IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
BEAUMONT DIVISION

MARK A. BARRY, MD,	§	
	§	
Plaintiff,	§	**Civil Action No. 1:14-104-RC**
	§	
v.	§	
	§	**Judge Ron Clark**
MEDTRONIC, INC.,	§	
	§	
Defendant.	§	

MEDTRONIC, INC.'S SUPPLEMENTAL MOTION FOR
JUDGMENT AS A MATTER OF LAW AT THE CLOSE OF EVIDENCE

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Medtronic, Inc. ("Medtronic") files this supplemental brief in support of its motion for judgment as a matter of law under Federal Rule of Civil Procedure 50(a) at the close of evidence. Tr. 2295:2-2296:4; Order, Dkt. 420.

I. Dr. Barry Lacks Standing To Bring This Action.

"A court may exercise jurisdiction only if a plaintiff has standing to sue *on the date it files suit*." *Abraxis Bioscience, Inc. v. Navinta LLC*, 625 F.3d 1359, 1364 (Fed. Cir. 2010) (emphasis added). If the plaintiff does not have standing, "the suit *must* be dismissed, and the jurisdictional defect *cannot be cured* after inception of the lawsuit." *Id.* (emphases added). "The party bringing the action bears the burden of establishing that it has standing." *Sicom Sys., Ltd. v. Agilent Techs., Inc.*, 427 F.3d 971, 976 (Fed. Cir. 2005). Dr. Barry failed to meet that burden. In fact, despite representing that he had standing to file the instant action, the testimony at trial conclusively established that Dr. Barry lacked standing to bring this action when it was filed. *See* Dkt. 382; *see also, e.g.*, Tr. 341:2-342:1.

"A party may bring an action for patent infringement only if it is the 'patentee,' *i.e.*, if it owns the patent, either by issuance or by assignment." *Speedplay, Inc. v. Bebop, Inc.*, 211 F.3d 1245, 1249-50 (Fed. Cir. 2000). Constitutional standing exists when a patentee suffers an injury-in-fact as a result of a violation of its statutorily-conferred exclusive patent rights. *See Morrow v. Microsoft Corp.*, 499 F.3d 1332, 1339-41 (Fed. Cir. 2007) (holding that plaintiffs who lack exclusionary rights under a patent do not meet the injury-in-fact requirement for constitutional standing). If a patentee grants an exclusive license to his patents that transfers "all substantial rights" therein, the license is tantamount to an assignment and the exclusive licensee would have "sole standing to sue those suspected of infringing the patents' claims." *Alfred E. Mann Found. for Sci. Research v. Cochlear Corp.*, 604 F.3d 1354, 1359 (Fed. Cir. 2010). A "key factor" in

determining whether a transfer of patent rights should be deemed an assignment or merely a license is "where the right to sue for infringement lies," including whether the licensor has the right to dictate the litigation activities of the licensee. *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1343 (Fed. Cir. 2014), *cert. granted, judgment vacated on other grounds*, 135 S. Ct. 1846 (2015); *see also Keranos, LLC v. Silicon Storage Tech., Inc.*, 797 F.3d 1025, 1032 (Fed. Cir. 2015) (the licensor did not retain the right to sue accused infringers, which "is the most important factor in determining whether an exclusive license transfers sufficient rights to render the licensee the owner of the patent").

Here, Dr. Barry did *not* have standing when he filed this lawsuit in February 2014 because he had granted EBI/Biomet[1] an exclusive worldwide license over seven years earlier. PX 261, §§ 2.1, 7.11. That license gave Biomet the exclusive "right to make, have made, use, offer for sale, sell, lease, export or otherwise dispose of" any products that practiced Dr. Barry's claimed inventions as well as the "right, but not the obligation, to pursue third party infringers." *Id.* §§ 2.1, 7.11(a). Dr. Barry retained a secondary right to pursue infringers *only if* EBI/Biomet "elects not to pursue a suspected infringer." *Id.* § 7.11 (b).

