-97 and 2329-74, and lines 2362-66 of the variant caller source code for the "confirming," "comparing," and "identifying" steps, and found evidence of the "generating" step in "various locations," including variant caller and digital BAM. See DJ, 550 at 8-9, In reply, Defendant does not directly dispute the evidence presented by Plaintiffs' technical expert. D.I. 556 at 5-6. Instead, Defendant asserts (1) that Plaintiffs' technical expert relied upon certain additional portions of code in his discussion of the "confirming" step (lines 138-147 of variant caller) that run before the code he cited for the "separating" step; and (2) that Plaintiffs' technical expert relied upon portions of code for the "identifying" steps (lines 2848- 2861 of variant caller) that he again relied upon for the "generating" step. Even after considering 19 Defendant's arguments, the Court finds that the jury still had sufficient evidence from which it could conclude that Defendant's software performed the claim limitations in the order required by the Court's construction. Plaintiffs' technical expert pointed to exhibits showing that, in his opinion, Defendant's software runs the claimed steps in the order required by the Court's claim construction. Tr, at 538:19-21 ("I mean, I showed the line numbers in the code and exactly the functions that it came from, so it's in there."). In other words, whether the claimed steps were performed in order presented "factual disputes [that] were properly for the jury to decide," and the jury was entitled to credit Plaintiffs' expert over Defendant's experts to find that the 631 Patent was infringed. Verizon Servs. Corp. v. Cox Fibernet Virginia, Inc., 602. ¥.3d 1325, 1341 Fed. Cir, 2010). For the foregoing reasons, the Court denies Defendant's Motion for JMOL or New Trial with respect to non-infringement of Claim 1 of the °631 Patent. b. The Claimed Bioinformatics Steps of the '127 Patent For Claims 24 and 30 of the °127 Patent, the bioinformatics steps are the "grouping," "collapsing," "comparing," and "analyzing" steps of independent Claim 22. See °127 Patent at Claims 22, 24, 30, The "grouping" limitation recites "grouping the strand sequence reads into families based on i) the barcode sequence, and ii) DNA fragment-specific information." '127 Patent at Claim 22. Defendant asserts

that there is insufficient evidence to have found that Defendant practices this limitation, for similar reasons as set forth above in the corresponding "grouping" limitation of Claim 1 of the °631 Patent. See D.J. 531 at 6-7. The Court disagrees, As discussed above, Plaintiffs presented sufficient evidence from which a jury could find that Defendant practices the 20 "srouping" limitation. See Tr. at 435:2-437:1 (explaining the contents of an MK tag), 437:15- 438:14 (reviewing source code), The same is true for the remainder of the claim limitations. The "collapsing" limitation recites "collapsing a plurality of strand sequence reads within the families to provide a consensus sequence for each of at least some of the double-stranded DNA molecules in the library." °127 Patent at Claim 22. During trial, Plaintiffs' technical expert cited evidence showing, in his view, that Defendant's products meet this limitation via both variant caller and digital BAM. See Tr. at 439:1-14, 439:17-440:10; 441;10-20, 442:3-7 (describing BAM); 444:6-13; 444:16-445:4 (describing findings from digital BAM source code). Specifically, Plaintiffs' technical expert cited to Defendant's FDA submission which, in his opinion, showed a consensus between the two strands being analyzed. Jd. at 440:3-4 ("And Guardant Health is representing that a consensus has been generated."). Plaintiffs' technical expert then opined on evidence from the Guardant360 bioinformatics user guide, which again showed the "collapsing" limitation being practiced. Jd. at 442:3-4 ("So, first of all, it's describing how Guardant Health reports a consensus sequence."). Plaintiffs' technical expert then delved into the source code, which he stated showed the "collapsing" limitation being performed in multiple places. Jd. at 444:25-445-4 ("I found multiple sources of evidence in the documents for practicing or performing these steps, I also found in some cases multiple places in the source code where a step was being performed and this is one such case."), Thus, the Court concludes that the jury heard sufficient evidence to find that Defendant practiced the "collapsing" limitation. The "comparing" and "analyzing" limitations recite "comparing the consensus sequence to a reference sequence" and "analyzing one or more correspondences between the consensus sequence and the reference sequence to identify a sequence variation." '127 Patent at Claim 22. During trial, Plaintiffs' technical expert addressed both of these steps simultancously and testified 21 that he found support for Defendant's software practicing both of these elements in the variant caller source code. See Tr. at 446:24-447:12, 447:14-20 ("So, again, I looked at the source code for the step and this is showing out the part of the program I just referred to. It's called the variant caller, Indeed, that's where it's calling the sequence variations or where you saw in the previous document, the SNV, that's the variant, "V' for variant and I'm showing that I found it also in the code.""}; JTX-009.0036-70, The Court now turns to the ordering requirements of the Asserted Claims of the '127 Patent. In relevant part, the jury was instructed as follows regarding the ordering of the steps of Claim 22: "All the steps of [C]laim 22 of the °127 patent must be performed in order. Iterative or simultaneous performance is within the scope of the claims, provided that the steps are performed in the order recited." D.I, 490 at 20; see also Tr. at 1268:4-9. In other words, the required order is (1) "grouping," (2) "collapsing," (3) "comparing," and (4) "analyzing." Defendant contends that there is insufficient

evidence to show that its products practice these steps in the proper order, D.1. 531 at 8-9, Specifically, Defendant asserts that Plaintiffs' technical expert relied on variant caller code for the "grouping" limitation, digital BAM for the "collapsing" limitation, then variant caller code again for the "comparing" and "analyzing" limitations, even though it is not in dispute that digital BAM occurs after variant caller. Jd. at 9 (citations omitted), In response, Plaintiffs claim that their technical expert "showed evidence for two different ways" that Defendant practices the "collapsing" limitation: first, within variant caller; and second, within digital BAM. See D.L. 550 at 9-10 (citation omitted), Indeed, as the Court set forth above, Plaintiffs' technical expert did find sufficient support that Defendant practices the "collapsing" limitation within variant caller. See Tr, at 439:1-441:7;, JTX-075.0013-14. Since Plaintiffs' technical expert opined on technical documents that, in his view, showed that Defendant 22 practiced the "collapsing" limitation within variant caller, the jury was entitled to find that Defendant's software performed the claim limitations in the order required by the Court's construction. Moreover, Plaintiffs' technical expert specifically stated that the "comparing" limitation was practiced twice, one "much later on after the grouping and the collapsing" limitations were practiced by Defendant's products. Tr. at 447:8-9. Thus, the jury heard sufficient evidence to find that the elements of the Asserted Claims of the ? 127 Patent were performed in the order required by the Court's claim construction. For the foregoing reasons, the Court denies Defendant's Motion for JMOL or New Trial with respect to non-infringement of Claims 24 and 30 of the °127 Patent.

