IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

10X GENOMICS, INC. and PROGNOSYS BIOSCIENCES, INC.,	)	
Plaintiffs,	)	
vs.	)	**Civil Action No. 21-cv-653-MFK**
NANOSTRING TECHNOLOGIES, INC.,	)	
Defendant.	)	

MEMORANDUM OPINION AND ORDER

MATTHEW F. KENNELLY, District Judge:

10x Genomics, Inc. and Prognosys Biosciences, Inc. (collectively, 10x) have sued NanoString Technologies, Inc. for patent infringement. 10x contends that NanoString's GeoMx Digital Spatial Profiler infringes numerous claims of eight of its patents: United States Patent Nos. 10,472,669 (the '669 patent); 10,662,467 (the '467 patent); 10,961,566 (the '566 patent); 10,983,113 (the '113 patent); 10,996,219 (the '219 patent); 11,001,878 (the '878 patent); 11,008,607 (the '607 patent); and 11,293,917 (the '917 patent). In February 2023, the Court issued a claim construction order construing seven disputed claim terms. *See 10x Genomics, Inc. v. NanoString Techs., Inc.*, No. 21-CV-653-MFK, 2023 WL 2265744 (D. Del. Feb. 28, 2023).

10x has now moved for summary judgment on NanoString's defense of invalidity for indefiniteness, and NanoString has filed a cross-motion for summary judgment in its favor on that same indefiniteness defense and also for summary judgment of invalidity for failure to meet the Patent Act's written description requirement. For the reasons

stated below, the Court grants 10x's summary judgment motion regarding NanoString's indefiniteness defense and denies NanoString's summary judgment motion. Both parties have also filed motions to exclude certain testimony of their opponents' expert witnesses. The Court denies these motions as explained below.

Background

The Court assumes familiarity with this case's factual and procedural background, which this Court discussed in its prior written opinion. *See 10x Genomics*, 2023 WL 2265744, at *1–2. The following background is taken from the Court's claim construction order and the parties' briefing.

10x and NanoString are biotechnology companies that offer tools for studying genetic material on a cellular level. 10x's product is called Visium, and NanoString's product that 10x alleges infringes its patents is called GeoMX Digital Spatial Profiler. The asserted patents share a common specification.[1] The specification describes the invention as "relat[ing] to assays of biological molecules, and more particularly to assays for determining spatial distributions of a large number of biological molecules in a solid sample simultaneously." '917 Patent at 1:28–31. In other words, "[t]he invention encompasses assay systems that provide high-resolution spatial maps of biological activity in tissues." *Id.* at 2:26–27. Spatial maps help scientists understand the biology of the tissue. They are therefore commonly used in oncology, immunology, and neurology to identify genes and observe changes in gene expression.

On February 28, 2023, the Court issued an order construing seven claim terms of

[1] Because the asserted patents share a common specification, the Court follows the parties' suit in citing only to the '917 patent.

the asserted patents. During claim construction, NanoString contended that several of the claim terms should be construed to include the limitations "on the tissue sample" and "in a spatial pattern." *See 10x Genomics*, 2023 WL 2265744, at *3–6. The Court declined to adopt NanoString's proposed constructions, holding instead that the disputed claim terms did not require construction beyond their plain and ordinary meaning. *See id.*

NanoString has now moved for partial summary judgment, contending that without a limitation regarding spatial patterning, the claims fail the written description requirement. NanoString also moves to exclude the opinion of 10x's validity expert, Dr. Rahul Satija. The parties have filed cross-motions for summary judgment regarding NanoString's defense that claim 1 of the '917 patent is invalid for indefiniteness. Lastly, the parties have both filed motions to exclude certain opinions of their opponent's damages experts.

Discussion

Summary judgment is appropriate if the moving party "shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). Because the parties have filed cross-motions for summary judgment, the Court "view[s] the facts contained in each motion in the light most favorable to the nonmoving party." *Columbia Gas Transmission, LLC v. 1.01 Acres*, 768 F.3d 300, 309 (3d Cir. 2014).

A. Indefiniteness

Section 112 requires "that a patent specification 'conclude with one or more claims *particularly pointing out and distinctly claiming* the subject matter which the

applicant regards as the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014) (alteration accepted) (quoting 35 U.S.C. § 112, ¶ 2 (2006)).[2] This provision "require[s] that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Id.* at 910. NanoString contends that claim 1 of the '917 patent is indefinite because it recites "both a system and the method for using that system." Def.'s Combined Opening and Resp. Br. at 26 (quoting *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005)). 10x contends that claim 1 "is drafted entirely" as a "system" claim. Pls.' Opening Br. at 2. NanoString does not dispute 10x's contention that this issue "is a question of law." *MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1313 (Fed. Cir. 2017).