Dr. Barry does not dispute, and, in fact, confirmed at trial that when he filed this action, he had not received notice from Biomet that it had elected not to file suit against Medtronic:

> Q. Let me ask you this: At any point between 2011 and 2014, to your knowledge, did Biomet respond one way or other to your request that they decide whether to enforce your patent against third-party infringers?
>
> A. It is my understanding they – again, a lot of this was through my former patent attorney and the answer is no. I don't – do not.
>
> * * *

[1] Dr. Barry entered an agreement with EBI, L.P. in November 2006. Tr. 271:15-20; PX 261. EBI was a predecessor in interest to Biomet. *See* Tr. 340:14-20; Tr. 1104:16-1105:8.

Q. Okay. And was – did you – at that point, in your mind had you come to the conclusion that Biomet was not going to give you a timely answer one way or another?
A. Yes. That was my understanding.
Q. And was that the basis on which you authorized the lawsuit to be filed?
A. Yes.

Tr. 293:15-21; Tr. 293:25-294:6; *see also* Tr. 340:7-20; Tr. 341:18-342:1. Instead, Biomet only gave Dr. Barry such notification in March 2015 (DEF 267) – i.e., more than a year after Dr. Barry filed his complaint. But, such an after-the-fact election cannot retroactively cure Dr. Barry's lack of standing at the inception of this litigation. *See Abraxis Bioscience*, 625 F.3d at 1364. Accordingly, Dr. Barry lacks standing and this action should be dismissed.

The cases identified by the Court at the October 27, 2016 pretrial conference are distinguishable. First, unlike Dr. Barry, the plaintiff in *Mann Foundation* waited to file suit until ***after*** the licensee indicated that it was not exercising its right to sue. 604 F.3d 1358.

Second, in *Drone Techs., Inc. v. Parrot S.A.*, the defendant challenged the plaintiff's standing on the ground that a co-inventor had not been named on the face of the patent and, therefore, the assignee could not sue infringers without the voluntary joinder of all co-owners. 838 F.3d 1283, 1291-92 (Fed. Cir. 2016). Here, there is no allegedly-omitted co-inventor. Rather, the exclusive rights that Dr. Barry, the sole named inventor, voluntarily granted to EBI/Biomet – for which Dr. Barry has received millions of dollars – divested him of standing. Tr. 282:8-13; *see also, e.g.* PX 278; PX 279; PX 281; PX 284; PX 285; PX 286; PX 287.

Finally, *Aspex Eyewear, Inc. v. Miracle Optics, Inc.*, 434 F.3d 1336 (Fed. Cir. 2006) is also distinguishable. First, unlike the license term in *Aspex* (which was capped at five years), EBI/Biomet's exclusive rights under the license have no expiration (or termination) date; they remain in effect so long as EBI/Biomet continues to produce products covered by a Barry patent.

PX 261, §§ 5.1, 7.1(a). Second, the license in *Aspex* provided the licensee with a definite period of time – 30 days – to enforce the patents, after which the right to sue *automatically* reverted back to the licensor. 434 F.3d at 1338. By contrast, EBI/Biomet negotiated for and received the right to sue any alleged infringers *without any time limitation*, providing it with the "right to indulge infringements indefinitely." *Mann Foundation*, 604 F.3d at 1363.

II. No Reasonable Jury Could Find That Medtronic Induced Infringement Under 35 U.S.C. § 271(b).

At trial, Dr. Barry was required to prove direct infringement by a third party, and that Medtronic knowingly induced those infringing acts, in order to support a finding of inducement. *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2117 (2014). But, based upon the evidence presented at trial, no reasonable factfinder could have concluded that any surgeon used the accused Vertebral Column Manipulation Instrument Set (the "VCM Kit")[2] to directly infringe the asserted claims of the '358 patent or the '121 patent. Likewise, no evidence was presented at trial showing that Medtronic has ever intentionally encouraged surgeons to commit any acts which it knew would infringe the patents-in-suit.