2. Defendant's Services

The jury's verdict included $106 million for sales of Defendant's services in the royalty base. See D.I. 497 at 5. Defendant's third basis for JMOL pertains to the issue of non-infringement with respect to its accused services: Companion and Explore. D.1. 531 at 10-13. In Defendant's view, JMOL is proper because Plaintiffs' technical expert "conceded" non-infringement. See id. Defendant relies, in particular, on the following exchange during the cross-examination of Plaintiffs' technical expert: Q. The Companion and Explore software that's sold separately by Guardant that you've accused of independently infringing the patents, when they -- the software Companion and Explore are operating, they don't practice any claim limitations of Claim 1 of the °631 patent, correct? A. Lagree that the software, after the fact of the services, they don't perform these claims, I agree with that. Q. Okay. Thank you, That would mean they don't infringe, right? A. Well, they —I agreed with you that they don't perform the steps. But because they require running the product, when the product is run, there's infringement, so the service is infringing in that sense. 23 Q. What do you mean 'in that sense'? You said the product infringes. But the services need to infringe on their own to be an accused product, right? A. Yeah, J think I -- yes. D.I. 531 at 12 (quoting Tr. at 530:2-19); see also Tr, at 525:23-25 (Plaintiffs' technical expert, testifying that "to use the services requires all of those steps to have been performed, and that's why I included those services"), Plaintiffs disagree that their expert conceded non-infringement and contend that the jury's verdict is supported because the Defendant's services "use

Guardant360, which performs the claims." D.I. 550 at 11 (citations omitted); see also Tr. at 409:14-20 (Plaintiffs' technical expert, testifying that "these are services for pharma companies, but in performing the service, Guardant is using the products that we just saw previously" and "it's using the same products and that's why it's infringing"), 529:15-19 (similar). Furthermore, at oral argument, Plaintiffs identified testimony where a Guardant employee testified that samples that "need[] to be processed in [] labs [| will be" processed at a Guardant facility in either Redwood City or San Diego. Tr. at 365:11- 16; see also id, at 365:17:21 ("Q, Is that for -- so regardless of where the sample is collected from, either in the United States or outside of the United States, the samples are then sequenced by Guardant in the United States; is that correct? A. Currently, that is correct."). The Court agrees with Plaintiffs. "It is axiomatic, of course, that in order for infringement of a method patent to lie, all claimed steps of the method must be performed." Holtz v. Conexant Sys., Ine., 56 F. App'x 470, 473 (Fed. Cir. 2002) (citing EMI Group N. Am., Ine, v. Intel Corp., 157 F.3d 887, 896 (Fed, Cir. 1998)). There is substantial evidence that Defendant's services perform all steps of the Asserted Claims. 24 Plaintiffs' theory of infringement for Defendant's services is that "in performing the service, Guatdant is using the products that" the jury found to infringe. Tr. at 409:17-18. Plaintiffs' technical expert testified that when an accused service was purchased, sequencing data needed to perform the service was necessarily obtained by sequencing a sample on an accused product. Tr. at 409:14-20. Furthermore, a Guardant employee testified that "regardless of where the sample is collected from, either in the United States or outside of the United States, the samples are then sequenced by Guardant in the United States," Tr. at 365:17-20. Thus, the jury was presented with substantial evidence that Defendant itself rans the samples from the accused services on the accused products, and therefore the jury was entitled to find that the accused services infringe. Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1206 (Fed. Cir. 2010) ("To infringe a method claim, a person must have practiced all steps of the claimed method." (quoting Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1317 (Fed. Cir. 2009))). On cross-examination, Defendant did elicit testimony from Plaintiffs' technical expert that the data analyzed by Defendant's services is generated by other companies running samples on the accused products, Tr, at 525:07-14, However, the jury was entitled to credit the testimony offered to show infringement, and discredit the testimony elicited that rebutted infringement, even if offered by the same witness. N.L.R.B. v. Boyer Bros., 448 F.2d 555, 561 (3d Cir, 1971) (This argument overlooks the right of the factfinder to give such credence to any given part of her testimony as he may think it deserves,"'). Defendant's assertion that Plaintiffs' improperly "double-counted" revenue from the accused products and the accused services likewise fails. Defendant contends, in a single sentence in its opening brief, that "allowing [Plaintiffs] to recover damages on services — on top of damages on products — would amount to a double recovery and violate the principles of exhaustion." D.L. 25 531 at 13. However, Plaintiffs' damages expert testified that the sales of Defendant's accused products and accused services are subject to separate accounting. Tr. at 612:03-05. Thus, the Court agrees with

Plaintiffs that the testimony from its expert plausibly shows, on its face, that Defendant separately accounts for revenue from its accused services and its accused products. Oral Arg. Tr. at 32:18-20, For the foregoing reasons, the Court denies Defendant's Motion for JMOL or a New Trial with respect to Defendant's accused services.

3. Willfulness

"To establish willfulness, the patentee must show the accused infringer had a specific intent to infringe at the time of the challenged conduct." Bayer Healthcare LLC y. Baxalta Inc,, 989 F.3d 964, 987 (Fed. Cir, 2021) (citing Halo Elecs., Inc. v, Pulse Elees., Inc., 579 U.S. 93 (2016)). "Knowledge of the asserted patent and evidence of infringement is necessary, but not sufficient, for a finding of willfulness. Rather, willfulness requires deliberate or intentional infringement." Id. at 988 (citing Eko Brands, LLC v. Adrian Rivera Maynez Enters., Inc., 946 F.3d 1367, 1378 (Fed. Cir, 2020)). "Technically speaking, 'willful infringement' is not an independent claim for relief; rather, it is a factual finding that may support a court's decision to increase infringement damages under 35 U.S.C. § 284." Sight Scis., Ine. v. Ivantis, Inc., C.A. No. 91-1317-JLH-SREF, 2026 WL 851257, at *9 (D. Del. Mar. 27, 2026) (first citing 35 U.S.C. § 284; and then citing Jronburg Inventions Lid. v. Valve Corp., 64 F.4th 1274, 1295 (Fed. Cir, 2023)), As set forth below, the Court exercises its discretion not to enhance damages. "Nevertheless, Federal Circuit precedent requires district courts to 'provide] a ruling' on a party's request for JMOL that any infringement was not willful, 26 even when the court does not increase damages." Jd. (quoting Jronburg, 64 F.4th at 1295). Accordingly, the Court will now address Defendant's request for JMOL of no willfulness. The jury found that Defendant's infringement was willful. D.I. 497 at 3. Defendant contends that there is insufficient evidence to support the jury's willfulness verdict and requests JMOL or a new trial on willfulness.4 D.J. 531 at 13-16. Defendant's primary contention is that there is insufficient evidence of "copying" and, in consequence, Defendant's intent. See id. at 13-15, Plaintiffs oppose. The focus of Plaintiffs' opposition centers around several pre-issuance activities, including allegations that Defendant copied technology disclosed in a paper published in 2012 by a named inventor of the patents, Dr. Schmitt, and unsuccessful pre-issuance licensing negotiations between the parties involving the same technology. See D.I. 550 at 13-18. The Court begins its analysis with a few legal principles, First, "[i]t is obvious that a party cannot be held liable for 'infringement', and thus not for 'willful' infringement, of a nonexistent patent, ic., no damages are payable on products manufactured and sold before the patent issued," Gustafson, Inc. v. Intersystems Indus. Prods., Inc., 897 F.2d 508, 510 (Fed. Cir, 1990) (emphasis in original); see also Bioverativ Inc. vy. CSL Behring LLC, C.A. No. 17-914-RGA, 2020 WL 1332921, at *2 (D. Del. Mar. 23, 2020) ("There can be no willful infringement before a patent is issued."), The parties agree on this principle, D.1. 531 at 14 (citing Gustafson, 897 F.2d at 510); D.1. 550 at 13 0.6. Second, "[c]opying a product which is not protected by the patent laws is not illegal and does not constitute infringement." Bioverativy, 2020 WL 1332921, at *3 (citation omitted). 4 Tn its briefing, Defendant does not dispute that it had notice of the Asserted Patents prior to suit. See