"[M]ethod claims require the performance of steps; claims that describe physical components of a whole are system, or apparatus, claims." *Jazz Pharms., Inc. v. Avadel CNS Pharms., LLC*, 60 F.4th 1373, 1379 (Fed. Cir. 2023). The Federal Circuit "ha[s] held that a single claim covering both an apparatus and a method of use of that apparatus fails to meet the requirements of § 112 because it is unclear whether infringement occurs when one creates an infringing system, or whether infringement occurs when the user actually uses the system in an infringing manner." *UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816, 826 (Fed. Cir. 2016) (alterations accepted) (internal quotation marks omitted); *see also In re Katz Interactive Call*

[2] "Paragraph 2 of 35 U.S.C. § 112 was replaced with newly designated § 112(b) . . . on September 16, 2012." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014). "Because the applications resulting in the patents at issue in this case were filed before that date, [the Court] will refer to the [prior] version of § 112." *Id.*

Processing Pat. Litig., 639 F.3d 1303, 1318 (Fed. Cir. 2011) ("Katz's claims . . . create confusion as to when direct infringement occurs because they are directed both to systems and to actions performed by 'individual callers.'"). But "apparatus claims are not necessarily indefinite for using functional language." *UltimatePointer*, 816 F.3d at 826 (internal quotation marks omitted). A claim is not indefinite if it "is clearly limited to an apparatus possessing the recited structure and *capable* of performing the recited functions." *Id.* (internal quotation marks omitted); *see also Jazz Pharms.*, 60 F.4th at 1380 ("[T]he inclusion of active verbs and other functional language describing the capabilities of a claimed system does not transform a system claim into a method claim.").

Claim 1 of the '917 patent recites:

> A system for analyzing a target biological molecule of a tissue sample . . . , the system comprising:
> . . .
> a processing circuit arrangement connected to the imager and comprising software;
> . . .
> wherein the software comprises instructions configured to cause the processing circuit arrangement to:
>
> display an image of the tissue sample obtained by the imager on the visual display and obtain information about a region of interest in the tissue sample based on the image of the tissue sample, wherein the region of interest is less than the entire tissue sample; and
>
> control the reagent delivery system to remove a portion of the tissue sample from the region of interest and deliver the removed portion of the tissue sample through the [sic] at least one reagent channel to a location external to the tissue sample,
>
> wherein the removed portion of the tissue sample comprises an oligonucleotide of one of the plurality of probes in the tissue sample; and
>
> wherein the location external to the tissue sample is a well in a substrate, and wherein the well is associated with the region of interest.

'917 Patent at 32:65–33:32.

NanoString contends that the phrase "wherein the removed portion of the tissue sample comprises an oligonucleotide" is a "method step result that is untethered to any structural capability." Def.'s Combined Opening and Resp. Br. at 27 (quoting '917 Patent at 32:27–29). The Court disagrees. The claim language indicates that this is not a separate step, but rather a clause describing an example of the kind of tissue sample that the software is configured to remove. In other words, the clause NanoString points to "does not appear in isolation, but rather, is specifically tied to structure." *MasterMine*, 874 F.3d at 1316.

NanoString relies on *IPXL Holdings* and *Katz* for the proposition that claim 1 is indefinite, but both cases are inapposite. "[T]he claims in *IPXL Holdings* ('the user uses the input means') and *Katz* ('said individual callers digitally enter data') focus[ed] on specific actions performed by the user." *MasterMine*, 874 F.3d at 1316. The Federal Circuit has distinguished *IPXL Holdings* and *Katz*, where, as here, "the claims [ ] do not claim activities performed by the user." *Id.* There is therefore no uncertainty regarding when infringement occurs. "Because the claims merely use permissible functional language to describe the capabilities of the claimed system, it is clear that infringement occurs when one makes, uses, offers to sell, or sells the claimed system." *Id.*

The prosecution history supports the Court's conclusion. During prosecution, the examiner initially rejected the claims for indefiniteness. In response, the patent applicant noted that an "[a]greement was reached during [an] interview" with the examiner that "the identified features are regarded as intended use, not as features that affect the scope of the claims." Dkt. no. 227-7 at 8. "To further emphasize this

interpretation," the applicant amended the claim "to separate the features identified" by the examiner "from the main body" of the claim. *Id.*

NanoString contends that the prosecution history supports its position because the applicant subsequently used the functional elements to distinguish prior art. This contention lacks merit. First, the applicant's statements that NanoString points to are not related to the "wherein the removed portion of the tissue sample comprises an oligonucleotide" clause that it contends makes the claim indefinite. Rather, the applicant pointed to the "control the reagent delivery system to remove a portion of the tissue sample" element of the claim, explaining that the prior art described "cell dispensing," which "does not involve *removing a portion of a cell*." *Id.* at 11. Second, the applicant expressly stated that the prior art was distinguishable because it did "not include *software instructions* 'configured to cause the processing circuit arrangement to . . . control the reagent delivery system to remove a portion of the tissue sample from the region of interest' as required by" the claim. *Id.* (emphasis added) (alteration in original). This is consistent with the Court's holding that the claim is entirely a system claim that is capable of performing certain functions.

In short, claim 1 of the '917 patent "inform[s] those skilled in the art about the scope of the invention with reasonable certainty." *MasterMine*, 874 F.3d at 1316. The Court therefore grants 10x's summary judgment motion that the claim is not indefinite as a matter of law.