A. The Neal Survey was unreliable and failed to yield evidence of any direct infringer.

Dr. Barry principally relied on the survey conducted by Dr. Neal (the "Neal Survey") as evidence of direct infringement. PX 309. However, as Medtronic explained prior to trial, the

[2] As set forth in Plaintiff's operative infringement contentions and the Joint Pre-Trial Order, the only accused product in the case is the VCM Kit. Dkt. 386 at 3 ¶ 1; Dkt. 87-1 at 3.

survey is wholly unreliable, and should have been excluded under *Daubert.* Dkt. 208.[3] Further, even if reliable, the Neal Survey failed to provide evidence of direct infringement.

First, as even Dr. Neal admitted, the Neal Survey never mentions Medtronic's VCM Kit even though it is the only accused product in this case. *See* Tr. 646:7-647:12; *see also* Tr. 1813:21-1814:6. In fact, Dr. Neal did not know that the VCM Kit was the accused product when he prepared the survey. Tr. 643:4-16. Rather than identifying the accused VCM Kit, the survey included a list of twelve different spinal fixation product lines, including Medtronic's CD Horizon Legacy and CD Horizon Solera Spinal Systems. (Importantly, the accused VCM Kit is *not* part of either the Legacy or Solera system, and these systems can be, and most often are, used without the accused VCM Kit. Tr. 1591:21-1592:6; Tr. 1784:20-24; Tr. 1814:16-23). Thus, the series of steps that Plaintiff's infringement expert, Dr. Walid Yassir, concluded would infringe the '358 patent (PX 309: Category 2 of Question 15) and/or the '121 patent (PX 309: Category 2 and Question 16) could have been performed *without* even using the accused VCM Kit. Tr. 643:17-24. *Cf. Fractus, S.A. v. Samsung*, 2011 WL 7563820, at *1 (E.D. Tex. Apr. 29, 2011) ("Allowing the jury to hear such [survey] evidence not tied to the claimed invention risks compensation for infringement that punishes beyond the reach of the statute.") (internal quotation marks omitted).

In fact, Medtronic's non-infringement expert, Dr. Marco, offered unrebutted testimony that the survey participants could have used Medtronic's tube derotators (which were not accused products or part of the accused VCM Kit) to perform the steps of the Neal Survey. Tr.

[3] Medtronic maintains the objections in its *Daubert* motions and motions in limine, as well as to any evidentiary rulings made against it before and during trial, and reserves the right to renew them in a post-judgment motion for a new trial, if necessary.

1825:7-1826:17. Similarly, the survey respondents could have used Medtronic's SmartLink product, which the Court specifically excluded from this case.[4] Dkt. 378. Thus, the survey did not – and could not – provide evidence that any particular surgeon actually used the VCM Kit, let alone that any surgeon did so to infringe either of the patents-in-suit.

Second, the survey was unscientific and unreliable. Dr. Neal claimed that he relied on Dr. Barry, Dr. Barry's counsel and Dr. Yassir for most aspects of the survey due to his lack of expertise in the medical field and the relevant technology. Tr. 559:8-12; Tr. 559:22-560:15. Dr. Neal testified that it was "critical" that the survey be unbiased and random in order to be scientific and reliable, yet he conceded that the entire survey was infected by the participation of biased parties. Tr. 620:8-622:21. For example, Dr. Barry's counsel handpicked the survey respondents while Dr. Barry himself wrote the survey questions. Tr. 620:14-621:7; Tr. 629:23-630:5; Tr. 632:20-633:7. Dr. Neal did not know how Dr. Barry's counsel searched for email addresses for the proposed survey respondents, did not check whether other respondents could have been included, and did not contact any surgeon who allegedly practiced the asserted patent claims. Tr. 629:23-634:1. To the extent Dr. Neal claims to have relied on Dr. Yassir, he never actually spoke to Dr. Yassir and was not even sure what (if any) input Dr. Yassir actually provided. Tr. 559:22-24; Tr. 622:12-21. Accordingly, the survey and Dr. Neal's related testimony cannot support a rational jury verdict. *See, e.g.*, *Brooke Group Ltd. v. Brown &*

[4] Medtronic acknowledges that it agreed at the March 22, 2016 Evidentiary Hearing that it would "not us[e] SmartLink for any purpose in this trial, for damages or otherwise," (Mar. 22, 2016 Hearing Tr., at 79:23-24), in response to the Court's concern that Medtronic might rely on the SmartLink product in support of its damages theory while withholding discovery on it (*id.* at 75:22-76:4, 77:4-13). However, the fact remains that the survey questions and testimony from Dr. Yassir improperly categorized surgeries as infringing where a non-accused product (such as the SmartLink product) was used. The survey cannot support a finding of infringement on that basis. *See, e.g., Fractus*, 2011 WL 7563820, at *1.

