


NOREIKA, U.S. DISTRICT JUDGE:

Plaintiffs Intuitive Surgical, Inc. and Intuitive Surgical Operations, Inc. (collectively, “Intuitive”) sued Defendant Auris Health, Inc. (“Auris”) for infringement of several patents related to minimally invasive robotic-assisted surgical systems.¹ (D.I. 1). Before the Court are 1) Intuitive’s Motion to Exclude and Strike Opinions and Testimony of Auris’s Experts (D.I. 293), 2) Auris’s Motion for Summary Judgment of Non-infringement of U.S. Patent Nos. 6,800,056, 8,801,601,² and 9,452,276 (D.I. 303) and 3) Auris’s Motion for Summary Judgment of No Willful Infringement (D.I. 300). The Court held a conference call with the parties on July 8, 2021 to discuss certain issues in these motions. For the reasons discussed below, each of the motions will be granted-in-part and denied-in-part.

I. BACKGROUND

Intuitive manufactures, develops, and distributes minimally invasive robotic-assisted surgical systems such as the da Vinci System. (D.I. 1 ¶¶ 2, 9). Auris developed the Monarch Endoscopy Platform (“Monarch”), which is a robotic bronchoscopy device. (*Id.* ¶¶ 18, 21).

The asserted patents claim devices, methods, and systems related to robotic surgery. The ’447 patent discloses improved robotic surgical devices, systems and methods for preparing for and performing robotic surgery. (’447 patent, 2:61–63). The ’276 patent discloses a catheter system with removable vision probe. (’276 patent, 2:56–57). The ’056 patent discloses an endoscope with guiding apparatus. (’056 patent, 1:66–2:2). The ’906 patent discloses devices and

¹ Intuitive asserts U.S. Patent Nos. 8,142,447, 9,452,276, 6,800,056, 8,801,601, and 6,522,906.

² During the March 23, 2021 teleconference, the Court stayed the proceedings on the ’601 patent pending appeal of the Final Written Decision of the Patent Trial and Appeals Board (“PTAB”) invalidating all claims. The Court also denied all motions concerning the ’601 patent without prejudice to renew should any claims survive after the pending appeal.

methods for presenting and regulating auxiliary information on an image display of a telesurgical system to assist an operator in performing a surgical procedure. ('906 patent, 3:42–4:34). Two of the motions at issue in this opinion relate to infringement issues with respect to these four patents.

II. LEGAL STANDARDS

A. Motion to Exclude Expert Opinions and Testimony

Rule 702 of the Federal Rules of Evidence provides:

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:

- (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;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

FED. R. EVID. 702. "Rule 702 embodies a trilogy of restrictions on expert testimony: qualification, reliability and fit." *Schneider ex rel. Estate of Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003). First, to be qualified, a witness must possess specialized expertise. *Id.* The Third Circuit construes this requirement liberally, holding that "a broad range of knowledge, skills, and training qualify an expert." *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 741 (3d Cir. 1994). Second, to be reliable, the opinion must be "ground[ed] in the methods and procedures of science" and "more than subjective belief or unsupported speculation." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 590 (1993). Third, the expert's opinion "must be relevant for the purposes of the case and must assist the trier of fact." *Schneider*, 320 F.3d at 404.

The proponent of the expert testimony bears the burden of proving its admissibility by a preponderance of evidence. *EMC Corp. v. Pure Storage, Inc.*, 154 F. Supp. 3d 81, 92 (D. Del. 2016); *Daubert*, 509 U.S. at 592 n.10. “Where there is a logical basis for an expert’s opinion testimony,” the court should deny a *Daubert* motion and instead allow the jury to determine the credibility and weight of the testimony based on “vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof.” *Masimo Corp. v. Philips Elec. N. Am. Corp.*, 62 F. Supp. 3d 368, 387–88 (D. Del. 2014) (quoting *Daubert*, 509 U.S. at 596).

B. Motion for Summary Judgment

Summary judgment shall be granted “if the movant 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). “Facts that could alter the outcome are ‘material,’ and disputes are ‘genuine’ if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct.” *Horowitz v. Fed. Kemper Life Assurance Co.*, 57 F.3d 300, 302 n.1 (3d Cir. 1995) (internal citations omitted). The moving party bears the burden of proving that no genuine issue of material fact exists. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 585 n.10 (1986).

If the moving party carries its burden, “the nonmoving party must come forward with specific facts showing that there is a genuine issue for trial.” *Id.* at 587 (cleaned up). The nonmoving party must support an assertion that a material fact is genuinely disputed by: “(A) citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations . . . , admissions, interrogatory answers, or other materials; or (B) showing that the materials cited do not establish the absence . . . of a genuine dispute” FED. R. CIV. P. 56(c)(1).