10x also moved for summary judgment of no indefiniteness for five other terms contained in the asserted patents. *See* Pls.' Opening Br. at 5–7. NanoString responded only in a footnote in which it asserted that 10x's briefing "is conclusory and falls far short

of establishing that there are no genuine issues to warrant summary judgment of no indefiniteness." Def.'s Combined Opening and Resp. Br. at 26 n.8. NanoString's perfunctory response to 10x's motion amounts to forfeiture. *See John Wyeth & Bro. Ltd. v. CIGNA Int'l Corp.*, 119 F.3d 1070, 1076 n.6 (3d Cir. 1997) ("[A]rguments raised in passing (such as, in a footnote), but not squarely argued, are considered waived."); *Brown v. Johnson*, 116 F. App'x 342, 346 (3d Cir. 2004) ("[I]t is a well-settled rule that a party opposing a summary judgment motion must inform the trial judge of the reasons, legal or factual, why summary judgment should not be entered." (quoting *Liberles v. County of Cook*, 709 F.2d 1122, 1126 (7th Cir.1983))). Because 10x has sufficiently explained why summary judgment of no indefiniteness is proper for each term given the undisputed facts, the Court grants 10x's motion regarding these terms as well.

B. Written description

Section 112 also "contains a written description requirement." *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). "To satisfy the written description requirement, a patent's specification must 'reasonably convey to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.'" *Novartis Pharms. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1016 (Fed. Cir. 2022) (alteration accepted) (quoting *Ariad*, 598 F.3d at 1351), *cert. denied sub nom. Novartis Pharms. Corp. v. HEC Pharm Co.*, 143 S. Ct. 1748 (2023). "Whether a claim satisfies the written description requirement is a question of fact," *id.* (internal quotation marks omitted), and the "analysis is highly dependent on the facts of each case." *Biogen Int'l GMBH v. Mylan Pharms. Inc.*, 18 F.4th 1333, 1342 (Fed. Cir. 2021), *cert. denied*, 143 S. Ct. 112 (2022). "Inadequate written description must be

shown by clear and convincing evidence." *Novartis*, 38 F.4th at 1016.

NanoString contends that the asserted patents fail to satisfy the written description requirement because "the specification emphasize[s] the criticality of spatial patterning and teaches that this is essential, [but] nothing in the claims as construed refers to or imposes such a requirement." Def.'s Combined Opening and Resp. Br. at 4. NanoString asserts that "spatial patterning involves application of reagents to the sample as an input to the process so as to encode spatial location information within the sample." *Id.* at 1. NanoString's contention is, in essence, an attempt to rehash arguments that the Court rejected during claim construction.

During claim construction, NanoString proposed construing most of the claim terms to require encoding location information on the tissue in accordance with a known spatial pattern. The Court rejected NanoString's proposed constructions, reasoning that they were "too narrow" and would improperly "read certain embodiments out of the patent," including "other methods and technologies for delivering probes with *and without* a pattern." *10x Genomics*, 2023 WL 2265744, at *3. The Court explained that the specification describes other options to encode or retain location information, including removing reagents in a targeted way to preserve location information. *See* '917 Patent at 16:41-45 ("[I]t may be preferred to segment or sequester certain areas of the biological samples into one or more assay areas for different reagent distributions and/or biological target determination. The assay areas may be physically separated using barriers or channels."), 24:38–44 ("For several applications, it may be preferred to arrange the substrates into segments of one or more measurement areas for reagent distribution and agent determination. These regions may be physically separated using

barriers or channels."). The Court further noted that the claim term "generating" does not necessarily occur "on the tissue" because several embodiments described in the specification encoded location information off tissue. *Id.* at *6 ("The patents teach that 'generating' may be accomplished by adding oligonucleotide 'tags' to probes that have been transformed by cleavage, by PCR amplification (which occurs off the tissue), or with sequencing adapters.").

NanoString contends that the Court's statements regarding alternative embodiments described by the specification "were incorrect" and that, "with the benefit of a complete record, the Court should take a fresh look at the disclosure." Def.'s Reply Br. at 1–2. But the summary judgment record does not persuade the Court that its statements in its claim construction order were incorrect. Rather, 10x's expert, Dr. Rahul Satija,[3] opines that one skilled in the art would understand that the specification describes "techniques, technologies, and methods to associate spatial identity with target molecules without performing targeted delivery in a spatial pattern of probes or oligonucleotides to the tissue sample." Dkt. no. 241-2 ¶ 82.

For example, referring to the specification at 16:41–45 and 24:38–44, Dr. Satija explains that "the specification describes the use of 'barriers or channels' to define regions for performing spatial assays," which "enables the preservation of spatial (segment) information when probe reagents are delivered indiscriminately." *Id.* ¶ 84. He also opines that a person skilled in the art would understand from the specification "a way to add tags after collection from segmented areas to preserve and track location information" through "sample multiplexing, which is a common step in a [next-

[3] NanoString's motion to exclude Dr. Satija's opinions is addressed below.

generation sequencing] workflow." *Id.* ¶ 94; *see also* '917 Patent at 19:8–38 ("In one particularly preferred aspect, the resulting coding tags according to the assay system are substrates for high-throughput, next-generation sequencing, and highly parallel next-generation sequencing methods are used to confirm the sequence of the coding tags . . . ."). He further opines that "numerous disclosures throughout the patent [ ] teach encoding spatial location via tags." *Id.* ¶ 92 (citing '917 Patent at 10:11–33, 13:1–14, 14:6–14, 14:61–15:3, 19:16–38, 23:53–63, 25:52–26:11).