Williamson Tobacco Corp., 509 U.S. 209, 242 (1993) ("When an expert opinion is not supported by sufficient facts to validate it in the eyes of the law, or when indisputable record facts contradict or otherwise render the opinion unreasonable, it cannot support a jury's verdict.").

Third, the survey did not include all of the claim limitations. *See Seal-Flex, Inc. v. Athletic Track & Court Const.,* 172 F.3d 836, 842 (Fed. Cir. 1999). Specifically, the Neal Survey failed to ask the respondents whether they used any "handle means," let alone the two separate handle means required by each asserted claim or whether the derotators were "mechanically linked" to "handle means." Similarly, although the '121 patent requires "three or more pedicle screw engagement members" on each side of the spine, the survey only asked if the surgeons used "6 or more derotators" (regardless of how many were on each side). *See generally* PX 1, PX 2; Tr. 1815:19-1816:8; Tr. 1816:13-19; Tr. 1817:1-22. As Dr. Marco testified, the VCM Kit could be assembled with 2 derotators on one side of the spine and 4 on the other, which would meet the Neal Survey requirements, but not the '121 patent claim limitations. Tr. 1818:2-1819:12.

B. Plaintiff failed to demonstrate that Dr. Lenke directly infringed the Barry patents.

Dr. Yassir also testified that a 2012 presentation by Dr. Lenke was evidence of direct infringement. Tr. 831:24-832:17. However, this testimony was plainly deficient. For direct infringement to occur the infringement must have taken place *after* the issuance of the asserted patent(s). Here, there was no evidence indicating *when* Dr. Lenke performed the surgeries depicted in the 2012 presentation – which obviously predates the issuance of the '121 patent. Dr. Yassir's further testimony regarding Dr. Lenke's alleged direct infringement depended on documents that either pre-date the issuance of Dr. Barry's patents or that involve undated

surgeries. Tr. 895:19-23; Tr. 896:9-22; Tr. 996:25-997:5; Tr. 998:6-17; Tr. 999:1-9; Tr. 1004:10-23.

C. Plaintiff's remaining evidence of direct infringement was insufficient.

The asserted claims each require a "first handle means" *and* a "second handle means," yet Dr. Yassir testified that a *single* handle means could meet both of these limitations for purposes of infringement. *See, e.g.*, Tr. 821:13-16; Tr. 962:20-963:3; Tr. 964:19-24; Tr. 967:1-4; Tr. 1026:14-1027:1. This is plainly contrary to the legal requirement that separately listed elements "are 'distinct component[s]' of the patented invention." *Becton, Dickinson and Co. v. Tyco Healthcare Grp, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)); *see also Regents of Univ. of Minn. v. AGA Med. Corp.*, 717 F.3d 929, 934-939 (Fed. Cir. 2013) (affirming that claim reciting "first and second occluding disks" required separate disks); *3M Innovative Prop. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (determining that "first . . . pattern" and "second . . . pattern" refer to different patterns). Dr. Yassir's testimony that surgeons using the VCM Kit with a "single handle means" would infringe is legally incorrect and cannot support a finding of infringement, thus, rendering the jury verdict unsustainable.

Moreover, Dr. Barry failed to establish direct infringement of the asserted system claims of the '121 patent. There was no evidence presented at trial showing that the accused VCM Kit was ever assembled by a surgeon **after** issuance of the '121 patent (in 2013) with (a) two pedicle screw cluster derotation tools, **each** of which has a "group of three or more pedicle screw engagement members which are mechanically linked with . . . handle means"; (b) three or more "pedicle screw engagement member[s]" that are each linked to their own handle means (i.e. "said first handle means having a handle linked to each pedicle screw engagement member of the first

group of three or more pedicle screw engagement members"); and (c) "a linking member" that linked all of the handles on each side of the spine. PX 2 at 8:5-7 (Claim 2); PX 2 at 8:5-45.