also Tr. at 350:14-351:12 (reading into the record Defendant's response to one of Plaintiffs' interrogatories requesting when Defendant first became aware of each Asserted Patent). 27 While "willfulness is generally based on conduct that occurred after a patent issued, pre- _ conduct may also be used to support a finding of willfulness." /d. (quoting Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1581 (Fed. Cir. 1992) (reasoning that it was "completely proper" to base a willful patent infringement finding in part on pre-issuance conduct involving the misappropriation of trade secrets); see also Stryker Corp. v. Davol, Inc., 75 ¥. Supp. 2d 748, 750 (W.D. Mich, 1999), aff'd, 234 F.3d 1252 Wed. Cir. 2000) ("Davol's undisputed pre-patent copying is probative of willfulness, but should not be given undue weight." (citations omitted)); Bioverativy, 2020 WL 1332921, at *2 ("Pre-patent copying of the invention, for example, is relevant to the defendant's state of mind after issuance." (citation omitted)). In this action, the jury heard evidence that Dr. Schmitt, one of TwinStrand's founders, published a paper in the Proceedings of the National Academy of Sciences (the "Schmitt Article"). Tr, at 167:3-6, 186:15-18 (Dr. Schmitt, in response to a question asking when he "share[d] [his] invention with the world," answering that it was when he published the Schmitt Article, "the first paper on the method"), PTX-112. 5 In their briefing and at trial, the parties referred to this document as the "Schmitt Article" or "Schmitt Paper." Dr. Schmitt was the named first author of the Schmitt Article, PTX-112; see also Tr. at 186:25, During trial, neither parties' witnesses explicitly compared the Schmitt Article to the Asserted Claims, However, Dr. Schmitt agreed that the publication of the Schmitt Article was when he shared the invention with the world, Tr. at 186:15-18; Plaintiffs' technical expert testified that Defendant's products infringed the Asserted Claims, which "came out of the same invention that's described in [the Schmitt Article]," id at 487:8-20; one of Defendant's experts testified that the Asserted Patents "both describe exactly the same DCS —- duplex consensus sequencing — process," id. at 976:5-8, and that the Schmitt Article "describes. . . the DCS method," id. at 988:12-19; and even counsel for Defendant remarked during opening statements that the Schmitt Atticle "explains [Plaintiffs'] invention," id. at 136:22-24, Thus, to the extent that Defendant contends its alleged copying of the Schmitt Article is not at all probative of its post- issuance intent, the Court is not persuaded, 28 The jury also saw evidence that Defendant's founders were quickly aware of and interested in the DNA sequencing method described in the Schmitt Article. See, e.g., PTX-147; PTX-111; see also 'Tr. at 681:8-19. The jury also heard evidence that, by October 2012, Defendant had conducted laboratory experiments regarding the method, memorialized in a 2012 laboratory notebook. See, e.g., JTX-067; Tr. at 388:2-390:19. During trial, the parties' witnesses offered diverging theories regarding these experiments. On one hand, Plaintiffs' technical expert testified that the notebook showed that the researcher was "implementing what's in [the Schmitt Article]" and that he disagreed with any suggestion that Defendant had given up on the approach described in the Schmitt Article. See Tr. at 390:7-19. Defendant's witnesses offered a different story, including that the operative version of the source code relied upon by the experts (BIP version 3,5,4) had been substantially rewritten

between 2016 and 2018, See, e.g., Tr. at 757:19-758:24. Beyond the evidence relating specifically to the Schmitt Article, the jury heard from the parties regarding Defendant's unsuccessful efforts to license the relevant technology. See, e.g., id. at 300:15-20, 302:20-307:24, 308:3-11; JTX-081; JTX-082; JTX-119. Ultimately, "[flactual questions pertaining to the willfulness determination are quintessential jury determinations." Wirtgen Am., Inc. y. Caterpillar, Inc., No. 1:.17-CV-00770- □ IDW, 2024 WL 4216057, at *10 (D. Del. Sept. 17, 2024) (citations omitted); see generally Allen Organ Co, v. Kimball Int'l, Inc., 839 F.2d 1556, 1567 (Fed, Cir. 1988) ('Intent is a factual determination particularly within the province of the trier of fact."). Given the evidence presented at trial, the Court is not persuaded that the jury's willfulness verdict is not supported by sufficient evidence. Rather, the jury could find, from the evidence presented at trial, that any infringement by Defendant was "deliberate or intentional." For the foregoing reasons, Defendant's request for JMOL or a new trial on willfulness is denied. 29 4, The Damages Award A patentee is entitled to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty... ." 35 U.S.C. § 284. "A jury's damages award must be upheld unless the amount is grossly excessive or monstrous, clearly not supported by the evidence, ot based only on speculation or guesswork." Altria Client Servs. LLC v. R.J. Reynolds Vapor Co., No. 2023-1546, 2024 WL 5165456, at *3 (Fed, Cir. Dec. 19, 2024), cert. denied, 146 8. Ct. 201
(2025) (quoting Bio-Rad Labs., Inc. v. LOX Genomics Inc., 967 F.3d 1353, 1373 (Fed. Cir. 2020)).

The jury awarded $83.4 million in damages, arriving at this damages number by applying a 6% royalty rate to a $1.39 billion damages base, including $106 million from sales of Defendant's services. D.J. 497 at 4-5. This number fell within the range of damages proffered by Plaintiffs' damages expert, Dr. McDuff, who offered two damages analyses at trial: an economic contribution analysis, and a comparable license analysis. See, e.g., Tr. at 601:2-9 (describing his "economic contribution" analysis as an analysis that "compared to the product as a whole, what portion of the product derives its value from the claimed subject matter"), 602:1-604:7 (discussing apportionment, his discussions with Dr. Pachter, and his reliance on Dr. Pachter's analysis of the technical contributions ftom each of the phases of Defendant's workflow), 613:5-20 (testifying that his economic contribution analysis yielded a total of $102.8 million), 614:5-615:17 (describing his comparable license approach, which was based upon rates from a license agreement between Defendant and a third-party), 621:13-23 (testifying that his comparable license analysis yielded a total of $82.2 million). Defendant contends that there is no substantial evidence to support the jury's damages award. DI. 531 at 16-19. In Defendant's view, the two analyses proffered by Plaintiffs' damages expert were unreliable and not tied to the facts of the case. See id. As relevant here, Defendant 30 filed a motion seeking to exclude Dr. Pachter's technical contribution opinion, which the Court denied, See D.I. 465 at 12. Similarly, Defendant filed a motion seeking to exclude Dr. McDuff's comparable license opinions, which the Court granted-in-part and denied-in-part. See id, at 17; see also id. at 19 ("The Court finds McDuff's conclusion