NanoString contests Dr. Satija's interpretation of the specification. It contends that the specification does not sufficiently disclose these alternative embodiments and that Dr. Satija is improperly "speculat[ing] as to modifications that the inventor might have envisioned." Def.'s Combined Opening and Resp. Br. at 9 (quoting *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997)); *see also Rivera v. Int'l Trade Comm'n*, 857 F.3d 1315, 1322 (Fed. Cir. 2017) ("The knowledge of ordinary artisans may be used to inform what is actually in the specification, but not to teach limitations that are not in the specification, even if those limitations would be rendered obvious by the disclosure in the specification.") (citation omitted). In *Lockwood* and *Rivera*, however, the Federal Circuit held that summary judgment was not precluded where it was undisputed that certain claimed features were not disclosed, but an expert opined that the features were obvious from the disclosures. The Federal Circuit has distinguished those cases where, as here, "the specification at least mentions" the alternative embodiments. *Centrak, Inc. v. Sonitor Techs., Inc.*, 915 F.3d 1360, 1367 (Fed. Cir. 2019). Rather than attempting to "supplement the teaching in the specification" using his "background knowledge," *Rivera*, 857 F.3d at 1322, Dr. Satija

opines "that a skilled artisan would recognize *from reading the specification*, including all disclosures, that [the inventor] possessed the full scope of the claimed inventions as of April 5, 2011." Dkt. no. 241-2 ¶ 78 (emphasis added).

As explained above, the specification contains discussions of several techniques to encode and/or retain spatial information. Dr. Satija's opinion that a person skilled in the art would understand these discussions to disclose the full scope of the claims "at least raises a genuine issue of material fact." *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 683 (Fed. Cir. 2015). As in *Centrak*, the question of "the level of detail" the specification "must contain . . . to adequately convey to a skilled artisan that the inventor[] possessed" these alternative embodiments is a disputed factual issue. *Centrak*, 915 F.3d at 1367. Thus, NanoString is not entitled to summary judgment on invalidity for lack of written description.

NanoString's contention that "spatial patterning is central to the 'invention,'" Def.'s Combined Opening and Resp. Br. at 2, does not alter the Court's conclusion. First, NanoString emphasizes the Court's statement in its claim construction order that the "claims and the shared specification thus indicate that spatial patterning must occur somewhere in the process and with some form of reagent." Def.'s Combined Opening and Resp. Br. at 1 (emphasis omitted) (quoting *10x Genomics*, 2023 WL 2265744, at *4). But 10x contends that "spatial patterning" is broader than NanoString asserts, including not just delivery of reagents according to a spatial pattern, but also "methods, technologies, and techniques for spatial patterning through targeted removal and encoding off tissue." Pls.' Combined Resp. and Reply Br. at 4. Thus, the Court's prior statement that spatial patterning is required in some form does not necessarily suggest

a mismatch between the claims and the specification as NanoString contends. NanoString also does not address the Court's other statement that "[w]hat is central to the patented system is its ability to ensure discrete delivery or retrieval," which, "[c]ontrary to NanoString's contentions," is "not necessarily the same as spatial patterning." *10x Genomics*, 2023 WL 2265744, at *6.

Moreover, although NanoString contends that its narrower interpretation of spatial patterning is described in the specification "[o]ver and over," Def.'s Combined Opening and Resp. Br. at 2, "a specification's focus on one particular embodiment or purpose cannot limit the described invention where that specification expressly contemplates other embodiments or purposes." *Centrak*, 915 F.3d at 1366 (internal quotation marks omitted); *see also Cooper Cameron Corp. v. Kvaerner Oilfield Prods., Inc.*, 291 F.3d 1317, 1322 (Fed. Cir. 2002) ("Although the specification also describes an arrangement that may be claimed in another way . . . , and explains why the invention functions well when arranged accordingly, the specification is not limited to that particular description. An inventor is entitled to claim his invention in more than one way."). The fact that the specification described embodiments where spatial patterning occurred via targeted delivery "does not necessarily mean that the only described invention is" this form of spatial patterning. *Scriptpro, LLC v. Innovation Assocs., Inc.*, 762 F.3d 1355, 1359 (Fed. Cir. 2014) ("A specification can adequately communicate to a skilled artisan that the patentee invented not just the combination of all identified features but combinations of only some of those features (subcombinations)—which may achieve stated purposes even without omitted features.").

Lastly, in its reply brief, NanoString relies heavily on *Lipocine Inc. v. Clarus*

Therapeutics, Inc., 541 F. Supp. 3d 435 (D. Del. 2021), for the proposition that summary judgment is warranted. But *Lipocine* is inapposite. In that case, the patent claims "cover[ed] any oral method using almost any formulation administered within [a] broad range of doses, followed by titration if needed, as long as the method works." *Id.* at 462. The court explained that this "kind of functional claiming runs afoul of the written description requirement." *Id.* In this case, by contrast, NanoString does not contend that the patent claims describe the invention "in purely functional terms." *Id.* at 446 ("A description of an invention in purely functional terms has frequently been found inadequate to satisfy the written description requirement."); *see also Ariad*, 598 F.3d at 1349 (noting that the written description "problem is especially acute" where a "functional claim [ ] simply claim[s] a desired result . . . without describing species that achieve that result").