D. Plaintiff failed to adduce evidence of inducement.

Dr. Barry has also failed to identify any actions taken by Medtronic sufficient to prove that it induced anyone to infringe either of the patents-in-suit. *See Takeda Pharms. U.S.A., Inc. v. West-Ward Pharm. Corp.*, 785 F.3d 625, 630-32 (Fed. Cir. 2015). For example, the Neal Survey fails to demonstrate that Medtronic has induced anyone to infringe the patents-in-suit. Although the survey asked responders "*if* [they] have received any information or training (formal or informal) regarding derotation of multiple vertebrae using linked derotators from [Medtronic]," it did not specify *when* the respondents received such information or training, *how many* derotators were linked during the alleged training, how the derotators were linked in the alleged training, or whether the training even related to the VCM Kit. PX 309, Question 19.[5] And, as the Court explained in its Jury Instruction on induced infringement, Medtronic can only be liable for induced infringement if Dr. Barry proves by a preponderance of the evidence that, *inter alia*, "Medtronic took action *during the time the asserted patent or patents were in force* intending to cause the infringing acts by those using the accused products." Court's Jury Instructions, Dkt. 414, p. 17, ¶ 2 (emphasis added). Because Question 19 of the Neal Survey did not ask *when* the respondents received information or training from Medtronic and because the VCM Kit launched in 2006 (Tr. 323:6-13), long before the asserted patents issued in 2010 and 2013, the survey cannot support a finding of inducement. PX 001; PX 002.

[5] The survey also did not ask whether any surgeons actually performed a surgery consistent with this training, or whether the training materials described performance of each and every limitation of the claims. PX 313.

In addition to the survey's failure with respect to inducement, there is insufficient evidence that Medtronic actively encouraged infringement with knowledge of the patent and that surgeons' acts constituted infringement. The scattered Medtronic materials that Dr. Barry relies upon are plainly insufficient because they were prepared long before Dr. Barry's patents actually issued. Dr. Barry also contends that Dr. Lenke taught others how to use the VCM Kit in an infringing manner, but he failed to demonstrate that Dr. Lenke's actions are attributable to Medtronic. Tr. 1029:22-1030:7. Furthermore, there is no evidence that anyone Dr. Lenke allegedly taught subsequently performed an infringing surgery. *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 1351 (Fed. Cir. 2001) ("Inducement only occurs if the party being induced directly infringes the patent."). The absence of evidence that anyone carried out Dr. Lenke's teachings is fatal to Barry's assertion of induced infringement.

And, no reasonable factfinder could have found that Medtronic has ever had the specific intent required for inducement – i.e., knowledge that the allegedly "'induced acts constitute patent infringement.'" *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015) (quoting *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 766 (2011)). Merely learning of the patents-in-suit does not demonstrate the requisite knowledge (or willful blindness) as to infringement, particularly because Medtronic has substantial non-infringement arguments and because it is undisputed that the VCM Kit has many non-infringing uses and was developed and launched years before the patents-in-suit issued. *See, e.g.*, Tr. 991:12-20; Tr. 992:3-8.

III. No Reasonable Jury Could Find Inducement Under 35 U.S.C. § 271(f)(1).

The evidence of inducement under § 271(f)(1) is plainly insufficient to support a finding of liability. *First*, there is no evidence from which a reasonable jury could find that Medtronic "supplied" from the United States all or a substantial portion of the components of the alleged