that the [agreement between Guardant and the third-party] contains sufficiently consparable built-in apportionment reliable."). Defendant's post-trial briefing explicitly refers to its Daubert arguments on these issues and asserts that, during trial, Plaintiffs' experts made the "same errors." D.I. 531 at 17-18; see also DI. 556 at 9 (agreeing that "the post-judgment debate about damages mostly reflects the issues that were presented and preserved at the Dauber? stage"); D.I. 610 at 8-10. To the extent Defendant seeks to relitigate the reliability of Plaintiffs' experts and their methodology regarding these issues, the Court is unpersuaded substantially for the reasons set forth in its decision resolving the parties' Daubert motions. See, e.g., Ravgen, Inc. y. Lab'y Corp. of Am. Holdings, C.A No. 6:20-00969-ADA, 2025 WL 572753, at *2 (W.D. Tex. Feb. 12, 2025) ("A motion for a new trial should not be used as a vehicle to renew a Daubert challenge or relitigate matters the Court has already decided." (citations omitted); Midwest Energy Emissions Corp. v. Arthur J. Gallagher & Co., 810 F. Supp. 3d 504, 517 (D. Del. 2025) ("The Court denies CERT's Motion [for a new trial] on this ground in significant part for the same reasons as it previously discussed in its lengthy ruling in the Daubert decision.").° In any event, the Court is not persuaded that there is not substantial evidence supporting the jury's damages award. See, ¢.g., Tr. at 489:9-494:13, 601:2- 6 To the extent Defendant seeks to relitigate the admissibility of this evidence, the Court is similarly unpersuaded. See also Energy Transp. Grp., Inc. v. William Demant Holding A/S, 697 F.3d 1342, 1355 (Fed. Cir. 2012) ("The Third Circuit requires a party challenging the district court's evidentiary ruling to demonstrate that the district court acted irrationally and arbitrarily." (citing Iv re Paoli R.R. Yard PCB Litig., 113 F.3d 444, 453 (3d Cir. 1997)). 34 9, 602:1-604:7, 604:10-605:4, 613:5-614:2, 614:5-615:5, 621:13-23. Although Defendant may disagree with Dr. McDuff's damages opinions, the jury heard them and could determine whether it agreed or disagreed with Dr. McDuff's damages opinions in whole or in part. See Lightning Lube, 4 F.3d at 1166; Bio-Rad, 967 F.3d at 1375. It is not within the Court's purview to go back and overrule the jury's credibility determinations or decide who the jury should have believed m reaching its damages award. For the foregoing reasons, Defendant's request for JMOL or a new trial on damages is denied. B. Plaintiffs' Enhanced Damages Motion Plaintiffs' Enhanced Damages Motion seeks six forms of relief: (1) enhanced damages; (2) attorneys' fees and costs; (3) ongoing royalties; (4) supplemental damages; (5) pre-judgment interest; and (6) post-judgment interest. D.1. 532, The Court addresses each in turn.

1. Enhanced Damages

Plaintiffs seek enhanced damages under Section 284. See 35 ULS.C. § 284 (providing that "the court may increase the damages up to three times the amount found or assessed"). "Although willfulness is a component of enhancement, 'an award of enhanced damages does not necessarily flow from a willfulness finding." SRJ Jnt'l, Inc. v. Cisco Sys., Inc., 14 F Ath 1323, 1330 (ed. Cir. 2021) (quoting Presidio Components, Inc. v. Am. Tech, Ceramics Corp., 875 F.3d 1369, 1382 (Fed. Cir. 2017)); see also Halo, 579 U.S, at 103-04 ("The sort of conduct warranting enhanced damages has been variously described in our cases as willful, wanton, malicious, bad-faith,

deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate."). The parties briefed the issue of enhanced damages, at least in part, considering the factors set forth in Read Corp. v. Portex, Inc., 970 F.2d 816 (Fed. Cir. 1992), abrogated in part on other grounds by Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). See DI. 535; DI. 548, 32 While district courts are "not required to analyze the Read factors in making an enhancement determination," the Federal Circuit has found it to be an "appropriate method." Tis. of Columbia Univ. in City of New York v. Gen Digital Inc., 169 F.4th 1320, 1340 (Fed. Cir. 2026). The Read factors are (1) "whether the infringer deliberately copied the ideas or design of another"; (2) "whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed"; (3) "the inftinget's behavior as a party to the litigation"; (4) "Defendant's size and financial condition"; (5) the "[c]loseness of the case"; (6) the "[dJuration of defendant's misconduct"; (7) "TrJemedial action by the defendant"; (8) "Defendant's motivation for harm", and (9) "[wjhether defendant attempted to conceal its misconduct." Read, 970 F.2d at 827 (cleaned up). Plaintiffs contend that the Read factors support enhancement because Defendant "directly copied" Plaintiffs' inventions, see D.L 535 at 3-6 (citing Read factors 1, 2, 6, 7, 8, and 9); Defendant engaged in "vexatious and unreasonable litigation conduct," see id. at 6-14 (citing Read factors 2, 3, 5, and 6); the case was not close, see id, at 14 (citing Read factor 5); and Defendant is a market leader, see id. at 14-15 (citing Read factor 4), The Court disagrees and addresses the Read factors in turn. Read factor one is neutral, Plaintiffs focus on the evidence of copying summarized above. See D.I. 535 at 3-6. However, while "the jury was free to find that [Defendant] copied, the evidence of copying is not overwhelming, nor is there any evidence of particularly egregious copying." Purewick Corp. v. Sage Prods. LLC, 666 F. Supp. 3d 419, 447 (D. Del. 2023) (alteration in original) (quoting Siemens Mobility, Inc. v. Westinghouse Air Brake Techs. Corp., No. 16-284-LPS, 2019 WL 3240521, at *8 (D. Del. July 18, 2019)). As discussed above, while Plaintiffs presented evidence tending to show that Defendant may have copied from the Schmitt 33 Article, this occurred years before issuance of the Asserted Patents, both of which issued years after Defendant contended at trial that it substantially rewrote the underlying source code at issue. Thus, the Court concludes that this first Read factor is neutral. See id. (Read factor one was neutral where "Plaintiff presented evidence that Defendant had the opportunity to copy its product" and "Defendant presented evidence that it was critical of Plaintiff's design and sought to design a better product'). Read factor two weighs in favor of enhancement. This factor is often resolved by the jury's finding of willfulness. See Acceleration Bay LLC y, Amazon Web Servs., Inc., C.A No. 22-904-RGA, 2026 WL 837160, at *25 (D. Del. Mar. 26, 2026) ("Based on the discussion above which supported the jury's finding of willful infringement, there is a presumed finding that Defendant did not have a reasonable basis for believing it was not liable"). Here, the jury returned a willfulness finding, which the Court found above was supported by substantial evidence. With respect to Read factor three, "'litigation misconduct' refers to bringing vexatious or unjustified