C. Expert testimony

Both parties have also filed *Daubert* motions to exclude certain testimony of their opponents' expert witnesses. NanoString has moved to exclude the written description opinions of 10x's validity expert, Dr. Satija, and the reasonable royalty opinions of 10x's damages expert, Ms. Julie Davis. 10x has moved to exclude the reasonable royalty opinions of NanoString's damages expert, Mr. Michael Lasinski. The Court addresses each motion in turn.

To be admissible under *Daubert*, an expert's testimony must be helpful to the trier of fact and must "rest[] on a reliable foundation and [be] relevant to the task at hand." *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1992). Under Federal Rule of Evidence 702, expert testimony must meet three requirements to be admissible:

(1) the witness must be qualified to give such testimony; (2) the testimony must be reliable; and (3) the testimony must be relevant and assist the trier of fact. *See* Fed. R. Evid. 702; *Schneider ex rel. Est. of Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003) ("We have explained that Rule 702 embodies a trilogy of restrictions on expert testimony: qualification, reliability and fit.").

1. Dr. Rahul Satija

First, NanoString moves to exclude Dr. Satija's opinion because his "written description theory [ ] substitutes speculation and alleged background knowledge for actual disclosure." Def.'s Reply Br. at 12. As explained above, NanoString's characterization of Dr. Satija's opinion is incorrect. Dr. Satija is not "teach[ing] limitations that are not in the specification" but rather is using his knowledge as an ordinary artisan "to inform what is actually in the specification." *Rivera*, 857 F.3d at 1322. NanoString also asserts that Dr. Satija's opinion "reflect[s] mere theories about what 'could' potentially be accomplished," without citing to the specification. Def.'s Combined Opening and Resp. Br. at 15. But as described above, Dr. Satija does cite to the specification in opining that it fully discloses the claimed subject matter.

Next, NanoString contends that Dr. Satija's opinion should be excluded because his opinion applied a priority date of April 2011 even though, as NanoString asserts, 10x had previously argued that the proper priority date is April 2010. This is not a basis to exclude Dr. Satija's opinion. First, 10x has previously stated during discovery that the priority date for the asserted patent claims is April 5, 2011. *See* Dkt. no. 241-4 at 18–23; dkt. no. 241-5 at 8. And this priority date was not contested by NanoString's

expert.[4] In any event, the proper priority date can be argued at trial. *See Ajinomoto Co. v. Int'l Trade Comm'n*, 597 F.3d 1267, 1277 (Fed. Cir. 2010) ("A patentee may [ ] argue in the alternative for different priority dates at trial."). Thus, even if Dr. Satija relied on the incorrect priority date as NanoString argues, it would not be a basis to exclude his opinion. NanoString does not cite any authority to the contrary.

Lastly, NanoString contends that Dr. Satija's opinion should be excluded because he relied "on confidential invention disclosure forms." Def.'s Combined Opening and Resp. Br. at 17. NanoString points to a paragraph of Dr. Satija's opinion in which he states that his "understanding is consistent with that of one of [the inventor]'s Invention Disclosures" because the disclosure "confirm[s] he was in possession of methods for encoding location off-tissue using [next-generation sequencing] indexing techniques." Dkt. no. 236-2 ¶ 99. But 10x contends that NanoString's expert first relied on the invention disclosures and that Dr. Satija's opinion will therefore rebut the testimony that NanoString intends to offer at trial. NanoString does not respond to this contention. Nor does NanoString cite any authority for the proposition that an expert's reliance on invention disclosures is grounds for exclusion.

In sum, the Court declines NanoString's motion to exclude Dr. Satija's expert opinions.

2. Ms. Julie Davis

NanoString also moves to exclude Ms. Davis's reasonable royalty rate opinions. "The reasonable royalty theory of damages . . . seeks to compensate the patentee not

[4] NanoString instead "contends that the patents lack written description entirely and are not entitled to any priority." Def.'s Reply Br. at 13 n.5.

for lost sales caused by the infringement, but for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing." *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1334 (Fed. Cir. 2015). The "common approach" to calculate a reasonable royalty is "called the hypothetical negotiation" approach, which "attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began." *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009). Another approach is "the analytical method," which "focuses on the infringer's projections of profit for the infringing product." *Id.* NanoString seeks to exclude Ms. Davis's opinions regarding both approaches.

First, Ms. Davis's hypothetical negotiation opinion relies on 10x's corporate acquisition of ReadCoor, a company developing *in situ* spatial sequencing technology. In 2016, ReadCoor entered into a license with Harvard for exclusive and non-exclusive patent rights at a rate ranging from two to four percent of sales and services income. In 2020, 10x acquired ReadCoor for $407.4 million and became the successor in interest to the Harvard / ReadCoor license. As part of the acquisition, PricewaterhouseCoopers LLP (PwC) prepared a valuation of ReadCoor's intangible assets. PwC's report valued ReadCoor's "*In situ* in-process research & development technology" (IPR&D) at $393 million. Dkt. no. 236-8 at 5–6. PwC explained that "[t]he IPR&D represents the collection of in situ instrumentation, chemistry, and associated support services that are being developed using ReadCoor's IP." *Id.* at 31. Ms. Davis opines that "since 10x recognized that the ReadCoor IPR&D had no 'alternative future use' or value to the company, the entire amount of the purchase price allocated to the ReadCoor IPR&D

