UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

SIONYX, LLC and PRESIDENT AND FELLOWS OF HARVARD COLLEGE, **Plaintiffs,** **v.** **HAMAMATSU PHOTONICS K.K.; HAMAMATSU CORPORATION; OCEAN OPTICS, INC.; and DOES 1 THROUGH 10,** **Defendants.**	**Civil Action No. 15-13488-FDS**

MEMORANDUM AND ORDER ON MOTIONS TO EXCLUDE EXPERT TESTIMONY

SAYLOR, J.

This is an action for patent infringement, breach of contract, and correction of inventorship. The technology at issue involves a device that improves the detection of near-infrared light, which has a variety of potential commercial and scientific applications. Plaintiff SiOnyx, LLC alleges that it approached defendant Hamamatsu Photonics K.K. ("HPK") concerning a potential business partnership involving the technology. The parties entered into a nondisclosure agreement and SiOnyx provided HPK with certain technical information.

SiOnyx alleges that after that approach proved unsuccessful, HPK violated the nondisclosure agreement, obtained patents on SiOnyx's technology without naming SiOnyx personnel as inventors, and infringed other patents held by SiOnyx. HPK contends that its engineers independently developed the technology contained in its patents and practiced by its products, and denies infringement.

Plaintiffs have filed a motion seeking to exclude the testimony of defendants' expert, Dr. Shukri Souri. Defendants have filed a motion seeking to exclude the testimony of plaintiffs' expert, Pauline Booth. For the reasons given below, plaintiffs' motion will be denied, and defendants' motion will be granted in part and denied in part.

I. **Standard of Review**

Federal Rule of Evidence 702 provides as follows:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
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> (a) the expert's scientific, technical or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
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> (b) the testimony is based on sufficient facts or data;
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> (c) the testimony is the product of reliable principles and methods; and
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> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. The adoption of Rule 702 in its present form codified the standard of admissibility for expert testimony that was set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). *United States v. Diaz*, 300 F.3d 66, 73 (1st Cir. 2002).

Under Rule 702, district courts considering the admissibility of expert testimony must "act as gatekeepers, ensuring that an expert's proffered testimony 'both rests on a reliable foundation and is relevant to the task at hand.'" *Samaan v. St. Joseph Hosp.*, 670 F.3d 21, 31 (1st Cir. 2012) (quoting *Daubert*, 509 U.S. at 597). That gatekeeping function requires that the court consider three sets of issues: (1) whether the proposed expert is qualified by "knowledge, skill, experience, training or education"; (2) whether the subject matter of the proposed testimony properly concerns "scientific, technical, or other specialized knowledge"; and

(3) "whether the testimony [will be] helpful to the trier of fact, *i.e.*, whether it rests on a reliable foundation and is relevant to the facts of the case." *Bogosian v. Mercedes-Benz of N. Am., Inc.*, 104 F.3d 472, 476 (1st Cir. 1997) (quoting Fed. R. Evid. 702) (internal quotation marks omitted).

The requirement that an expert's testimony must be based on a reliable foundation is often the "central focus of a *Daubert* inquiry." *Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co.*, 161 F.3d 77, 81 (1st Cir. 1998). In *Daubert*, the Supreme Court enumerated a non-exhaustive list of factors that a court may consider in undertaking its reliability analysis: (1) whether the theory or technique can be (and has been) tested; (2) whether it has been subjected to peer review and publication; (3) whether it has a known rate of error; (4) whether there are standards controlling its application or operation; and (5) whether it is generally accepted in the relevant community. *Daubert*, 509 U.S. at 593-94; *see also Samaan*, 670 F.3d at 31-32.

Less centrally, but importantly, Rule 702 requires the court to examine whether those methods have been reliably applied. In other words, the court must "ensure that there is an adequate fit between the expert's methods and his conclusions." *Samaan*, 670 F.3d at 32 (citing *Daubert*, 509 U.S. at 591).

In evaluating whether expert testimony will be helpful to the trier of fact, the court must determine whether it is relevant, "not only in the sense that all evidence must be relevant, but also in the incremental sense that the expert's proposed opinion, if admitted, likely would assist the trier of fact to understand or determine a fact in issue." *Ruiz-Troche*, 161 F.3d at 81 (citations omitted); *see also Cipollone v. Yale Indus. Prods., Inc.*, 202 F.3d 376, 380 (1st Cir. 2000) ("The ultimate purpose of the *Daubert* inquiry is to determine whether the testimony of the expert would be helpful to the jury in resolving a fact in issue.").