suits, discovery abuses, failure to obey orders of the court, or acts that unnecessarily prolong litigation." VB Assets, LLC v, Amazon.com Servs. LLC, 751 F. Supp. 3d 391,414 (D. Del. 2024), appeal dismissed, No, 2025-1113, 2025 WL 752344 (Fed, Cir. Mar. 10, 2025), and appeal dismissed, No. 2025-1854, 2026 WL 1166420 (Fed. Cir. Apr. 29, 2026), order corrected and superseded, No. 2025-1854, 2026 WL 1205642 (Fed. Cir. Apr, 29, 2026), and appeal dismissed, No, 2025-1854, 2026 WL 1205642 (Fed. Cir. Apr. 29, 2026) (citation omitted). Plaintiffs raise a series of issues regarding Defendant's litigation conduct, asserting that Defendant "flip-flop{ped]" its position on efDNA, pursued defenses that lacked merit, attempted to "circumvent" the Court's orders, cited bad case law to the Court, and made inflammatory statements during trial, See D.1. 535 at 6-13. Defendant has a response for each of these issues and counters that Plaintiffs, not 34 Defendant, have "flip-flopped." D.1. 548 at 9-15. "[F]Jor at least some of the issues, Defendant's position rings true to the Cowt." Purewick, 666 F. Supp. 3d at 447,' Both sides have vigorously and zealously advocated in this action over the past several years, Having thoroughly considered this factor, when viewed as a whole and over the course of the litigation, this factor is at most neutral. See Purewick, 666 F. Supp. 3d at 447 ("[Cjonsidering Defendant's litigation conduct as [a] whole, the Court is unpersuaded that it rose to the level of 'malicious' behavior required to support an award of enhanced damages. This case was fiercely fought, with both sides' conduct contributing to the occasionally heated nature of the proceedings. Therefore, this factor is, at most, neutral."). As for Read factor four, Plaintiffs assert that Defendant is a market leader with significantly more resources than TwinStrand. See D,I. 535 at 14-15. Defendant does not directly dispute this assertion. Instead, Defendant asserts that the corresponding difference in size is militated by the fact that UW, a large research institution with substantial resources, was also a plaintiff in this action. D1. 548 at 16. Ultimately, the Court finds that this factor is neutral. Cf Siemens Mobility, 2019 WL 3240521, at *9 ("Westinghouse is a large, financially successful company. But the fact that Westinghouse could afford to pay an additional million dollars or so in damages does not provide a reason, under the circumstances here, to order it to do so."), VB Assets, 751 F. Supp. 3d 7 The Court previously found that Defendant had violated the Court's order regarding case narrowing. See D.1. 466 at 2; see also id. at 5 (noting that these "violations of the narrowing order were significant and could give rise to an inference of bad faith"). In conducting the subsequent analysis under Meyers y. Permypack Woods Home Ownership Ass'n, 559 F.2d 894 (3d Cir. 1977), the Court declined to exclude the relevant evidence. See D.I, 466 at 3, 5 (noting that the fourth Pennypack factor, bad faith or willfulness in failing to comply with the court's order, "Jackfed] significant weight when, at least in part, both parties violated the narrowing order, the motion to strike was late, and there was relatively little prejudice"). 35 at 415 ("The Court therefore will consider this factor as having a neutral effect, but not as a reason to support enhancement." (citation omitted). Read factor five weighs strongly against enhancement. Plaintiffs generaily contend that this case was "not close," citing the relative speed with which the jury reached a verdict. The Court is not convinced by Plaintiffs' assertions. First, Defendant

"presented 'considerable evidence in support of [its] assertions of noninfringement,'" Veerura Ltd. v. GlaxoSmithKline LLC, C.A. No. 16-638-RGA, 2019 WL 4346502, at *4 (D, Del. Sept. 12, 2019) (citation omitted). Second, the Court is hesitant to view Defendant's decision not to send invalidity to the jury as a concession that its case was lacking in merit, as Plaintiffs appear to contend. Cf D.I, 535 at 14. Third, the scope of this action changed substantially in the weeks leading up to trial, including because Plaintiffs dropped two of the four then-asserted patents roughly three weeks before trial. See D.1. 441; DJ. 450, Fourth, throughout the course of this action, both parties won their fair share of arguments and motions. Read factors six and seven carry relatively little weight in this particular action. For both of these factors, "Plaintiff[s] fail[] to cite any evidence of 'egregious conduct' on the part of Defendant that rises to the level of 'malicious' behavior required to support an award of enhanced damages." Purewick, 666 F, Supp. 3d at 447-48, Read factor eight weighs against enhancement. In the present case, it appears that "Defendant's motivations can best be understood as 'pursuant to a financial motive [which] does not distinguish this case from the garden-variety infringement case.'" Acceleration Bay, 2026 WL 837160, at *26 (quoting Idenix Pharms. LLC y. Gilead Scis., Inc., 271 F. Supp. 3d 694, 702 (D. Del. 2017). 36 Read factor nine weighs against enhancement. There does not appear to be any dispute that Defendant hid its products or sales. See, e.g., Veetura, 2019 WL 4346502, at *5 (Read factor nine weighed against enhancement where there was "no dispute between the parties that the accused products were openly sold"); VB Assets, 751 F. Supp. 3d at 416. On balance, having assessed each of the pertinent Read factors and giving each factor careful and appropriate weight in light of the circumstances presented, the Court finds that enhancement is not warranted under the circumstances of this case. Some factors weigh against enhancement, including the closeness of the litigation, Defendant's lack of motivation to harm, and Defendant's lack of concealment, while others weigh in favor of enhancement, and finally others are neutral. Considered in the whole and in view of the full litigation, the Court finds that Defendant has not engaged in the sort of conduct that warrants enhanced damages under Halo and its progeny. 2, Attorneys' Fees and Costs In "exceptional cases," the Court "may award reasonable attorney fees" under Section 285, 35 U.S.C, § 285. An "exceptional case" is "one that stands out from others with respect to the substantive strength of a party's litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated." Octane Fitness, LLC v. ICON Health & Fitness, Inc., 572 U.S. 545, 554 (2014). The Supreme Court has eschewed any "precise rule or formula for making these determinations" in favor of the exercise of equitable discretion. Jd. (quoting Fogerty v. Fantasy, Inc., 510 U.S. 517, 534 (1994)), While the record reflects that this litigation was, at times, needlessly contentious, and the Court found, in one instance, that Defendant's action could give rise to an inference of bad faith, for the reasons set 37 forth above, the Court cannot conclude that this case was "exceptional" under cither prong of Octane Fitness. Thus, the Court declines to award reasonable attorney fees under Section 285. 3, Ongoing Royalties In some circumstances, district courts may award ongoing royalties for post-