When deciding whether a genuine issue of material fact exists, the court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). “The mere existence of some alleged factual dispute between the parties,” however, “will not defeat an otherwise properly supported motion for summary judgment.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48 (1986) (emphasis omitted). “If the [nonmoving party’s] evidence is merely colorable, or is not significantly probative, summary judgment may be granted.” *Id.* at 249–50 (internal citations omitted).

III. DISCUSSION

A. Intuitive’s Motion to Exclude

1. Claim Construction Issues

a. Plain and Ordinary Meaning Terms

Intuitive moves to exclude portions of Dr. Alterovitz’s and Dr. Hooper’s non-infringement opinions regarding infringement of the patents-in-suit, asserting that the opinions improperly put the issue of claim construction before the jury regarding terms to be construed. Most of the terms at issue have been given their plain and ordinary meanings. The objections raised as to those terms fall mainly into one of three categories: citation to embodiments in the specification, citation to the prosecution history, and citation to inventor testimony. Dr. Alterovitz and Dr. Hooper may rely on portions of a patent to note that the patent uses the terms consistent with their plain and ordinary meanings. They may not, however, use the patents to assert that the patent claims are limited to the embodiments cited. Additionally, during the July 8, 2021 teleconference, the parties agreed that Dr. Alterovitz and Dr. Hooper may not rely on the cited portions of the prosecution history or inventor testimony at trial until Defendant has obtained permission of the Court to do so

upon a showing that the proffered evidence is relevant to the plain and ordinary meaning of the term.

b. End Effector Mounting Formation

One of the terms at issue in Intuitive’s motion addresses Dr. Hooper’s opinion that the Monarch platform does not have an “end effector mounting formation” as required by claim 2 of the ’447 patent. (D.I. 312 at 3–4, 7). One of the bases for Dr. Hooper’s opinion is that the Monarch does not have an “end effector,” and thus cannot have an “end effector mounting formation.” Dr. Hooper opined that the devices at the end of the Monarch bronchoscope – a camera, lights, and the distal opening of the working channel – do not interact with the environment and are thus not an “end effector.”³ (D.I. 313-2, Ex. 7 ¶¶ 83–84). The Court construed “end effector” to mean “device at the end of an instrument used in surgery designed to interact with the environment.” (D.I. 141 at 7). The Court rejected Auris’s proposal that an end effector must manipulate, by cutting, grasping, or otherwise acting on, body tissue. (*Id.* at 6–8). The Court acknowledged that the ’447 patent does not foreclose the possibility that an image capture device, which does not necessarily manipulate tissue, could be an end effector. (*Id.* at 8).

Nevertheless, Dr. Hooper opines that “each component is designed to stay away from surrounding tissue (*e.g.*, to leave space to illuminate or image the tissue or to allow a manual tool to extend from the working channel towards the tissue)” and thus does not interact with the environment. (*Id.* ¶ 84). Dr. Hooper’s opinion equates “interact[ing] with the environment” with not “stay[ing] away from surrounding tissue,” a narrowed definition that the Court rejected during

³ Dr. Hooper also opined that Monarch does not have an end effector because it does not include a device at the end of the instrument that is used in surgery. (D.I. 313-2, Ex. 7, ¶ 82). Intuitive does not seek to exclude that opinion and thus, Dr. Hooper may testify that the Monarch does not have an “end effector mounting formation” based upon that opinion regarding the lack of an “end effector.”

claim construction.⁴ Dr. Hooper’s opinion that the Monarch’s camera, lights, and distal opening of a working channel are not end effectors based on risks confusing a jury and is thus excluded to the extent it relitigates the Court’s claim construction of “end effector.”⁵ See *EMC Corp.*, 154 F. Supp. 3d at 109 (citing *Personalized User Model, L.L.P. v. Google, Inc.*, C.A. No. 09-525-LPS, 2014 WL 807736, at *1 (D. Del. Feb. 27, 2014)).

Dr. Hooper also opined that the Monarch does not have an “end effector mounting formation” because the Monarch bronchoscope tip does not have a “mounting formation.” (D.I. 313-2, Ex. 7 ¶ 92). Dr. Hooper stated that the Monarch does not have an “end effector mounting formation” because “[t]here is no ‘mounting formation’ that mounts the tip, or any other component, to the distal end of the bronchoscope. The tip is instead bonded directly to the bronchoscope.” (*Id.*). His opinion is based in part on the fact that both the ’447 patent specification and the named inventor of the ’447 patent describe the “end effector mounting formation” as an articulable wrist joint. (*Id.* ¶¶ 95–96). Because the Monarch bronchoscope does not have an articulating wrist for mounting end effectors, Dr. Hooper concluded, the Monarch does not have an “end effector mounting formation.” (*Id.* ¶¶ 91–94, 97–99). Intuitive argues that Dr. Hooper improperly limited the construction of “end effector mounting formation” based on improper claim

⁴ Auris asserts that “touching, manipulating, or otherwise affecting the tissue” are merely examples of ways to “interact with the environment,” not an exhaustive list or definition. (D.I. 334 at 6–7). This contention, however, cannot be reconciled with Dr. Hooper’s conclusion that cameras, lights, and a working channel do not interact with the environment and are not end effectors specifically because they “stay away from surrounding tissue.”