invention claimed in the '121 patent to anyone abroad at any time, and particularly during the relevant damages period (i.e., after the filing of the lawsuit in February 2014). *See* 35 U.S.C. § 271(f)(1). In addition to admitting that he had not "seen *any* documents that expressly indicated or showed that Medtronic was shipping VCM kits outside the United States," Dr. Yassir conceded that he had "*no evidence* that Medtronic is shipping the VCM kit overseas." Tr. 1040:4-7; Tr. 1040:13-15 (emphasis added). Dr. Barry's damages expert, Ms. Schenk, also conceded that she had not seen any evidence that Medtronic had shipped any VCM Kits overseas. Tr. 1292:2-5.[6] Rather than introducing any evidence of foreign VCM shipments, Dr. Barry relied upon a 2009 email exchange between Medtronic employees in which foreign doctors are discussed. PX 622. But, this email does not mention a single overseas shipment of a VCM Kit or any surgeon using the VCM Kit in an allegedly infringing surgery. Moreover, the email predates the issuance of the '121 patent by *four years* and the relevant damages period by half a decade. *See, e.g.*, Tr. 1038:4-20. Indeed, Dr. Barry's own expert conceded that the 2009 emails "can't talk about what surgeons are doing in 2013." Tr. 1038:18-20. Plaintiff was apprised of this deficiency in his proof when Medtronic moved for judgment as a matter of law at the close of Dr. Barry's case in chief, but failed to remedy it. Tr. 1615:24-1615:23.

Second, there is no evidence of foreign infringement or the assembly of components shipped from the United States, by anyone, in an allegedly infringing configuration. The Neal Survey was specifically limited to domestic respondents and did not even require the use of the VCM Kit. Tr. 575:8-14; Tr. 643:17-24; *see also supra* p. 5. Dr. Barry did not identify a single

[6] As explained further below, the lack of evidence about whether Medtronic even shipped VCM components abroad also renders it impossible to quantify the extent of any alleged foreign infringement. *See infra* pp. 23-25.

foreign customer of Medtronic or user of the VCM Kit, let alone come forward with even a shred of evidence from which a reasonable jury could find liability under § 271(f)(1).

Third, there is no evidence from which a reasonable factfinder could conclude that Medtronic "actively induce[d]" anyone abroad to assemble components shipped from the United States in a manner that would infringe the '121 patent if those components were combined in the United States. *See* 35 U.S.C. § 271(f)(1). For example, with respect to domestic infringement, Dr. Barry relied upon various instructions and guides related to the VCM Kit (although none of them show infringement of the '121 patent), *see, e.g.,* Tr. 782:10-785:16; Tr. 807:18-808:6, but Dr. Barry has provided no evidence that those, or any other, instructions or guides were ever provided to doctors abroad.[7]

Finally, Dr. Barry has failed to show the specific intent required for active inducement under § 271(f)(1); namely, that Medtronic knew that third parties would assemble the patented invention abroad "in a manner that would infringe the patent if such combination occurred within the United States." *See* 35 U.S.C. § 271(f)(1); *Commil*, 135 S. Ct. at 1926-28; *Promega Corp. v. Life Techs. Corp.*, 773 F.3d 1338, 1356 (Fed. Cir. 2014) (referring to the "necessary knowledge and intent" to infringe under § 271(f)(1)), *cert. granted on other grounds*, 136 S. Ct. 2505 (2016). As with inducement under § 271(b), merely learning of a patent does not demonstrate the requisite knowledge (or willful blindness) as to infringement under § 271(f)(1), particularly given that Medtronic has substantial non-infringement arguments and that the VCM Kit has many non-infringing uses. *See Commil*, 135 S. Ct. at 1926-28.

[7] Medtronic maintains its position that these documents could not support the jury's finding of inducement under § 271(b). *See supra* pp. 9-10.

IV. No Reasonable Jury Could Find Willful Infringement.

Dr. Barry has failed to present sufficient evidence to prove willful infringement by Medtronic. First, as demonstrated above, Dr. Barry has failed to prove infringement under § 271(b) or § 271(f)(1). Second, Dr. Barry's patents are invalid. *See infra* Part V. Third, even if Medtronic were found to induce infringement of a valid patent claim under § 271(b) or § 271(f)(1), Dr. Barry has failed to establish that Medtronic did so in a subjectively willful manner. *See WesternGeco L.L.C. v. ION Geophysical Corp.*, 837 F.3d 1358, 1362-63 (Fed. Cir. 2016); *see generally Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016).