verdict patent infringement. See Arctie Cat Inc. vy. Bombardier Recreational Prods. Inc., 876 F.3d 1350, 1370 (Fed, Cir, 2017). In Amado v. Microsoft Corp., the Federal Circuit recognized a "fundamental difference" between "a reasonable royalty for pre-verdict infringement and damages for post- verdict infringement." 517 F.3d 1353, 1361 (Fed. Cir, 2008) (citing Paice LLC v, Toyota Motor Corp., 504 F.3d 1293, 1317 (Fed. Cix, 2007)); XY, LLC v. Trans Ova Genetics, 890 F.3d 1282, 1297 (Fed. Cir. 2018) (same). This fundamental difference accounts for the "markedly different" calculus associated with the entry of judgment. Amado, 517 F.3d at 1362. Asa result, the Federal Circuit has instructed district courts to consider the "change in the patties' bargaining positions, and the resulting change in economic circumstances, resulting from the determination of liability" and "changed economic circumstances, such as changes related to the market for the patented products." Trans Ova, 890 F.3d at 1297 (citations omitted). "Ongoing royalties may be based on a post-judgment hypothetical negotiation using the Georgia-Pacific factors." Arctic Cat, 876 F.3d at 1370 (citing Fresenius USA, Inc. v. Baxter Int'l, Inc., 582 F.3d 1288, 1303 (Fed, Cir. 2009)). In the initial round of post-trial briefing, the parties did not dispute, at least in principle, the award of an ongoing royalty for Defendant's continued sales. D.I. 535 at 15-18; D.I. 548 at 17 38 ("Guardant does not oppose in principle an ongoing royalty.").2 The parties do dispute the appropriate ongoing royalty rate. Plaintiffs request between 9.5% and 13%, but no Jess than the 6% rate awarded by the jury. D.I. 535 at 15; see also DI. 533 { 19. Plaintiffs arrive at this number by multiplying a rate of 4.5% by a multiplier of 2 to 3. See DI. 535 at 18. This 4.5% rate, in turn, "corresponds to an effective 4.5% royalty rate for products sold at highest-tier sales volumes (accounting for Guardant's increased contributions to product success) using the royalty rate structure [Plaintiffs' damages expert] testified the parties would agree to during a hypothetical negotiation." Jd. (citing D.I. 533 § 16); see also D.I, 533 { 16 (observing that the jury's verdict, which was a flat 6% royalty, "may indicate that a flat 6% royalty rate is appropriate going forward"), Defendant initially suggested that the appropriate rate should be no higher than 4.5%. See DL. 548 at 17? The Court begins with the jury's awarded rate of 6%. See Apple, Inc. v, Samsung Elecs. Co., C.A, No. 12-00630-LHK, 2014 WL 6687122, at *14 (N.D. Cal, Nov. 25, 2014) ("Generally, the jury's damages award is a starting point for evaluating ongoing royalties."); Arctic Cat Inc, v. Bombardier Recreational Prods., Inc., No, 14-CV-62369, 2017 WL 7732873, at *2 (S.D. Fla. Jan. As discussed in Section [IL.C, through its Rule 60(b) Motion, Defendant now opposes ongoing royalties as it pertains to the °631 Patent. However, for the reasons set forth in Section the Court denies Defendant's Rule 60(b) Motion, ? The Court permitted the filing of supplemental briefing with respect to this issue. 606; see also ActiveVidea Networks, Inc. v. Verizon Comme'ns, Inc., 694 F.3d 1312, 1343 (Fed. Cir. 2012) (noting that district courts may consider "additional evidence" of "economic circumstances that may be of value in determining an appropriate ongoing royalty"). In its supplemental briefing, Defendant again asserted that the Cowt should not award a royalty rate higher than 4.5% and further suggested that the proper rate should be no higher than 1.5%. D.L 610 at 6-7, This lower rate is predicated upon two licensing

agreements that post-date the post- verdict hypothetical negotiation. Compare D.I, 533 §{8-9 (contemplating a post-verdict negotiation in February 2024) and D.I. 551 13 (same), with DI. 610-1 and DiI. 610-2. 39 3, 2017), aff'd, 876 F.3d 1350 (Fed. Cir. 2017) ("[T]he jury's reasonable rate for past damages sets the floor for the determination of an ongoing royalty rate. Therefore, the ultimate rate set by the Court will necessarily be equal to, or exceed the rate for past damages."). Plaintiffs advance three reasons why changed circumstances justify an upward enhancement from the jury awarded rate: first, that the jury found Defendant's infringement to be willful; second, that Plaintiffs expended significant resources to enforce its patents; and third, that Defendant has enjoyed commercial success in its infringing sales. See DI, 535 at 15-18. Plaintiffs' first reason is predicated on Plaintiffs' theory that, "should the Court find that Guardant's litigation behavior warrants enhanced damages, a 6% ongoing royalty by itself (absent enhancement) would do little to acknowledge Guardant's willful and continuing infringement, much less compensate TwinStrand for such ongoing infringement." Jd. at 17, As discussed above, the Court has already found that Defendant's litigation behavior did not warrant enhanced damages; thus, the Court rejects Plaintiffs' first rationale for enhancement from the jury's award. As for the second reason, Plaintiffs seek enhancement because, in Plaintiffs' view, other potential infringers would see "[Defendant's] continued infringement as a low-cost option... ." Jd. at 17. The Court is similarly unpersuaded by Plaintiffs' second argument for an upward enhancement, since the jury awarded a royalty rate that was already near the high-end of the rates proffered at trial and Plaintiffs have not shown how the expense of resources in this action would permit Plaintiffs to negotiate a higher rate than that determined by the jury. See Purewick, 666 F, Supp. 3d at 449-50 ("Although Plaintiff may be in a stronger bargaining position post-verdict, Plaintiff points to no other circumstances that indicate it would be able to negotiate a rate higher than the tate determined by the jury." (footnote omitted)). The same is true for Plaintiffs' third proffered 40 reason. To the extent that Defendant has continued to find commercial success in sales of its products, as Plaintiffs allege, Plaintiffs will be compensated via an increased royalty base. The Court also has thoroughly considered Defendant's contentions as to why the proper rate should be beneath that awarded by the jury in light of, infer alia, downward pressures from the highest-tier sales volumes. However, the Court is ultimately not convinced that Defendant, an adjudicated willful infringer, would be able to negotiate a rate lower (or even substantially lower) than the rate awarded by the jury in a post-verdict hypothetical negotiation, especially given Plaintiffs' improved bargaining position. For the foregoing reasons, the Court will award ongoing royalties at a rate of 6% for the adjudicated products, which is the same royalty rate awarded by the jury. 4, Supplemental Damages for Infringing Sales "District courts have discretion to award damages for periods of infringement not considered by the jury." Whitserve, LLC v. Computer Packages, Inc., 694 F.3d 10, 38 (Fed, Cir. 2012) (citing Fresenius, 582 F.3d at 1303). "Assessing and computing supplemental damages 'is within the sound discretion of the district court." Sunoco Partners Mktg. & Terminals LP. v. Powder Springs Logistics, LLC, No, 2023-1218, 2026 WL 122544, at *14

(Fed. Cir. Jan. 16, 2026) (quoting Bayer, 989 F.3d at 985). Plaintiffs seek an accounting for Defendant's infringing sales from July 1, 2023 to February 5, 2024. DI. 535 at 18-19. Defendant "agrees in principle" with an award of supplemental damages. D.I. 548 at 20. However, Defendant disagrees with Plaintiffs' proffered rate of 6%. Compare D.1. 535 at 19 (proposing a 6% royalty rate), with D.I, 548 at 20 (proposing a 4.5% rate). Having considered the patties' contentions, the Court will exercise its discretion and award 4} supplemental damages for Defendant's sales of infringing products from July 1, 2023, to February 5, 2024 at arate of 6%.