⁵ Intuitive also asserts that the opinion should be excluded because Dr. Hooper errs as a matter of law by suggesting that claim 2 of the ’447 patent requires an “end effector.” (*Id.* at 13). Although claim 2 requires an “end effector mounting formation” and does not specify an “end effector,” an expert’s opinion of what generally constitutes an “end effector” may help a jury determine whether an accused product has an “end effector mounting formation.” Dr. Hooper’s opinion and testimony are not excluded on this basis.

construction arguments, the '447 specification, and testimony of the named inventor. (D.I. 312 at 7).

The Court agrees with Intuitive. During claim construction, the parties did not dispute the meaning of “mounting formation,” but Dr. Hooper now appears to construe the language, “end effector mounting formation positioned at the working end,” to require that the end effector be mounted in a particular way to the working end. Dr. Hooper’s opinion also limits “end effector mounting formation” to an articulating wrist formation based on the exemplary embodiments and inventor testimony, a practice against which the Federal Circuit has cautioned. *See, e.g., Cont’l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019); *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1347 (Fed. Cir. 2008) (“[A]n inventor understands the invention but may not understand the claims, which are typically drafted by the attorney prosecuting the patent application.”).⁶ Auris’s attempt to introduce claim construction through expert testimony is improper. *Cordis Corp. v. Bos. Sci. Corp.*, 561 F.3d 1319, 1337 (Fed. Cir. 2009). Thus, Dr. Hooper’s opinion that the Monarch does not have an “end effector mounting formation” based on it not having an articulating wrist for mounting end effectors is stricken and excluded because it relies on belated claim construction arguments.

c. surgical end effector”

Intuitive moves to exclude the opinion of Auris’s expert Dr. Hooper that the Monarch platform does not have a “surgical end effector” as claimed by the '906 patent. (D.I. 312 at 4–5). The Court’s construed the term “surgical end effector” in claim 53 of the '906 patent to mean

⁶ The Court finds such restraint appropriate here, as Mr. Cooper showed his lack of familiarity with the patent as drafted. When asked about his understanding of the term “end effector mounting formation,” Mr. Cooper testified, “I would never use those words outside the context of this . . . interview,” and, “I’m not qualified to judge exactly what these words mean.” (D.I. 313-2, Ex. 7 ¶ 96).

“device at the end of an instrument used in surgery designed to interact with the environment,” which is consistent with its construction of the term “end effector” in claim 2 of the ’447 patent. (D.I. 141 at 6–8). As with the term “end effector” in the ’447 patent, Dr. Hooper opined that the “surgical end effector” of claim 53 of the ’906 patent does not include a camera, lights, and the distal end of a working channel, based on exemplary embodiments in the patent specification and on inventor testimony. (D.I. 313-2, Ex. 7 ¶¶ 222–27). For the reasons discussed in relation to the term “end effector mounting formation” in the ’447 patent, Dr. Hooper’s non-infringement opinion offers improper construction of the term “surgical end effector.”

2. Requiring Single User for Direct Infringement

Intuitive moves to exclude Dr. Hooper’s opinion that Intuitive did not show direct infringement because Intuitive’s infringement expert, Dr. Choset, who referred in his opinions to “a user” performing the method steps, did not provide evidence of a single user performing each step of claim 2 of the ’447 patent. (D.I. 312 at 12–13). Direct patent infringement “occurs where all steps of a claimed method are performed by *or attributable to* a single entity.” *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (citation omitted) (emphasis added). Dr. Hooper opined that Dr. Choset failed to show that any one person has performed each of the three steps of claim 2, and “[t]hus, Dr. Choset fails to show that Auris or any user has directly infringed claim 2 of the ’447 patent.” (D.I. 313-2, Ex. 7 ¶111; *see also* Ex. 7 ¶¶ 107-110). To the extent that this implied that direct infringement only occurs when a single user performs all steps of a claimed method, it is stricken and excluded to the extent it relies on an incorrect legal standard of direct infringement. *See Hebert v. Lisle Corp.*, 99 F.3d 1109, 1117 (Fed. Cir. 1996) (“We encourage exercise of the trial court’s gatekeeper authority when parties proffer, through purported experts, not only unproven science, but markedly incorrect law. Incorrect statements of law are no more admissible through ‘experts’ than are falsifiable scientific theories.” (internal citation

omitted)). That, however, does not excuse Intuitive from meeting its burden, whether through Dr. Choset or otherwise, to show that all steps of a claimed method are performed by or attributable to a single entity.