The focus of the Rule 702 inquiry is on the principles and methodology employed by the expert, not the ultimate conclusions. *Daubert*, 509 U.S. at 595. The court may not subvert the role of the fact-finder in assessing credibility or in weighing conflicting expert opinions. Rather, "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Id.* at 596; *see also Ruiz-Troche*, 161 F.3d at 85 (admitting testimony notwithstanding a lack of peer-reviewed publications because the opinion rested upon good grounds generally and should be tested by the "adversary process").

Expert testimony that is admissible under Rule 702 may nonetheless be excluded under Rule 403 "if its probative value is substantially outweighed by the danger of one or more of the following: unfair prejudice, confusion of the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence." Fed. R. Evid. 403; *see also Daubert*, 509 U.S. at 595. Thus, expert testimony that is relevant and that passes muster from a scientific or technical standpoint may nonetheless be excluded if it is likely to be misinterpreted or misused by the jury.

II. Analysis

A. Plaintiffs' Motion to Exclude Testimony of Dr. Shukri Souri

Plaintiffs seek to preclude the testimony of defendants' expert, Dr. Shukri Souri. Dr. Souri is an electrical engineer who is a vice president of Exponent, Inc., an engineering and scientific consulting firm headquartered in California.

Dr. Souri issued an expert report on January 26, 2018. Among other things, the report concluded that claims 1, 2, and 3, of U.S. Patent No. 8,080,467 ("the '467 patent'") were obvious based on a combination of various publicly available sources.

Plaintiffs contend that Dr. Souri failed to "address or consider objective indicia of non-obviousness (also known as 'secondary indicia of non-obviousness')," as required under *Graham v. John Deere, Co. of Kansas City*, 383 U.S. 1 (1966). By failing to do so, plaintiffs allege, Dr. Souri applied an incorrect legal standard, and thus his report is unreliable.

Graham provides that an expert conducting an obviousness determination shall base his or her conclusion on four underlying factors: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective indicia of non-obviousness. *Id.* at 17-18; *see also Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012). Plaintiffs contend that Dr. Souri's statement that he had "not seen any evidence of 'secondary considerations for the patent claims discussed herein that would change my ultimate conclusions of obviousness" constitutes a failure to consider the fourth factor of *Graham*.

Dr. Souri did not, however, state that he failed to *consider* secondary considerations of non-obviousness; rather, his statement indicates only that he had not *seen* any signs of non-obviousness that were significant enough to have changed his ultimate conclusion. Read in context with the preceding paragraph of the report, in which Dr. Souri states that each of the *Graham* factors—including "objective evidence that may weigh against a finding of obviousness"—must be considered in "mak[ing] a determination that a claim is obvious," his statement indicates that he conducted the requisite analysis. Therefore, Dr. Souri did not apply an "incorrect legal standard."

Of course, plaintiffs can confront Dr. Souri on cross-examination with whatever evidence of "objective indicia of non-obviousness" they can muster—including, presumably, any evidence suggesting that HPK improperly copied and used the SiOnyx technology. But his opinion will not be excluded on the ground that he failed to consider the *Graham* factors. Plaintiffs' motion to exclude Dr. Souri's testimony in its entirety will therefore be denied.

B. <u>Defendants' Motion to Exclude Testimony of Pauline Booth</u>

Defendants seek to preclude the testimony of plaintiffs' expert, Pauline Booth. Booth is a managing director of Duff & Phelps, a global valuation and corporate finance advisor.

On February 9, 2018, Booth issued an expert report setting forth her opinion on the amount of plaintiffs' damages. That report includes opinions concerning (1) breach of contract damages due to the loss of an anticipated agreement between SiOnyx and Nikon; (2) breach of contract damages based on the sale of products by HPK that included confidential information of SiOnyx; (3) unjust enrichment damages from HPK; and (4) royalties due to SiOnyx due to the alleged patent infringement. Defendants object to each of Booth's opinions.

1. <u>Breach of Contract Damages – Loss of Nikon Business</u>

The first issue concerns damages alleged to have been incurred when HPK breached the nondisclosure agreement and obtained patents on the technology, which (SiOnyx contends) caused Nikon to back out of a prospective business deal.