can be attributed to the ReadCoor portfolio of patents, akin to a lump sum paid upfront for the exclusive right to use the patents, including the Harvard patents." Dkt. no. 236-7 at 56. Based on the estimated fair value and the discounted future revenues of the IPR&D, Ms. Davis calculates an "implied royalty rate" of 30%. *Id.* at 57. Ms. Davis then opines that "10x paid an implied royalty rate of no less than 15% specific to the comparable Harvard patent rights" based on "the technological importance of the patent families comparable to the patents-in-suit, the percentage of the comparable patents in the entire patent portfolio in terms of the number of issued U.S. patents, and [her] general understanding that patents subject to a non-exclusive license are accorded less value than patents in an exclusive license." *Id.* at 60.

NanoString moves to exclude this opinion on various grounds. First, NanoString contends that the "ReadCoor acquisition is an unreliable starting point for determining a royalty rate for the patents-in-suit because the ReadCoor acquisition was a complex corporate acquisition that involved far more than a patent license." Def.'s Combined Opening and Resp. Br. at 21. But NanoString does not cite any authority for this proposition. 10x contends that the acquisition is relevant to the reasonable royalty rate because "[t]he primary rationale for the Transaction was for the acquisition of ReadCoor's foundational patents that [underlie] the IPR&D and protective rights they provided to 10x's intellectual property." Pls.' Combined Resp. and Reply Br. at 29 (alterations in original) (quoting Dkt. no. 236-7 at 55).

The Court agrees with 10x. "The amount paid to acquire a company with desired patents, and the amount of the acquisition amount allotted to a particular patent is relevant to the establishment of a reasonable royalty." *Fresenius Med. Care Holding*

Inc. v. Baxter Int'l, Inc., 224 F.R.D. 644, 653 (N.D. Cal. 2004); *see also Integra Lifesciences I, Ltd. v. Merck KGaA*, 331 F.3d 860, 871 (Fed. Cir. 2003) (comparing the jury's reasonable royalty award with the purchase price of a corporate acquisition that included "all of its products, patents and know-how"), *vacated on other grounds*, 545 U.S. 193 (2005); *Limelight Networks, Inc. v. XO Commc'ns, LLC*, No. 3:15-CV-720-JAG, 2018 WL 678245, at *6 (E.D. Va. Feb. 2, 2018) ("To determine a reasonable royalty rate for a patented technology, a court may look to prior acquisition agreements and patent license agreements from cases involving sufficiently comparable technology."). Thus, the Court concludes that Ms. Davis's reliance on the ReadCoor acquisition is not a basis to exclude her reasonable royalty opinion.

Next, NanoString contends that Ms. Davis improperly relied on the full IPR&D amount even though it included more than just patents. But Ms. Davis explains that she used the entire amount in her calculation because "the IPR&D 'did not have alternative future use and therefore was recognized as an expense.'" Dkt. no. 236-7 at 55–56. Her opinion notes that "[a]t the time of the acquisition, 10x 'believed that the instrument ReadCoor was developing . . . did not function as intended.'" *Id.* at 55. 10x therefore "d[id] not intend to further develop the protype product," but rather was "primarily focused on using ReadCoor's *In Situ* technology to incorporate into its *In Situ* product portfolio." *Id.* NanoString's objection to Ms. Davis's allocation of IPR&D to patents is a matter of weight that can be explored on cross-examination; it is not a basis to exclude her opinion. *See ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012) (holding that the parties' dispute over whether a license fee that covered both "patents *and* software services" was properly attributed to the asserted

patents was a "factual issue[] best addressed by cross examination and not by exclusion").

NanoString also argues that Ms. Davis's opinion should be excluded because she "ignore[d]" the royalty rates set by the underlying Harvard / ReadCoor license and the license between Prognosys and 10x, which NanoString contends are more comparable licenses. Def.'s Combined Opening and Resp. Br. at 22. "Assessing the comparability of licenses requires a consideration of whether the license at issue involves comparable technology, is economically comparable, and arises under comparable circumstances as the hypothetical negotiation." *Bio-Rad Lab'ys, Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1372–73 (Fed. Cir. 2020). Contrary to NanoString's assertion, Ms. Davis does not ignore either license. Rather, she considers both licenses but opines that the ReadCoor acquisition provides a better estimate of a reasonable royalty.[5] *See* Dkt. no. 236-7 at 51 ("Though [the Prognosys] license would be considered technologically comparable to the hypothetical license since it covers the patents-in-suit, it would not be considered economically comparable."), 61 ("ReadCoor was considered a competitor of 10x. In contrast, the ReadCoor/Harvard agreement, of which 10x became successor in interest, was between an academic institution licensing a commercial partner (ReadCoor).") (footnote omitted). "[T]he degree of comparability of the license agreements is a factual issue best addressed by cross examination and

[5] Ms. Davis's opinion is therefore distinguishable from the expert testimony rejected in the case NanoString cites. *See* Def.'s Combined Opening and Resp. Br. at 23 (citing *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870 (Fed. Cir. 2010)). In *ResQNet*, the expert "used licenses with no relationship to the claimed invention." *ResQNet*, 594 F.3d at 870. As explained above, the ReadCoor acquisition is related to a reasonable royalty for the asserted patents.

not by exclusion." *Bio-Rad*, 967 F.3d at 1374 (alteration accepted) (internal quotation marks omitted); *see also Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1227 (Fed. Cir. 2014) ("[T]he fact that a license is not perfectly analogous generally goes to the weight of the evidence, not its admissibility.").