3. Intuitive's Motion to Exclude Opinions of Ms. Dean

Intuitive seeks to strike the opinion of Auris's damages expert Elizabeth Dean regarding a standard royalty rate for estimating a reasonable royalty. (D.I. 312 at 13–15). A patentee may seek a reasonable royalty damage award based on a hypothetical negotiation that “attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.” *Lucent Techs.*, 580 F.3d at 1324 (citing *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970)). To arrive at a damage award based on a hypothetical license under *Georgia-Pacific*, the court can consider a number of factors, including factor twelve, “the portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.” *Georgia-Pacific*, 318 F. Supp. at 1120.

Ms. Dean applied the *Georgia-Pacific* factors in forming her opinions as to a reasonable royalty. When considering standard royalty rates under the twelfth *Georgia-Pacific* factor, Ms. Dean opined that she was “not aware of any portion of the profit or selling price that is customary in the industry to allow for the use of the invention.” (D.I. 313-5, Ex. 24 ¶ 164). Ms. Dean then cited the statements of two executives of Johnson & Johnson, the corporate parent of Auris. (*Id.*; D.I. 63). Jennifer Kozak, Vice President of Business Development at Johnson & Johnson, told Ms. Dean that, “[u]nrelated to the claimed technology of the patents-in-suit” but “based on her 25 years of industry experience, a typical or market royalty for medical technology is between 1% and 5% of revenues, with a non-exclusive license being toward the lower end of

this range.” (D.I. 313-5, Ex. 24 ¶ 164). Frederick Moll, former Chief Executive Officer of Auris and current Chief Development Officer of Johnson & Johnson Medical Device Digital, “explained that the rates of 3% of system net sales and 3% of consumable net sales in the Intuitive–Hansen License were high relative to his experience in the medical device market.” (*Id.* ¶¶ 8, 164). Ms. Dean ultimately concluded that the twelfth *Georgia-Pacific* factor “has minimal impact on the outcome of the hypothetical negotiation” between the parties. (*Id.* ¶ 165).⁷

Intuitive argues that Ms. Dean’s opinion relying on the statements of Ms. Kozak and Mr. Moll should be excluded because a reasonable royalty cannot be based on “unrelated licenses” that are not “linked to the economic demand for the claimed technology.” See *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872–73 (Fed. Cir. 2010). As a general matter, evidence that “fails to tie a reasonable royalty base to the facts of the case at issue” is inadmissible. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011). In *ResQNet.com*, the Federal Circuit considered admissibility of licenses offered in support of the first *Georgia-Pacific* factor, “royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.” *Id.* at 869–70 (citing *Georgia-Pacific*, 318 F. Supp. at 1120). The court found that licenses on marketing and other services related to the patented technology, rather than straight licenses on the patent-in-suit, were not properly considered under the first factor. *Id.* at 870. In contrast, the twelfth *Georgia-Pacific* factor is broader, expressly considering royalty rates that “may be customary in the particular business or *in comparable businesses* to allow for the use of the invention or *analogous inventions*.” *Georgia-Pacific*, 318 F. Supp. at 1120

⁷ Based on Ms. Dean’s disclaimer that she was “not aware” of a customary rate and her conclusion that this factor would have “minimal impact” on the reasonable royalty analysis, the Court doubts Intuitive’s starting premise that Ms. Dean relied on the statements of Ms. Kozak and Mr. Moll to arrive at a standard royalty rate.

(emphases added). Here, Ms. Kozak and Dr. Moll offered statements about typical royalty rates for “medical technology” and in “the medical device market.” Their statements were also informed by Ms. Kozak’s and Dr. Moll’s experiences as executives of Auris’s corporate parent. Given the breadth of the twelfth *Georgia-Pacific* factor, the Court finds the statements sufficiently related to the facts for purposes of assessing a reasonable royalty.

Intuitive also argues that Ms. Dean’s opinion on standard reasonable royalty rates should be excluded because she did not test, such as by surveying royalty rates for medical devices, the accuracy or reliability of the statements of Ms. Kozak and Dr. Moll. (D.I. 312 at 15). This is a criticism of the weight and credibility of Ms. Dean’s opinion rather than of its admissibility. Intuitive has not only deposed Ms. Dean, but also Ms. Kozak and Dr. Moll, and it will have the opportunity to cross-examine the witnesses at trial. The statements of Ms. Kozak and Dr. Moll shall not be grounds for excluding Ms. Dean’s opinion on a standard royalty. *See Kraft Foods Grp. Brands LLC v. TC Heartland, LLC*, 232 F. Supp. 3d 632, 635 (D. Del. 2017) (“[T]he individuals Dr. Cornell relies on have been deposed and will be available to testify at trial. Kraft’s motion is therefore DENIED.” (internal citation omitted)). Thus, Intuitive’s motion to exclude Ms. Dean’s opinion on the twelfth *Georgia-Pacific* factor (D.I. 293) is denied.