At the outset, it should be noted that the damages at issue arise out of an alleged breach of contract, not a tortious act. Although Booth refers to the damages from the loss of the Nikon business as a "direct loss" (Booth Rep. at 11), in fact they constitute indirect, or consequential, damages. As a general matter, a breaching party is liable for consequential damages that were reasonably foreseeable to the parties at the time of the formation of the contract. *See, e.g., United California Bank v. Eastern Mountain Sports, Inc.*, 546 F. Supp. 945, 969 (D. Mass. 1982).

Defendants do not argue that the claimed damages arising out of the loss of the Nikon business were not reasonably foreseeable consequences of the breach of the NDA. Presumably, it was reasonably foreseeable to HPK that if it breached the NDA and misappropriated the technology of SiOnyx, SiOnyx would lose business with other companies. The precise form of such losses would of course be unknown, but it was reasonably foreseeable that the lost business would probably involve a long-term relationship with a larger partner to develop products using the technology. Nonetheless, the law requires that any consequential damages must have been reasonably foreseeable to be recoverable, and that any such damages may not be unduly speculative.

a. <u>$2 Million Loss - MOU</u>

In December 2014, SiOnyx and Nikon entered into a Memorandum of Understanding. By its express terms, the MOU was "an expression of mutual understanding only" and "not legally binding." (MOU, ¶ 5). Instead, it "describes the two frameworks in which . . . [SiOnyx] intends to develop [a] certain customized silicon sensor . . . and supply the Custom Sensor exclusively to [Nikon]; and [SiOnyx] intends to supply . . . [a] non-customized silicon sensor . . . exclusively to [Nikon]." (*Id.* at 1). The purpose of the MOU was to "facilitate negotiations between the parties in good faith" to "undertake" the development and supply of the custom sensor and the supply of the non-custom sensor. (*Id.*). The MOU contemplated that it "shall be deemed to be terminated" by the end of June 2015 if no further agreements were reached. (*Id.* ¶ 5).

As to the custom sensor, the agreement stated that Nikon and SiOnyx "will enter into" an Exclusive Development and Supply Agreement, "the purpose of which is to describe the framework in which [SiOnyx] will develop the Custom Sensor and supply the Custom Sensor to [Nikon] exclusively under certain manufacturing and supply conditions." (*Id.* ¶ 1). It provided that Nikon "intends to pay" $5 million to SiOnyx for non-recurring expenses for developing the new sensor. (*Id.*). The $5 million was to be paid in installments, according to various "target dates" and according to various conditions. (*Id.* ¶ 2). Among other things, the MOU contemplated the following:

- An installment of $250,000, to be paid by Nikon within five days of the "establishment of the preliminary specifications of the Custom Sensor and the preliminary planning of the Development schedule," which the parties "will confirm" by February 9, 2015. (*Id.* ¶ 3).
- A second installment of $1.5 million, to be paid within five days of the execution of an "Exclusive Development and Supply Agreement," to be entered into by March 9, 2015. (*Id.*).

The payment of the remainder of the $5 million "will be discussed and determined during negotiations" between the parties of the Exclusive Development and Supply Agreement. (*Id.*).

As to the non-custom sensor, the MOU provided that "[b]y the end of April, 2015," the parties would enter into a further supply agreement, "the purpose of which is to describe the framework of the Additional Exclusive Supply of the Non-Custom Sensor." (*Id.* ¶ 4). It provided that Nikon "intends" to pay SiOnyx $2 million to become the "exclusive supplier" of non-custom sensors for a period between April 1, 2015, and March 31, 2017, "in the worldwide medical market." (*Id.*). In addition, the MOU stated that "[i]n case Nikon intends to extend the Additional Exclusive Supply period after the [] two-year period, [Nikon] and [SiOnyx] will discuss about [sic] the additional consideration payment . . . ." (*Id.*).

At some point in the spring of 2015, Nikon pulled out of the arrangement. By that point, it had made the first payment to SiOnyx of $250,000. No further development or supply agreement was ever executed; no custom sensor was ever developed, and indeed no final specifications for the custom sensor were ever created; and no other payments were ever made by Nikon. Plaintiffs contend that Nikon stopped performing because it discovered the existence of HPK's patents—patents that plaintiffs allege HPK obtained by breaching the nondisclosure agreement with SiOnyx.

Booth's report divides the "direct loss" SiOnyx suffered from Nikon terminating its work under the MOU into three categories: (1) the loss of expected exclusivity income; (2) the loss of expected profit on non-recurring expenses; and (3) the loss of value from a future engineering asset. Booth concludes that SiOnyx lost either $2 or $5 million in exclusivity fees (depending on the length of the exclusivity period); $25,105 in lost profits on non-recurring expenses; and $992,080 from the lost engineering asset, for a total loss of either $3,017,185 or $6,017,185.