Lastly, NanoString contends that Ms. Davis uses unreliable methodology to halve the implied royalty rate, relying on *Guardant Health, Inc. v. Foundation Medicine, Inc.*, No. CV 17-1616-LPS-CJB, 2020 WL 2461551, at *18 (D. Del. May 7, 2020), *report and recommendation adopted*, No. CV 17-1616-LPS-CJB, 2020 WL 5994155 (D. Del. Oct. 9, 2020). In *Guardant Health*, the court excluded an expert's opinion that a 50% apportionment rate was appropriate where the opinion was merely a "conservative" estimate based solely on the fact that "the patents were 'foundational' to the accused products." *Id.* In this case, by contrast, Ms. Davis opined that the comparable patents accounted for forty-eight percent of the patents in the Harvard / ReadCoor agreement and were "more technologically important than the other patent families in the exclusive license category, and significantly more important than the patent families in the non-exclusive category." Dkt. no. 236-7 at 60. Thus, contrary to NanoString's assertion, Ms. Davis's methodology consists of more than just dividing the rate in half based on a vague assertion that the patents are "foundational" or "raw patent counting." Def.'s Combined Opening and Resp. Br. at 23–24. *Guardant Health* is therefore inapposite.

In sum, the Court denies NanoString's motion to exclude Ms. Davis's reasonable royalty opinion applying the hypothetical negotiation approach.

NanoString also moves to exclude Ms. Davis's opinion applying the analytical approach. As noted above, "[t]he analytical method[] focuses on the infringer's

projections of profit for the infringing product." *Lucent Techs.*, 580 F.3d at 1324. This method "calculat[es] damages based on the infringer's own internal profit projections for the infringing item at the time the infringement began, and then apportion[s] the projected profits between the patent owner and the infringer." *Id.* (quoting John Skenyon et al., *Patent Damages Law & Practice* § 3:4, at 3–9 to 3–10 (2008)).

NanoString contends that Ms. Davis's opinion should be excluded because her calculation uses gross profit margins, rather than net profits. NanoString cites *TWM Manufacturing Co. v. Dura Corp.*, 789 F.2d 895, 899 (Fed. Cir.1986), for the proposition that net profits is specifically required. In *TWM Manufacturing*, the Federal Circuit described the "analytical approach" as "subtract[ing] the infringer's usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices." *Id.* But the Federal Circuit did not hold that using net profits, as opposed to other profit figures, was required. As stated above, the Federal Circuit in *Lucent* summarized the approach without saying that particular type of profit margin was required. Ms. Davis explained in her reply report that she chose to use gross profit margins because "the research and development expenses for both nCounter and GeoMx had already been incurred by the date of the hypothetical negotiation." Dkt. no. 227-24 at 12. The Court concludes that Ms. Davis's use of gross profit margins does not render her methodology unreliable and is not a basis to exclude her opinion. *See Eko Brands, LLC v. Adrian Rivera Maynez Enters., Inc.*, No. C15-522-JPD, 2018 WL 10687383, at *2, 5 (W.D. Wash. Mar. 28, 2018) (holding that an expert's analytical method opinion using gross profit margins was "based on sufficient facts and evidence to be presented to the jury").

Lastly, NanoString argues that Ms. Davis's opinion "fails to account for the

substantial differences between the nCounter and GeoMx platforms and differences in their lifecycles." Def.'s Combined Opening and Resp. Br. at 26. But NanoString does not cite any authority for the proposition that this is a required step of the analytical approach nor explain what the purported "differences" are. As Ms. Davis explains, differences between the products may be attributable to the fact that the GeoMx product "is enabled by the patents-in-suit," "as compared to nCounter, which does not rely on this [ ] technology." Dkt. no. 227-24 at 11. The only case NanoString cites, *Wonderland Switzerland AG v. Evenflo Co.,* 564 F. Supp. 3d 320, 341–42 (D. Del. 2021), relates to apportioning an expert's reasonable royalty rate calculated using the analytical approach to account for non-patented features. Because NanoString does not make an apportionment argument, this case is not relevant.[6]

3. Mr. Michael Lasinski

10x moves to exclude Mr. Lasinski's reasonable royalty opinions. Mr. Lasinski calculates a reasonable royalty based on two licenses he opines are comparable to the asserted patents: the MGH license and the Prognosys license. 10x contends that his opinions on both licenses should be excluded.

First, 10x argues that the MGH license is not sufficiently comparable. "In determining a reasonable royalty, parties frequently rely on comparable license agreements." *Bio-Rad*, 967 F.3d at 1372 (Fed. Cir. 2020). "The party proffering a license bears the burden of establishing it is sufficiently comparable to support a proposed damages award." *Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 915

[6] Although *Wonderland Switzerland* does discuss technologically comparable licenses, it does so in the context of the hypothetical negotiation approach. *See Wonderland Switzerland*, 564 F. Supp. 3d at 341.