B. Auris’ Motions for Summary Judgement

1. The ’276 Patent

The ’276 patent discloses a catheter system with removable vision probe. (’276 patent, 2:56–57). Intuitive asserts that Auris infringes claims 1, 4, 10 and 14 of the ’276 patent. (D.I. 313 at 1). Claim 1 states:

1. A medical system comprising:
 - a catheter having a main lumen and a mechanical system, wherein the mechanical system is connected to control a pose of a steerable distal

tip of the catheter, the pose including a position and orientation of the steerable distal tip of the catheter;

a sensor system coupled to the catheter to generate measurement signals associated with the catheter; and

a control system coupled to the sensor system to receive measurement signals and coupled to the mechanical system to control the catheter, wherein the control system is operable to identify a desired working configuration of the distal tip while an imaging device is deployed in the main lumen for obtaining images and providing the obtained images to an operator interface, wherein the desired working configuration comprises a desired pose of the distal tip of the catheter, the desired pose comprising a desired position and a desired orientation of the distal tip, and the ***control system is further operable*** to receive orientation information about the distal tip from the measurement signals generated by the sensor system when the ***imaging device*** has been removed from the catheter, and ***to hold or return the distal tip of the catheter to the desired working configuration when the imaging device has been removed*** from the catheter and a medical probe is deployed in the main lumen.

(’276 patent, 11:48–12:8 (emphases added)). Claims 4, 10, and 14 depend from claim 1.⁸

a. Whether the Monarch has a “Control System” Operable to “Hold or Return”

Auris seeks summary judgment that it does not infringe the asserted claims of the ’276 patent because the Monarch does not include a “control system” operable to “hold or return” the distal tip of its bronchoscope or sheath, as required by claim 1. (D.I. 304 at 13–18). A patent is directly infringed when a person “without authority makes, uses, offers or sells any patented invention, within the United States . . . during the term of the patent.” 35 U.S.C. § 271(a). To find infringement, the court must first determine the meaning and scope of the asserted patent claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff’d*,

⁸ The parties’ pending motions do not address the additional language of claims 4, 10, and 14 of the ’276 patent. In the interest of brevity, the Court has not reproduced these claims here.

517 U.S. 370 (1996). Second, the trier of fact must determine whether the properly construed claim encompasses the accused structure. *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998).

Literal infringement of a claim requires that every limitation recited in the claim be found in the accused device. *Kahn v. Gen. Motors Corp.*, 135 F.3d 1472, 1477 (Fed. Cir. 1998). If an accused product does not infringe an independent claim, it also does not infringe any claim that depends from the independent claim. *See Wahpeton Canvas Co., Inc. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989). To decide “whether summary judgment resolving the issue of literal infringement is proper, the court considers whether a ‘reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device.’” *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1376 (Fed. Cir. 2005) (quoting *Bai*, 160 F.3d at 1353). “Thus, summary judgment of non-infringement can only be granted if, after viewing the alleged facts in the light most favorable to the non-movant, there is no genuine issue whether the accused device is encompassed by the claims.” *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1304 (Fed. Cir. 1999).

During claim construction of the term “hold or return the distal tip of the catheter to the desired working configuration,” Auris proposed appending the phrase, “in response to measurement signals from sensor system.” (D.I. 141 at 13–14). Auris argued that every embodiment of the ’276 patent described the “hold or return” limitation as occurring in response to measurement signals from a sensor system. The Court viewed those portions of the patent specification as referring to embodiments of the “hold or return” limitation and declined to read that language into the claim. (*Id.*).

Intuitive's expert Dr. Hata opined that the "control system" operable to "hold and return" is satisfied by the Monarch's pause button functionality. (Hata Opening Report ¶ 122). Auris argues that the Monarch's pause button cannot satisfy this limitation because the claimed control system accomplishes the "hold or return" functionality by actuation, whereas the Monarch's pause button merely disables steering of the device. (D.I. 304 at 13–15). The '276 specification and Intuitive's expert testimony, Auris asserts, confirm that the claimed invention "hold[s] or return[s]" by actuation. Auris did not raise this argument during claim construction – although it made a similar unsuccessful argument that the limitation occurred "in response to measurement signals" – and the Court does not adopt this construction now. The claims do not require that the control system "hold or return" through actuation, and thus Auris does not necessarily avoid infringement by not having a control system that functions through actuation.

Auris also argues that the Monarch does not have a "control system" operable to "hold or return" because the Monarch's bronchoscope and sheath can move when a probe is deployed or withdrawn from the bronchoscope's working channel. (*Id.* at 15–18). Auris asserts that the Monarch does not infringe the '276 patent because claim 1 requires a control system operable "to hold," not "to mostly hold, somewhat hold, or kind of hold." (*Id.* at 18). Intuitive argues that whether the Monarch bronchoscope actually moves is a genuine issue of factual dispute because the Monarch was designed to maintain articulation when instruments are removed and deployed in the bronchoscope sheath. (D.I. 349 at 13–16; D.I. 351 ¶¶ 19–20; D.I. 386 ¶¶ 19–20). The Court agrees.