5. Pre-Judgment Interest

"Prejudgment interest is awarded to restore a plaintiff to the position it would have been in had there been no wrongdoing." Purewick, 666 F. Supp. 3d at 450 (citation omitted). Plaintiffs request pre-judgment interest at the prime rate, compounded quarterly, on the jury's verdict and any supplemental damages awarded by the Court. D.1. 535 at 19-20. "The prime rate is by far the most common practice in the District of Delaware." Purewick, 666 F. Supp. 3d at 451 (collecting cases); see also id, ("The Court will assess prejudgment interest compounded quarterly at the prime rate."). Defendant does not oppose this request. D.I. 548 at 1, 20. Accordingly, the Court will grant Plaintiffs' request for pre-judgment interest at the prime rate, compounded quarterly, on the jury's verdict and the supplemental damages awarded by the Court in the preceding subsection.

6. Post-Judgment Interest

Section 1961 (a) provides that "[p]ost-judgment interest is mandatory for damages awarded in civil cases." Purewick, 666 F. Supp. 3d at 451-52 (citing 28 U.S.C. § 1961{a)). Plaintiffs seek post-judgment interest at a rate of 4.76%. D.I. 535 at 20 (citing D.I. 533 7). Defendant does not oppose Plaintiffs' request for post-judgment interest or dispute this rate. D.f. 548 at 20. Accordingly, the Court will grant Plaintiffs' request for post-judgment interest at a rate of 4.76%, "(Plost-judgment interest on the prejudgment interest award does not begin to accrue until the amended judgment quantifying the prejudgment interest is entered." Purewick, 666 F. Supp. 3d at 452 (citing Travelers Cas. & Sur. Co, v, Ins. Co. of N. Am., 609 F.3d 143, 175 (3d Cir, 2010)). 42 C. Defendant's Rule 60(b) Motion "Under Rule 60(b), courts may relieve a party from a final order based on one of six grounds." Hussey v. Pennington Sch., No. 24-1862, 2025 WL 1409478, at *2 Cir. May 15, 2025). "Because rulings under Rule 60(b) commonly involve procedural matters unrelated to patent law issues as such, [the Federal Circuit] often defer[s] to the law of the regional circuit in reviewing such rulings." Fiskars, Inc. v. Hunt Mfg. Co., 279 F.3d 1378, 1381 (Fed. Cir. 2002) (collecting cases), Accordingly, the Court applies Third Circuit law to the procedural issues presented by Defendant's Rule 60(b) Motion. The Third Circuit has long recognized that relief under Rule 60(b) is "extraordinary." Moolenaar v. Gov't of Virgin Islands, 822 F.2d 1342, 1346 (3d Cir, 1987) ("The remedy provided by Rule 60(b) is 'extraordinary, and special circumstances must justify granting relief under it.'" (citation omitted)). Against this backdrop, the Court turns to Defendant's Rule 60(b) Motion. Following trial, Defendant requested

ex parte reexamination of Claims 1-23 of the ’631 Patent. D.J. 593-4, Ex, D, The United States Patent and Trademark Office (“USPTO”) granted Defendant’s request for ex parte reexamination. D.L 593-5, Ex. E. On October 1, 2024, UW filed a petition to vacate the order granting Defendant’s request as ultra vires (“Petition to Vacate”). D.E 593-1, Ex. A. Defendant’s Rule 60(b) Motion seeks relief under Rule 60(b)(2) or, in the alternative, Rule 60(b)(5),'° in light of statements made by UW in the Petition to Vacate, See □□ 593 at 10-17. Defendant’s Ruie 60(b) Motion centers around the phrase “strand-distinguishing 0 Fed. R. Civ. P, 60(b)(2), (5) (“On motion and just terms, the court may relieve a party or its legal representative from a final judgment, order, or proceeding for the following reasons: .. .

(2) newly discovered evidence that, with reasonable diligence, could not have been discovered in time to move for a new trial under Rule 59(b); . . . (5) the judgment has been satisfied, released, or discharged; it is based on an earlier judgment that has been reversed or vacated; or applying it prospectively is no longer equitable ....”). 43 nucleotide sequence,” which appears in Claim 1 of the °631 Patent. Plaintiffs oppose and, “for simplicity’s sake” briefed Defendant’s Rule 60(b) Motion together, even though the Petition to Vacate was filed solely by UW as the patent owner. D.I. 595 at 5 1.3, Assuming the Defendant’s Rule 60(b) Motion was timely, the Court finds that Defendant has not shown the type of special circumstances warranting relief. See also Martinez v. Dep't of Transportation, C,A. No. 23-2826, 2024 WL 5456159, at *1 (E.D. Pa. Feb. 23, 2024), aff'd, No. 24-1136, 2025 WL 733429 (3d Cir. Mat. 7, 2025) (considering arguments raised in a motion under Rule 60(b), despite finding that the previous order was interlocutory). As the Third Circuit has explained, “newly discovered evidence” under Rule 60(b)(2) “refers to ‘evidence of facts in existence at the time of trial of which the aggrieved party was excusably ignorant.’” Harrison v. Harrison, No. 22-3361, 2023 WL 7017695, at *2 (3d Cir. Oct. 25, 2023) (quoting Bohus v. Beloff, 950 F.2d 919, 930 (3d Cir. 1991)). For example, in Harrison, the movant relied upon four pieces of “new evidence” under Rule 60(b)(2), including a court decision that issued in January 2022, several months after the district court had entered judgment in July 2021. Jd at *2. The Third Circuit found that this piece of evidence did not exist at the time of the July 2021 judgment and, thus, it could not be considered “newly discovered evidence” under Rule 60(b)(2). See id. at *3; see also United States v. 27.93 Acres of Land, More or Less, Situate in Cumberland Cnty, Com. of Pa. Tract No. 364-07, 924 F.2d 506, 516 Gd Cir. 1991) (“The Planning Commission’s approval and the Township’s enactment of the enterprise district occurred after the trial. Thus, they do not constitute grounds for relief under Rule 60(b)(2) because they were not ‘facts in existence at the time of trial.’”). Conversely, in Jn re Hertz Glob. Holdings, Inc. Sec. Litig., 830 F. App’x 393 Gd Cir. 2020), the Third Circuit addressed Rule 60(b)(2) in the context of a securities fraud action. fd at 396. In Hertz, the “newly discovered evidence” 44 consisted of documents that “purport[ed] to show what the executives knew when making the allegedly fraudulent statements.” Jd. (emphasis added). This “state of mind,” the Third Circuit found, was the “fact[] in existence” prior to the previous dismissal of the plaintiffs’ lawsuit. Jd As between