In short, Dr. Barry has failed to show that this is an "egregious case[] of misconduct beyond typical infringement." *Halo*, 136 S. Ct. at 1935. Rather than providing evidence that Medtronic acted in "wanton disregard" of his patents, Dkt. 414 at 19, the record demonstrates that Medtronic had little, if any, awareness of Dr. Barry's patents. Moreover, Medtronic had strong reasons to believe that the patents-in-suit were invalid, *see infra* Pt. V, which remains a defense to allegations of willfulness.

V. The Evidence Compels Judgment Of Invalidity.

The evidence presented at trial conclusively demonstrates that the asserted claims of the '358 and '121 patents are invalid on multiple, independent grounds, each of which is individually sufficient to render the claims invalid.

A. The asserted claims of the '358 patent are invalid under 35 U.S.C. § 102(b).

Under 35 U.S.C. § 102(b), "[a] person shall be entitled to a patent unless . . . the invention was . . . in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." As this Court has previously explained, "[a]n invention is in public use if it is 'shown to or used by an individual under no limitation,

restriction, or obligation of confidentiality.'" *Iovate Health Scis., Inc. v. Bio-Engineering Supplements & Nutrition, Inc.*, 2008 WL 7842052, at *2 (E.D. Tex. Aug. 27, 2008) (Clark, J.) (quoting *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262, 1267 (Fed. Cir. 2008)). As the Court previously held in this case, "'[p]erforming the steps of the patented method for a commercial purpose is clearly an attempt to profit from the commercial use of an invention' that 'constitutes a sale under § 102(b).'" Dkt. 307 at 11 (quoting *Plumtree Software, Inc. v. Datamize, LLC*, 473 F.3d 1152, 1163 (Fed. Cir. 2006)).

1. The claims are invalid because of Dr. Barry's prior public use.

Claims 4 and 5 of the '358 patent are invalid under 35 U.S.C. § 102(b) because Dr. Barry publicly used the claimed methods in at least 3 surgeries that each took place before the December 30, 2003 critical date.[8] Specifically, Dr. Barry admitted to performing surgeries on August 4, August 5 and October 14, 2003 that each included all of the limitations of the asserted claims of the '358 patent. *See, e.g.*, Tr. at 190:3-6; Tr. 193:11-194:1; Tr. 195:2-19; Tr. 203:19-205:4; Tr. 425:12-22. Because each of these surgeries was conducted in front of numerous medical personnel as well as third party medical device company representatives – none of whom were bound by any confidentiality restrictions or obligations as to the surgical methods

[8] As evidenced by the plain language of the claims, none of the asserted claims of the '358 patent require linked handles. *See* Tr. 412:1-24; Tr. 949:9-22; *see also* Tr. 946:7-18. Further, despite having never argued for any such construction at the *Markman* hearing – and actually arguing for and obtaining constructions of "handle means" and "mechanically linked" which do not require linked handles – Plaintiff focused his presentation at trial on linking derotators or linking derotator handles (*see, e.g.*, Tr. 156-171; Tr. 346:19-348:9; Tr. 394:7-23 (Dr. Barry testifying about **linkage** when asked about conception of his **invention**); Tr. 413:21-25; Tr. 425:12-18; Tr. 438:4-10; Tr. 445:22-447:7; Tr. 940:7-945:8), and repeatedly asserted and argued to the jury that the '358 patent claims required this feature. Tr. 2085:21-2086:9; Tr. 2087:23-2088:13; Tr. 2090:22-2091:7; Tr. 2096:14-20; Tr. 2097:5-9. For this reason, the jury verdict on invalidity cannot stand as a matter of law.

and instrumentation that they observed – each surgery constitutes an invalidating public use under 35 U.S.C. § 102(b). In fact, Dr. Barry conceded at trial that there were no restrictions on anyone with respect to publishing about the methods and tools employed in these prior art surgeries. Tr. 397:12-21. Indeed, Dr. Barry published and presented his surgical methods and results in an IMAST Abstract submitted in February 2004 in connection with the IMAST conference. Tr. 197:10-198:7; Tr. 198:21-200:4; Tr. 202:8-203:3; PX 21.