Moreover, even assuming the Monarch bronchoscope moves, as Auris claims, there would be a factual dispute as to whether the control system "hold[s]" the bronchoscope. The Federal Circuit has held that "an accused device that sometimes, but not always, embodies a claim

nonetheless infringes.” *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1333 (Fed. Cir. 2013) (cleaned up). As the Federal Circuit has explained:

[A] patent that claims an automobile configured to operate in third gear would be infringed by an automobile that is configured to operate in first, second, and third gears. The automobile is at all times configured to operate in any one of its possible gears, including the infringing one, even if the automobile is never driven in the infringing gear.

Core Wireless Licensing S.A.R.L. v. Apple Inc., 899 F.3d 1356, 1363 (Fed. Cir. 2018). Analogizing those principles, the Court concludes that the plain and ordinary meaning of the “hold or return” limitation may be met even if the accused system “hold[s]” imperfectly or only some of the time.

There remains a factual dispute whether the Monarch satisfies the “control system” limitation if the Monarch does not “hold” absolutely and does not accomplish the “hold or return” functionality through actuation. A reasonable jury could conclude that the Monarch’s pause button meets the Court’s construction of the “hold or return” limitation. Summary judgment on this issue is therefore improper.

b. Whether the Monarch has a Removable “Imaging Device”

Auris argues that it does not infringe the asserted claims of the ’276 patent under one of Intuitive’s infringement theories because the Monarch’s bronchoscope camera is not a removable “imaging device.” According to Dr. Hata, the “imaging device” of the ’276 patent corresponds to 1) the Monarch’s EBUS probe or, alternatively, to 2) the Monarch’s bronchoscope camera. (Hata Opening Report ¶¶ 118–19).

Auris’s motion for summary judgment addresses only the second of Dr. Hata’s opinions, in which he opined that the Monarch’s bronchoscope camera is “removed from the catheter,” when the distal tip of the bronchoscope is extended distally past the distal tip of the sheath. (*Id.* ¶ 118). Contrary to Dr. Hata’s opinion, Auris argues, extending the bronchoscope camera beyond the tip

of the sheath does not constitute removal from the sheath. (D.I. 304 at 18–22). Auris argues that the '276 specification distinguishes “removed” from “deployed,” and because a camera extended past the distal tip of the Monarch’s sheath is still deployed, it cannot also have been removed. The '276 specification also states that the ability to remove the imaging device allows the catheter to alternately accommodate an imaging device and a medical probe. Thus, Auris asserts, extending the Monarch’s camera beyond the sheath does not constitute removal as contemplated by the patent. Intuitive does not respond substantively to these argument, stating instead that “the Court need only address” the arguments directed to the “control system,” and that Auris’s motion for summary judgment is deficient in that regard. (*See* D.I. 349 at 11–20; D.I. 379 at 7).

The Court agrees that Auris does not infringe the '276 patent based on a theory of the Monarch’s bronchoscope camera as the claimed removable “imaging device.” Although the Court did not construe “removed” in the context of the '276 patent, no reasonable jury could find that a camera on the distal tip of the Monarch bronchoscope is removed from the sheath when it is simply extended past the distal end of the sheath. Thus, Auris’s motion for summary judgment of non-infringement of the '276 patent (D.I. 303) is granted as to the infringement theory wherein the claimed removable “imaging device” is the Monarch’s bronchoscope camera.

2. The '056 Patent

The '056 patent discloses an endoscope with guiding apparatus ('056 patent, 1:66–2:2). Intuitive asserts that Auris’s Monarch infringes claims 3, 14, 17, 22, and 32 of the '056 patent. (D.I. 313 at 1). Claim 3 depends from claim 1, which is not asserted but states:

1. A method of advancing an instrument along an arbitrary path, comprising:
 - selectively steering a distal portion of the instrument to assume a selected shape along an arbitrary path;
 - advancing an elongate guide along the instrument such that a portion of the guide conforms to and assumes the selected shape; and

maintaining a position of the guide while advancing the instrument along the guide such that a proximal portion of the instrument assumes the selected shape defined by the guide, wherein the elongate guide is freely slidable along the length of the instrument such that advancing of the instrument along the guide is unconstrained.

(’056 patent, 17:29–41). Claim 3 states:

3. The method of claim 1 further comprising measuring a depth change of the instrument while advancing the instrument distally.