Defendants contend that because the MOU was not legally binding, it is an insufficient basis to support Booth's conclusions. Essentially, defendants ask the court to hold that "'non-final' letters of intent such as the [MOU] are not sufficiently reliable to support an expert's opinion." Def. Mem. at 5. As support, defendants cite two related cases from the Southern District of Ohio, *Antioch Co. Litigation Trust v. McDermott Will & Emery LLP*, 2016 WL 4480651 (S.D. Ohio, Aug. 25, 2016) and *Antioch Co. Litigation Trust v. Morgan*, 2014 WL 1365949 (S.D. Ohio Apr. 7, 2014). In those cases, an expert relied upon a non-binding letter of intent in making her damages calculation. In finding the expert's opinion to be unreliable, the court held that the letter of intent was "hearsay," and that an expert, although she may "rely on hearsay," may not "do so blindly, without confirming [the hearsay's] reliability." *Morgan*, 2014 WL 1365949 at * 3.

It is certainly true that the MOU was not legally binding, but instead merely "describe[d] a framework" under which Nikon and SiOnyx might enter into future agreements. (MOU at 1).

But it is doubtful that the MOU is "hearsay," as opposed to an operative document outlining a potential business arrangement. In any event, Booth does not appear to have relied on it "blindly, without confirming its reliability." As her report and deposition testimony indicate, Booth relied on various forms of evidence—including correspondence and negotiations between SiOnyx and Nikon, and the fact that Nikon actually made an initial payment to SiOnyx—in reaching her conclusion. The mere fact that the MOU was non-binding goes "not to the admissibility of [Booth's] testimony but rather the weight it should be accorded," and are therefore judgments for the jury, not the court. *WBIP, LLC v. Kohler Co.*, 965 F. Supp. 2d 170, 173 (D. Mass. 2013).

Defendants further contend, in substance, that Booth's damages opinions are unduly speculative, given the lack of a binding agreement and the substantial number of assumptions underlying her conclusions. Among other things, Booth appears to have assumed that multiple future agreements would be negotiated and executed; that those agreements would be on terms that were favorable to SiOnyx; and that the technology would be developed in a manner satisfactory to Nikon. And because SiOnyx does not intend to call any Nikon witnesses to testify as to that company's intentions or expectations, all of the evidence on which those assumptions are based comes from SiOnyx.

Under the circumstances, Booth's opinions are surely at or near the outer boundary of admissibility under Rule 702. Nonetheless, with the two exceptions noted below, they are not so speculative that their exclusion is required. Among other things, the claim of $2 million in damages arising out of the claimed loss of the exclusive supply agreement for non-custom sensors is based on a specific price for a specific period of time that is set out in the MOU, as opposed to be conjured out of nothing. Rather than excluding her opinions entirely, her assumptions, and the conclusions she draws from them, should be put to the test through vigorous cross-examination.

b. **<u>$3 Million Loss – Extension of MOU</u>**

Defendants further contend that even if Booth is permitted to rely upon the MOU, the court should strike that portion of her testimony concerning the $3 million of fees that would be due under an extension of the proposed two-year exclusive supply arrangement in the MOU.

As noted, the MOU contemplated that Nikon would at some point agree to pay SiOnyx $2 million to become an "exclusive supplier" of certain products for two years, and that the parties would discuss extending that period in the future. In her report, Booth writes that based on a "Draft MOU Presentation" Stephen Saylor made to Nikon, the "extension" mentioned in the MOU "was expected to be for 3 years for an additional $3 million (i.e., $1 million per year), and that the $3 million payment would be required upon the release of any products developed in connection with the Exclusive Development and Supply Agreement." (Booth Rep. at 13).[1] Booth concludes that SiOnyx's lost exclusivity fees can be understood as a range, from a "low" of $2 million "represent[ing] the initial two year exclusivity period," to a "high" of $5 million, "represent[ing] both the initial two-year exclusivity period, as well as the three-year extension contemplated in the Draft MOU Presentation." (*Id*. at 19).

Defendants first contend that Booth should not be allowed to testify as to the additional $3 million because Massachusetts law does not allow courts to "'look beyond the four corners" of an agreement when interpreting an unambiguous contract. That objection, however, is clearly misplaced. The issue is not whether the MOU is ambiguous, or whether Booth should be limited

[1] Both sides seem to assume that both the $2 million payment and the follow-on $3 million payment represented pure profit to SiOnyx, with no offsetting expenses. It is by no means clear why that would be so, but the Court has no basis in the record to assume otherwise.

by the rules of contract interpretation in resolving any ambiguity.