(Fed. Cir. 2022). As previously explained, "[a]ssessing the comparability of licenses requires a consideration of whether the license at issue involves comparable technology, is economically comparable, and arises under comparable circumstances as the hypothetical negotiation." *Bio-Rad*, 967 F.3d at 1372–73.

In his opinion, Mr. Lasinski relies on the technological comparability opinion of another NanoString expert, Dr. Edwards. Contrary to 10x's assertion, this is not improper. *See Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1303 (Fed. Cir. 2015) ("Experts routinely rely upon other experts hired by the party they represent for expertise outside their field.") (internal quotation marks omitted). 10x further contends that Dr. Edwards' opinion is impermissibly based on hearsay because he explained during his deposition that he learned from someone at NanoString that its GeoMx product practices the MGH patents. But "Rule 703 permits experts to rely on hearsay so long as it is of the kind normally employed by experts in the field." *Schuchardt v. President of United States*, 802 F. App'x 69, 75 (3d Cir. 2020). 10x has not argued that the statements upon which Dr. Edwards relies are not reasonably relied upon by experts in his field. In any event, Dr. Edwards determined using his own technical expertise that the technology of the MGH patents is comparable to the asserted patents. *See* Dkt. no. 236-20 ¶ 140. 10x does not cite any authority for the proposition that NanoString must have practiced the MGH patents for them to be technologically comparable.

10x contends that the MGH patents are not comparable because they are not directed to spatial detection, but rather "to one component used in one step of the GeoMx workflow." Pls.' Opening Br. at 10. Dr. Edwards disputes this assertion,

contending that numerous features and techniques of the MGH patents overlap with the asserted patents. NanoString has thus made a sufficient "showing of 'baseline comparability,'" and the "degree of comparability is a factual issue best addressed through cross examination." *Bio-Rad*, 967 F.3d at 1374; *see also ActiveVideo*, 694 F.3d at 1333 ("The degree of comparability of the Gemstar and Grande license agreements . . . are factual issues best addressed by cross examination and not by exclusion.").[7]

Next, 10x contends that Mr. Lasinski's calculation of a reasonable royalty rate based on the Prognosys license should be excluded because his valuation methodology is unreliable. In exchange for a license to several patents, including the asserted patents, 10x agreed to pay Prognosys a lump sum amount, a running royalty based on net sales, and an amount based on stock shares. For purposes of the hypothetical negotiation, Mr. Lasinski converted these different components into a single running royalty. In doing so, he used projections of sales of 10x's Visium products. 10x contends that Mr. Lasinski's use of those projections, "while ignoring other projections and actual sales, render his methodology unreliable and unhelpful to a jury." Pls.' Opening Br. at 15.

The Court disagrees. Even if using different projections or actual sales, as 10x suggests, would result in a more accurate calculation, that goes to the weight to be given to Mr. Lansinski's calculation, not its admissibility. *See i4i Ltd. P'ship v. Microsoft*

[7] In a footnote, 10x contends that "[t]he MGH license is also not economically comparable to the hypothetical license because it is between a collaborator and promoter and was entered into in a much different context than the hypothetical negotiation between competitors 10x and NanoString." Pls.' Opening Br. at 10 n.6. 10x has forfeited this argument by not developing it beyond this single sentence. *See John Wyeth*, 119 F.3d at 1076 n.6 ("[A]rguments raised in passing (such as, in a footnote), but not squarely argued, are considered waived.").

Corp., 598 F.3d 831, 856 (Fed. Cir. 2010) ("While the data were certainly imperfect, and more (or different) data might have resulted in a 'better' or more 'accurate' estimate in the absolute sense, it is not the district court's role under *Daubert* to evaluate the correctness of facts underlying an expert's testimony."), *aff'd*, 564 U.S. 91 (2011). 10x contends that Mr. Lasinski's opinion improperly "cherry-pick[s] a single projection and ignore[s] (without explanation) other, more accurate projections." Pls.' Combined Resp. and Reply Br. at 35. But 10x does not respond to NanoString's explanation that Mr. Lasinski simply used the projections 10x provided during discovery and that the "purportedly 'more' contemporaneous projection" 10x points to in its brief was not identified during discovery. Defs.' Combined Opening and Resp. Br. at 30 & n.10. 10x's objections to the particular projections Mr. Lasinski used are therefore not a basis to exclude Mr. Lasinski's opinion.

In sum, the Court denies 10x's motion to exclude Mr. Lasinski's reasonable royalty opinions.

Conclusion

For the foregoing reasons, the Court grants the plaintiffs' motion for summary judgment [dkt. no. 223] regarding indefiniteness and denies defendant's cross-motion for summary judgment [dkt. no. 231] regarding indefiniteness and lack of written description. The Court denies both parties' motions to exclude certain expert opinions [dkt. nos. 224, 232]. The case is set for a telephonic status hearing on September 12, 2023 at 8:30 AM Central time (9:30 AM Eastern time) to discuss logistical and other issues relating to the upcoming jury trial as well as the possibility of settlement. The

following call-in number will be used: 888-684-8852, access code 746-1053.

MATTHEW F. KENNELLY
United States District Judge

Date: September 7, 2023