(’056 patent, 17:48–50). Claim 14 recites:

14. An apparatus for insertion into a body cavity, comprising:

an elongate body having a proximal portion and a selectively steerable distal portion and defining a lumen therebetween, the steerable portion being configured to assume a selected shape along an arbitrary path;

an elongate guide having a proximal section, a distal section, and a length therebetween, the guide being slidably disposed without constraint within the lumen along the length for selectively supporting the body, wherein the guide is configured to conform to and selectively maintain the selected shape assumed by the steerable distal portion, and

wherein the proximal portion of the elongate body when advanced distally is configured to conform to the selected curve maintained by the guide.

(’056 patent, 18:16–32). Claims 17, 22, and 32 depend from claim 14.⁹

Auris seeks summary judgment that it does not infringe the ’056 patent because the Monarch system does not have a “guide” that is “freely slidable” or “slidably disposed” such that its movement is “unconstrained” or “without constraint” relative to an “instrument” or “elongate

⁹ The parties’ pending motions do not address the additional language of claims 17, 22, and 32 of the ’056 patent. In the interest of brevity, the Court has not reproduced these claims here.

body,” as required in some form by all asserted claims.¹⁰ (D.I. 304 at 22–30). The Court construed the terms “freely slidable along the length of the instrument,” in claim 1, and “guide being slidably disposed without constraint within the lumen along the length,” in claim 14, according to their plain and ordinary meaning. (D.I. 141 at 15).

a. Claim 3

Claim 3 depends from claim 1, which recites, “the elongate guide is freely slidable along the length of the instrument such that advancing of the instrument along the guide is unconstrained.” Intuitive asserts that the Monarch’s bronchoscope corresponds to the claimed “guide” and the Monarch’s sheath corresponds to the claimed “instrument.” (D.I. 304 at 25). Auris argues that the Monarch’s bronchoscope does not move “unconstrained” along the sheath because both physical and software constraints inhibit certain movements of the bronchoscope along the sheath. (*Id.* at 25–27). Auris’s expert Dr. Alterovitz opined that the movements of the Monarch’s bronchoscope and sheath are constrained by software such that the distal tip of the Monarch bronchoscope cannot be more than 130 millimeters or less than five millimeters ahead of the distal tip of the sheath. (D.I. 305 ¶¶ 58–62). Auris also argues that the Monarch bronchoscope and sheath are each attached to a handle at their proximal ends, and physical collision of the two handles constrains how far the bronchoscope can advance distally along the sheath. (D.I. 304 at 26–27). Intuitive does not address the “freely slidable” language in claim 3, but simply states without explanation that its arguments related to different language, *i.e.* “slidably disposed” in claim 14, also apply to claim 3.

¹⁰ Auris contends that the “instrument” of claim 1 refers to the “elongate body” of claim 14 of the ’056 patent. (D.I. 304 at 23 n.11). Intuitive disagrees with this position but acknowledges that the disagreement is not material to the dispute. (D.I. 349 at 21 n.4).

The Court agrees with Auris. No reasonable jury could find, in light of these physical and software constraints, that the Monarch “[bronchoscope] is freely slidable along the length of the [sheath] such that advancing of the [sheath] along the [bronchoscope] is unconstrained,” as required by claim 3.

b. Claim 14 and Asserted Dependent Claims

Claim 14 teaches “an elongate body” and an “elongate guide,” “the guide being slidably disposed without constraint within the lumen [of the body] along the length.” In response to Auris’s motion for summary judgment, Intuitive asserts that it is entitled to summary judgment that the Monarch bronchoscope is “slidably disposed without constraint within the lumen” of the Monarch sheath.¹¹ (D.I. 349 at 22–29). Intuitive argues that Auris misreads the claims as a matter of law, and that the ’056 patent do not prohibit external constraints, such as those imposed by software or hardware separate from the guide and body themselves. (*Id.* at 24). Moreover, Intuitive’s expert Dr. Choset opined that the user is instructed to set up the Monarch before every procedure by inserting the distal tip of the bronchoscope into the proximal end of the sheath and advancing the bronchoscope until it is fully inserted into the sheath and the handles at the proximal ends of the sheath and bronchoscope collide with each other, thus demonstrating that the bronchoscope is slidably disposed without constraint from the lumen of the sheath. (D.I. 313, Ex. 14 ¶ 89; D.I. 349-9, Ex. 19 at 130:6–15).

A reasonable jury could interpret the phrase “without constraint” as modified by “within the lumen,” and thus could conclude that the Monarch’s bronchoscope and sheath are “slidably

¹¹ Intuitive asserts that, “[f]or purposes of this motion, Intuitive uses the language of apparatus claim 14; however all arguments except where noted . . . apply equally to method claim 1.” (D.I. 349 at 21 n.4). The Court disagrees. The language of claim 14, “without constraint within the lumen,” is materially different from “unconstrained” in claim 1. For that reason, the Court considers Intuitive’s arguments as to claim 14.

disposed without constraint within the lumen,” despite external constraint from the Monarch’s software and handles. At the very least, Intuitive has demonstrated that a genuine dispute of material fact precludes summary judgment that Auris does not infringe claim 14 of the ’056 patent.