Nonetheless, her calculation as to the $3 million is clearly problematic. As defendants correctly note, neither the purported period of extension nor the purported price is mentioned in the MOU. And in order to include the $3 million as consequential damages, Booth necessarily assumed that the process outlined in the MOU would have resulted in a successful business relationship; that the contemplated two-year exclusive supply agreement would be executed; that the result of the exclusive supply agreement would be satisfactory to both sides, so that both sides would seek to extend it; that the period of extension would be three years; *and* that the price for those three years would be the price SiOnyx desired.

It is true, of course, that the MOU states that if Nikon intends to extend the "Additional Exclusive Supply Period" after two years, Nikon and SiOnyx "will discuss about the additional consideration payment." The possibility of an extension is thus not fabricated out of whole cloth. There is, however, no evidence from any Nikon representative suggesting that Nikon would have been willing to enter into an extension for any period, much less three years, or to pay the price SiOnyx desired. Indeed, there will be no evidence from Nikon at all.

Damages calculations can be based on assumptions and projections, but those assumptions and projections must be properly grounded in the evidence. As to this portion of the damages calculation, Booth relies on a chain of assumptions that becomes increasingly speculative at each succeeding step. While there is no bright line separating the reasonable from the unreasonable, at some point the degree of speculation simply becomes too great. That has plainly happened here. Accordingly, Booth's calculation that SiOnyx suffered the loss of a $3 million payment from Nikon as a consequential damage arising out of HPK's breach of the NDA will be excluded as unduly speculative.

c. <u>Saving on Chip Development</u>

Defendants next contend that Booth's calculation of the value of a "lost engineering asset" of SiOnyx should likewise be excluded (1) because the MOU called for an exclusive arrangement with Nikon, thus precluding SiOnyx from making other commercial use of the asset, and (2) because valuing such an asset is not consistent with generally accepted accounting principles. *See Quilez-Velar v. Ox Bodies, Inc.*, 823 F.3d 712, 718 n. 7 (1st Cir. 2016).

In a portion of her report titled "Value of the Lost Engineering and Development Assets," Booth states that SiOnyx "expected to realize cost savings as a result of the development efforts performed as part of the Nikon agreement." (Booth Rep. at 16). In substance, Booth contends that SiOnyx, once it had developed a chip for Nikon, would have been able to eliminate or reduce certain costs in the development of a next-generation chip. Specifically, she states that SiOnyx expected that it would be "able to leverage" the efforts it undertook in developing the custom sensor chip for Nikon to reduce its costs in developing a different chip, to be called the X4. Among other things, she assumes that test chips and mask sets used to develop the Nikon chip could have been reused to develop that chip. Based on SiOnyx's history of having "realized savings in the development of [] chips by leveraging prior work," she concluded that losing the chance to develop Nikon's chip cost SiOnyx approximately $992,080 in future savings.

Defendants first argue that because the MOU contemplated an exclusive arrangement, SiOnyx could not (assuming the MOU was enforceable) even make use of such an asset. That argument appears, however, to miscast the nature of the claims. SiOnyx claims it would have realized savings on the development of a next-generation chip with undescribed functions and capabilities. How an exclusivity arrangement—which, apparently, would have made SiOnyx an exclusive supplier to Nikon, not given Nikon exclusive rights to use the technology—might have affected the value of that is unclear. Presumably, and at a minimum, SiOnyx could have used the technology outside the medical field. In any event, the opinion will not be excluded on that basis.

Second, defendants contend that Booth "attribut[ed] value to [SiOnyx's] research and development as an asset," a practice it contends is not permitted under accounting-industry standards promulgated by the Financial Accounting Standards Board ("FASB"). As support for that contention, defendants cite to FASB's Topic 730, which establishes standards of financial accounting and reporting for research and development costs. Among other things, Topic 730 provides that "there is often a high degree of uncertainty about whether research and development expenditures will provide any future benefits." For that reason, the FASB concludes that "[r]esearch and development costs . . . fail to satisfy the suggested measurability test for accounting recognition as an asset."