these cases, the Court finds that the statements cited in Defendant's Rule 60(b) Motion are more like the purported "newly discovered evidence" in Harrison and 27.93 Acres, than the documents in Hertz, as they were not in existence at the time of trial.!! Thus, the Court denies Defendant's Rule 60(b) Motion to the extent it seeks relief under Rule 60(b){2). "Rule 60(b)(5) may not be used to challenge the legal conclusions on which a prior judgment or order rests, but the Rule provides a means by which a party can ask a court to modify 'l Defendant cites one district court decision, from outside of the Third Circuit, where a district court has found that reexamination proceedings constituted "newly discovered evidence" under Rule 60(b)(2). See TDM Am., LLC y. United States, 100 Fed. Cl. 485, 491 (Fed. CI. 2011) (reexamination proceedings were ongoing before the court's decision); but see Power Integrations, tne. v. Fairchild Semiconductor Int'l frc., C.A. No. 08-309-LPS, 2015 WL 167375, at *1 (D, Del. Jan. 13, 2015) (Stark, J.), aff'd in part, vacated and rev'd in part on other grounds, 843 F.3d 1315 (Fed. Cir. 2016) (relief sought under Rule 60(b)(2), aside from being untimely, was not warranted pursuant to Bohus where party did not point to any evidence existing at time of the 2012 trial and had instead relied on post-trial statements made to the USPTO or in expert reports filed in another proceeding). Ultimately, that court denied the motion. See TDM, 100 Fed. Cl. at 492. Additionally, in affirming a district court's denial of relief under Rule 60(b) in Opticurrent, LLC y. Power Integrations, Inc., the Federal Circuit stated that the movant could not demonstrate entitlement to relief under Rule 60(b)(2) because the "disclaimer [was] already established by the claim language as it was construed at trial" and therefore did not constitute "new evidence." No. 2021-1712, 2022 WL 539158, at *7 (Fed. Cir. Feb. 23, 2022); see also id. at *4, *7 (applying Ninth Circuit law to Rule 60(b) issues). In any event, as discussed below, the Court does not find that any statements made within the Petition to Vacate amount to prosecution disclaimer. The Court notes that Defendant's reliance on Opticurrent and its statements regarding the consistency of the patentee's arguments at trial and during reexamination come from its discussion of Rule 60(b)(3), under which Defendant has not moved, rather than Rule 60(b)(2). See id. at *7. Defendant does not identify any cases wherein a court has granted a post-trial motion brought under Rule 60(b)(2) or 60(b)(5) in light of post-trial reexamination statements. Cf Amado, 517 F.3d at 1362-63 (affirming denial of a motion brought under Rule 60(b)(6) predicated on statements made during reexamination); Opficurrent, 2022 WL 539158, at *7 (similar, with respect to motion under Rule 60(b)(2), (3), (5), and (6)). 45 or vacate a judgment or order if 'a significant change either in factual conditions or in law' renders continued enforcement 'detrimental to the public interest.'" Horne v. Flores, 557 U.S. 433, 447 (2009) (quoting Rufo v. Inmates of Suffotk County Jail, 502 U.S. 367, 384 (1992)). "The party seeking relief bears the burden of establishing that changed circumstances warrant relief, but once a party carries this burden, a court abuses its discretion 'when it refuses to modify an injunction or consent decree in light of such changes.'" /d. (cleaned up). The Third Circuit has "held that '[t]he definitional limitation in subsection (5) is significant in that it empowers a court to modify a judgment only if it is 'prospective,' or executory.'" United States y. Alsol Corp., 620 F. App'x 133,

135 (3d Cir. 2015) (quoting Marshall v. Bd. of Educ., 575 F.2d 417, 425 Gd Cir. 1978)). Rule 60(b)(S5) has three clauses. See Fed. R. Civ. P. 60(b)(5) (relief permitted where "the judgment has been satisfied, released, or discharged; it is based on an earlier judgment that has been reversed or vacated; or applying it prospectively is no longer equitable" (emphasis added)). Defendant secks relief under the third clause from "future royalties." D.1. 593 at 17. At the time of Defendant's filing ofits Rule 60(b) Motion, which secks relief from ongoing royalties, the Court had not yet issued any order regarding ongoing royalties. However, going forward, the Court is not persuaded that the statements in the Petition to Vacate wouid render Plaintiffs' prospective recovery of any ongoing royalties "no longer equitable." Rather, the Court finds that the statements identified by Defendant from the Petition to Vacate do not constitute clear and unmistakable disclaimer of subject matter. "The party seeking to invoke prosecution history disclaimer bears the burden of proving the existence of a 'clear and unmistakable' disclaimer that would have been evident to one skilled in the art." PACT XPP Schweiz AG, v. Intel Corp,, No. 1:19-CV-01006-JDW, 2024 WL 3552521, at *4 (D. Del. July 26, 2024), appeal dismissed, No. 2025-1003, 2025 WL 340037 (Fed. Cir. Jan. 46 30, 2025) (quoting Trivascular, Inc, v. Samuels, 812 F.3d 1056, 1063-64 (Fed. Cir, 2016)), "The Federal Circuit has declined to find a prosecution disclaimer '[w]here tie alleged disavowal is ambiguous, or even 'amenable to multiple reasonable interpretations."" /d. (alteration in original) (quoting Massachusetts Inst. of Tech. v. Shire Pharms., Inc., 839 F.3d 1111, 1119 (Fed. Cir. 2016)), Here, viewed in context, the statements cited by Defendant from the Petition to Vacate are largely statements that summarize previous proceedings involving the phrase "strand-distinguishing nucleotide sequences, including those before this Court. See D.I. 593 at 9, 11-13; see also, ¢.g., D.I, 593-1, Ex. A at 2-3 (statements from Dr. Pachter's reports on infringement), 3-5 (district court proceedings), 5-7 (Defendant's assertions), Defendant has not cited to any statements constituting clear and unmistakable disclaimer of claimed subject matter. Thus, the Court finds that Defendant's reliance on PACT, where the patentee had "made assertions about what a [claim limitation] is and what it isn't" in ex parte reexamination proceedings "to exclude a particular interpretation to obtain claim allowance against [a reference]," to be unpersuasive. Id. at *5. Instead, viewing the relevant statements in the "context of the prosecution history as a □ whole," Ecolab, Inc, vy. FMC Corp., 569 F.3d 1335, 1343 (Fed. Cir), amended on reh'g in part, 366 F. App'x 154 (Fed. Cir. 2009), these statements are at most "ambiguous" and do not amount to a clear and unmistakable disclaimer of claimed subject matter. For the foregoing reasons, Defendant's Rule 60(b) Motion (D.I, 592) is denied.

IV. CONCLUSION

For the foregoing reasons, Defendant's Motion for JMOL or New Trial (D.L. 53 0) is denied, Plaintiffs' Enhanced Damages Motion (D.I. 532) is granted-in-part and denied-in-part, and Defendant's Rule 60(b) Motion (D.I. 592) is denied. 47