Thus, Auris’s motion for summary judgment of noninfringement of the ’056 patent (D.I. 303) is granted as to claim 3 and denied as to claim 14 and its dependent claims. Intuitive’s request for summary judgment of infringement of claim 14 and its dependent claims (D.I. 349 at 29) is denied.¹²

C. Auris’s Motions for Summary Judgment of Issues Relating to Willful Infringement and Damages

1. Willful Infringement

Subjective willfulness – in other words, “proof that the defendant acted despite a risk of infringement that was ‘either known or so obvious that it should have been known to the accused infringer’” – can support an award of enhanced patent infringement damages under 35 U.S.C. § 284. *WesternGeco L.L.C. v. ION Geophysical Corp.*, 837 F.3d 1358, 1362 (Fed. Cir. 2016) (quoting *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1933 (2016)). “Determination of willfulness is made on consideration of the totality of the circumstances.” *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337, 1342 (Fed. Cir. 2004). A finding of willful infringement requires knowledge of both the patent and of its infringement. *Evonik Degussa GmbH v. Materia, Inc.*, 305 F. Supp. 3d 563, 577 (D. Del. 2018).

Here, in response to Auris’s interrogatory seeking “all bases for Intuitive’s allegation that Auris’s alleged infringement . . . has been willful and deliberate,” Intuitive stated that its willfulness theory was based on Auris’s pre-suit knowledge of the asserted patents. (D.I. 302-1,

¹² Intuitive did not separately move for summary judgment, but instead asserts in its opposition brief that it is entitled to summary judgment of infringement.

Ex. 44 at 7–9). Specifically, Intuitive asserted that Auris knew of the '447 patent as of November 29, 2016, the issue date of Auris's own patent that cites to the '447 patent application and that Auris knew of the other asserted patents as of August 3, 2018, when Intuitive's CEO sent a letter to Auris's then-CEO listing 29 patents that Intuitive believed that Auris infringed. (D.I. 302-1, Ex. 40).

In connection with its motion for summary judgment, Auris contends that Intuitive fails to prove pre-suit willful infringement because Intuitive's willfulness theory is based solely on Auris's pre-suit knowledge of the asserted patents and a conclusory assertion that Auris infringes. (D.I. 301 at 1). The Court agrees that Intuitive has not shown willful infringement or a genuine issue of material fact thereof. Intuitive's theory of willfulness is based solely on pre-suit knowledge of the asserted patents, which is not sufficient to support a finding of willful infringement. *Intellectual Ventures I LLC v. Symantec Corp.*, 234 F. Supp. 3d 601, 611–12 (D. Del. 2017).

Intuitive argues that the question of willful infringement should be left to the jury. (D.I. 348 at 1–2). “Willfulness of behavior is a classic[] jury question of intent . . . [and] the issue should be decided by a jury.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1341 (Fed. Cir. 2016). Here, however, Intuitive has only presented evidence showing Auris's pre-suit knowledge of the asserted patents, which is legally insufficient to show willful infringement.¹³ Thus, based on

¹³ Intuitive's briefing raises new facts allegedly supporting willfulness, including the fact that Auris conducted a freedom-to-operate analysis of Intuitive's patents. (D.I. 348 at 1). Intuitive's failure to disclose this information during discovery precludes Intuitive's use of the information to oppose the motion for summary judgment. *See* FED. R. CIV. P. 37(c)(1). Intuitive's argument as to Auris's freedom-to-operate analysis also fails because Auris's failure to produce an analysis over which it claims attorney–client privilege cannot support an adverse inference of willfulness from the jury. *See Knorr-Bremse*, 383 F.3d at 1341.

Intuitive's evidence and as a matter of law, no reasonable jury could find Auris's alleged pre-suit infringement to be willful.

Auris also argues that Intuitive fails to prove post-suit willful infringement because Intuitive's evidence does not rise above typical "garden variety" infringement. (D.I. 301 at 3). Intuitive argues that Auris's post-suit infringement was willful because Auris neither ceased its conduct nor redesigned its products to avoid infringement. (D.I. 348 at 2). As the Court noted during the July 8, 2021 teleconference, it is difficult to imagine that the Court would enhance damages based on any willfulness the jury might find based on the conduct asserted, but that is a separate inquiry. Thus, Auris' motion is denied to the extent it is based on post-suit willfulness.

IV. CONCLUSION

For the foregoing reasons, Intuitive's motion to exclude and strike opinions and testimony of Auris's experts (D.I. 293), Auris's motion for summary judgment of non-infringement (D.I. 303), and Auris' motion for summary judgment of no willful infringement (D.I. 300) are each GRANTED-IN-PART and DENIED-IN-PART.

An appropriate order follows.