The FASB standards appear to be applicable, if at all, by analogy—that is, because FASB rules provide that the value of research and development costs should not be recognized as an asset, a similar approach should be taken when attempting to value such an asset for purposes of calculating damages. There is considerable merit to that proposition. Nonetheless, accounting standards may be more rigorous than the standards for calculating damages in breach of contract cases, and the Court will not exclude the opinion based solely on the FASB standard.

That is not, however, the end of the analysis. Booth's opinion as to the "lost engineering and development assets," like other portions of her opinion, appears to rest on a set of factual assumptions, some of which are highly speculative. She necessarily assumes that the parties would have come to a final agreement as to development of a new custom chip for use in the medical field; that the chip would actually have been developed; that the chip would be technologically successful; that SiOnyx would have also developed a next-generation non-custom chip; that it would have been able to re-use certain items (such as masks) created in developing the Nikon chip in order to develop that next-generation chip; that those items would have remained the property of SiOnyx, without restrictions as to their use; that using the items would have resulted in a saving based on "leveraging" the prior work; and that the resulting saving is quantifiable.

Again, that is a chain of assumptions that clearly crosses the line into speculation. SiOnyx had no binding agreement with Nikon to develop a chip, and there is nothing whatsoever in the MOU about ownership or use of engineering assets. And, in any event, the development of such technology is fraught with uncertainty at best. Under the circumstances, there is an insufficient foundation to permit such a calculation to go to the jury as a consequential damage for breach of the NDA. Accordingly, Booth's opinion as to damages arising from the "lost engineering and development assets" will be excluded.

2. <u>Breach of Contract Damages – Loss of Royalties from HPK</u>

Booth's report further concludes that HPK's alleged breach of the NDA caused SiOnyx to lose out on future royalty payments from HPK. Because SiOnyx and HPK did not actually enter into a development agreement, Booth assumes the existence of a hypothetical agreement to help calculate the royalties SiOnyx is due. Ultimately, Booth's report concludes that HPK's royalty payments to SiOnyx would consist of both an initial lump sum payment and "running" royalties. Defendants object to Booth's conclusions as to both.

a. <u>Lump Sum Payment</u>

Booth concludes that it would have been "reasonable" for SiOnyx to "negotiate a $1 million up front lump sum payment" from HPK. In reaching that conclusion, Booth appears to rely on the fact that SiOnyx "negotiated various types of lump sum upfront payments" in agreements it had previously negotiated with Coherent, Nikon, and Microsoft. In particular, Booth writes, the amount of $1 million was "base[d] . . . on the $2 million" Coherent invested in SiOnyx upon entering into a joint development agreement.

Defendants contend that SiOnyx's agreement with Coherent is not an appropriate comparator because it is too dissimilar from the hypothetical agreement between SiOnyx and HPK—in particular, because HPK had declined to invest in SiOnyx. In support of their argument, defendants cite to the Federal Circuit's holding in *Uniloc USA, Inc. v. Microsoft Corp*. that "a patentee [can] not rely on license agreements that [are] radically different from the hypothetical agreement under consideration to determine a reasonable royalty." 632 F.3d 1292, 1316 (Fed. Cir. 2011). Essentially, defendants contend that the two agreements are "radically different" because Coherent's payment constituted a capital investment in SiOnyx, while SiOnyx and HPK's relationship involved no consideration of an investment. Defendants contend that Booth "completely failed to consider" this difference.

At the outset, Booth did expressly "consider" the fact that Coherent's up-front payment to SiOnyx was a capital investment. (*See, e.g.*, Booth Rep. at 23). In any event, while the Coherent agreement and Booth's hypothetical agreement are certainly different, the differences are not so obviously "radical" as to require exclusion of the opinion. The rule defendants cite regarding "radically different" license agreements arose in *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009). There, in a case involving a patent dispute between Lucent and Dell, a damages expert relied on eight "varied" agreements between "various" companies to create a hypothetical license agreement between Lucent and Dell. Of the eight agreements, two were between IBM and Dell and covered the licensing of IBM's "entire patent portfolio" for "broad, PC-related technologies." The hypothetical agreement between Lucent and Dell, by contrast, involved only "one patent" that covered a single "graphical user interface tool known as the date-picker." *Lucent*, 580 F.3d at 1328. Accordingly, the court concluded that at least some of the eight agreements were "vastly different" from the expert's hypothetical agreement. *Id.*

A few months later, the Federal Circuit held in *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010), that a damages expert's testimony was unreliable because he had considered "radically different" license agreements in forming a hypothetical agreement. The expert in *ResQNet.com* formed a hypothetical license agreement based on license agreements that did not even have a "discernible link to the . . . technology" in question in the case at hand. *Id.* at 870.

Again, Booth's opinion rests on substantial factual assumptions, including the assumption that the hypothetical agreement would resemble the Coherent agreement. Nonetheless, the differences are not so "radical" that Booth's testimony must be deemed unreliable and therefore be excluded.

Defendants also object to Booth's reliance on the Nikon and Microsoft agreements in concluding that HPK would have agreed to pay SiOnyx a lump sum. Citing language from *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 30 (Fed. Cir. 2012), defendants appear to contend that Booth's report "artificially inflate[s]" the value of the hypothetical lump sum by using SiOnyx's "outrageous offers" to Nikon and Microsoft as a reference. But Booth's report appears to consider only the Coherent agreement—and not the potential Nikon and Microsoft agreements—in determining the "amount" or the "value" of the hypothetical lump sum. Indeed, the report itself states that "amount" of the hypothetical lump sum is "base[d] . . . on [SiOnyx's] $2 million negotiation with Coherent."

In summary, Booth's conclusion as to a lump-sum payment is not so unreliable as to violate the requirements of Rule 702. Again, those conclusions should be put to the test on cross-examination rather than be excluded entirely.

b. Running Royalty

Defendants further object to Booth's calculations concerning the running royalty she includes in the hypothetical agreement between SiOnyx and HPK. In substance, defendants contend that the opinion is "not sufficiently tied to the facts of the case" to withstand scrutiny. In addition, defendants contend that Booth's opinion suffers from "inconsistencies" serious enough to require its exclusion.

Booth's report attempts to determine a running royalty rate for the hypothetical agreement that is comparable to the running royalty rate in the Coherent agreement. Her analysis appears to be as follows:

First, she looked to the relevant numbers in the Coherent agreement: a royalty rate of between 2.5 and 3% and a profit rate of 41.4%. Using those numbers, Booth concluded that Coherent's royalty rate was conservatively 6% of its profit rate (2.5/41.4 = 6.04).

Second, Booth considered both SiOnyx's own forecasts and HPK's actual sales of the accused products to conclude that HPK would likely have achieved a profit rate of between 65 and 73%.

Then, apparently without additional explanation, Booth concluded that the royalty rate between SiOnyx and HPK would have been between 6.2 and 7.8%. Although the report is silent as to her calculations, Booth provided more details at her deposition. Essentially, Booth testified that HPK's profit rate (65-73%) was between 1.58 and 1.76 times larger than Coherent's profit rate (41.4%). She seems to have assumed that HPK's royalty-to-profit rate would also have been

1.58-1.76 times larger than Coherent's royalty-to-profit rate of 6%. Accordingly, she testified that HPK would have a royalty-to-profit rate of between 9.48% (6% x 1.58) and 10.56% (6% x 1.76). Finally, given the royalty-to-profit rate of 9.48-10.56% and the profit rate of 65-73%, she concluded that HPK's royalty rate likely would have ranged from a low of 6.2% (9.48% of 65%) to a high of 7.8% (approximately 10.56% of 73%).

Booth's report is by no means a model of clarity. However, defendants have failed to show that the report is so unreliable as to warrant its exclusion. Although Booth's report would benefit from a more detailed analysis, an expert need not always provide exhaustive explanations of each and every step of her analysis. And while defendants have identified potential points of weakness or inconsistencies in Booth's conclusions, they have not shown that her analysis is so disconnected from the facts of the case as to require exclusion. Ultimately, therefore, her testimony will not be excluded on that basis.

3. Unjust Enrichment

Next, defendants object to Booth's opinion concerning the amount of HPK's profits that should be disgorged under a theory of unjust enrichment.

Essentially, defendants take issue with Booth having considered HPK's profits after January 11, 2015, the date that the NDA's confidentiality obligations expired. Defendants argument seems to be straightforward: that because HPK's obligation to keep SiOnyx's information confidential expired on that date, HPK "should not be liable for any damages" incurred afterward.

Defendants have provided no authority—other than citing to *Daubert*'s holding that an expert's testimony is required to be "sufficiently tied to the facts of the case"—to support the proposition that the unjust enrichment damages must end with the expiration of the NDA's confidentiality requirements. While it is possible that Booth's conclusion as to damages is over-inclusive, the fact that her analysis simply includes profits that were accrued beyond the date of the confidentiality requirement's expiration does not on its own call for the testimony to be excluded. Accordingly, their motion is denied as to that ground.

4. Patent Infringement - Royalty Calculator

Next, defendants object to Booth's conclusion concerning the royalty due for defendants' alleged patent infringement.

Applying the factors set forth in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970), Booth assumed a hypothetical patent license agreement between SiOnyx and HPK. Relying primarily on SiOnyx's patent license agreement with Harvard as a comparison, she concluded that HPK would have owed SiOnyx $443,333 in pre-interest "reasonable royalties," split between an annual royalty of $243,333 and a $200,000 up-front lump sum payment. Defendants object to both the annual royalty and lump-sum calculations.

a. Annual Royalty

In reaching her conclusion that HPK would owe SiOnyx annual royalty payments, Booth in part relied on SiOnyx's "projections of its own sales." Defendants appear to contend that by doing so her conclusion is rendered unreliable.

In support of their contention, defendants cite four cases where courts have excluded the testimony of experts who have relied on a company's own projections in calculating damages. But in three of those cases, the court's holding specifically rests on the fact that the expert relied *exclusively* on a client's own projections without considering other objective evidence. *See Capital Concepts, Inc. v. Mountain Corp.*, 936 F. Supp. 2d 661, 664 (W.D. Va. 2013) ("[the expert] relied solely upon [information] provided by [the client] . . . "); *Otis v. Doctor's Associates, Inc.*, 1998 WL 673595 at *1 (N.D. Ill. Sept. 14, 1998) ("[the expert's] calculations were . . . based exclusively on projections contained in [the party's agreement]."); *Downeast Ventures, Ltd. v. Washington County*, 2007 WL 679887 at *3 (D. Me. Mar. 1, 2007) ("[the expert] arrived at these sales figures based entirely on [the client's] subjective expectations."). In addition, in the only case in which an expert relied on evidence beyond a company's own projections—*Fail-Safe, L.L.C. v. A.O. Smith Corp.*, 744 F. Supp. 2d 888 (E.D. Wis. 2010)—the other "evidence" was deemed "weak," "suspect," and "outdated to say the least." Defendants, however, have offered no indication that the other evidence relied on by Booth (which appears to include defendants' own sales projections) is so weak or suspect that it cannot form the basis of reasonable expert opinion.

In short, although Booth's heavy reliance on SiOnyx's own projections certainly opens her testimony to attack, her report will not be excluded for that reason. Accordingly, defendants' motion will be denied as to that ground.

b. Lump Sum

Finally, defendants object to Booth's determination that HPK would owe SiOnyx an "up-front lump sum payment" of $200,000.

First, defendants contend that Booth inappropriately offered an opinion without showing any calculations. The cases defendants cite, however, do not support their contention. In *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 992 (5th Cir. 1997), the Fifth Circuit upheld a district court's decision to exclude a witness's testimony concerning a defective conveyor. The court stated that "[the expert in that case] did not even make any drawings or perform any calculations that would allow a trier of fact to infer that his theory that the conveyor design was defective . . . [was] supported by valid engineering principles." *Id.* *Watkins* does not provide that a damages expert must provide detailed calculations in order to testify that a lump-sum payment would be made under a hypothetical licensing agreement.[2]

Second, defendants cite *Whitserve*'s holding that "there is no justification for an award that adds [development] costs on top of a running royalty based verdict." 694 F.3d at 33. Defendants, have not, however, shown that Booth's report includes any analogous "development" costs. Accordingly, that contention is likewise without merit.

III. Conclusion

For the foregoing reasons,

1. Plaintiffs' motion to exclude the testimony of defendants' expert, Dr. Shukri Souri, is DENIED.
2. Defendants' motion to exclude the testimony of plaintiffs' expert, Pauline Booth, is GRANTED as to the testimony concerning (1) $3 million in claimed damages arising out of a hypothetical three-year extension of the memorandum of understanding with Nikon, and (2) $992,080 in claimed damages arising out of lost engineering and development assets arising out of that memorandum of understanding, and is otherwise DENIED.

So Ordered.

/s/ F. Dennis Saylor IV
F. Dennis Saylor IV
United States District Judge

Dated: April 18, 2019

[2] Defendants also cite *Lemon v. Harlem Globetrotters Int'l, Inc.*, 437 F. Supp. 2d 1089, 1104-07 (D. Ariz. 2006), the court excluded the testimony of a damages expert because her report did not "even purport to estimate the damages of each individual [p]laintiff." *Id.* at 1104. Again, that case is distinguishable from the present case.