Claims 4 and 5 are also invalid because Dr. Barry disclosed his alleged invention to multiple third parties (including DePuy, SpineVision[9] and EBI/Biomet) for commercial purposes without any confidentiality agreements, restrictions or obligations in place. In fact, Dr. Barry conceded at trial that he had no written or oral confidentiality or non-disclosure agreements with any of the medical device companies with whom he discussed his invention despite the fact that he was marketing an idea of "value." Tr. 325:21-25; Tr. 437:14-21. The representatives for those companies, including Mr. Robert Pfefferkorn (of DePuy) and Mr. Stephan Bette (of SpineVision) – and their documents – likewise confirmed the absence of any such agreements. *See, e.g.,* Tr. 325:21-25; Tr. 402:13-403:19; Tr. 434:22-435:9; Tr. 509:24-510:13; Tr. 511:7-12; Tr. 515:4-516:8; Tr. 553:2-11; Tr. 679:10-681:9; Tr. 687:15-21; Tr. 1728:20-25; Tr. 1731:7-10; Tr. 1741:23-1742:9; Tr. 1744:13-15. These disclosures by Dr. Barry, without the benefit of any confidentiality agreements, invalidate the asserted claims under § 102(b). *See Pronova Biopharma Norge AS v. Teva Pharm. USA, Inc.*, 549 F. App'x 934, 943 (Fed. Cir. 2013) ("Once

[9] Not only did Dr. Barry disclose his alleged invention to these third parties, but SpineVision disclosed it to another third party, Osteotech, without even including Dr. Barry on the communication. DEF 139; DEF 428; Tr. 1745:19-1749:4.

the formulation was disclosed in full to Skrinska, without any restriction on its use, it had been released into the 'public domain' for purposes of § 102(b).").

2. Dr. Barry's commercial exploitation of the claimed subject matter invalidates the claims under the on-sale bar.

The trial record is clear and uncontroverted that Dr. Barry and the medical device companies who supplied his surgical devices, profited from and received their normal compensation in connection with each prior art surgery. Tr. 430:11-14; Tr. 688:11-24; Tr. 1729:19-1730:10. The testimony was also clear and uncontroverted that third party sales representatives who attended Dr. Barry's surgeries did so in "doing business" with him. *Id.*; *see also* Tr. 671:10-14; Tr. 674:20-675:4; Tr. 677:10-15; 685:2-24; Tr. 1721:1-4; Tr. 1724:15-17; Tr. 1742:23-1743:18. Thus, each of these surgeries, separately and independently, constituted an invalidating sale under 35 U.S.C. § 102(b). *Plumtree*, 473 F.3d at 1163; Dkt. 307 at 11.

In addition to performing the prior art surgeries for compensation, Dr. Barry also offered for sale the alleged inventions of the asserted claims of the '358 patent on multiple occasions before the critical date, including to DePuy, SpineVision and EBI/Biomet. For example, Dr. Barry and Mr. Pfefferkorn, a DePuy sales representative who worked with Dr. Barry, each admitted that they met with business representatives of DePuy in July 2003 to discuss the sale and/or licensing of Dr. Barry's alleged invention. *See, e.g.*, Tr. 435:23-436:1; Tr. 671:10-14; Tr. 674:20-675:4; Tr. 677:10-15. Dr. Barry also began working with SpineVision in 2002 or 2003 for the commercial purpose of SpineVision becoming Dr. Barry's vendor/supplier. Tr. 1742:16-1743:14. Finally, Richard Cuellar, who became Dr. Barry's EBI/Biomet sales representative, testified that he began working with Dr. Barry in 2003, observed Dr. Barry's claimed surgical method, and that by mid-2003, EBI/Biomet had "done over $600,000 in business" with Dr. Barry

and another surgeon. PX 495; Tr. 1721:1-4; Tr. 1724:15-17; Tr. 1729:1-1730:10. In short, the claimed methods were offered for sale before the December 30, 2003 critical date, invalidating the claims under § 102(b). *See Am. Seating*, 514 F.3d at 1267 ("The test for whether an invention is ineligible for a patent due to the section 102(b) public use bar is whether the purported use: (1) was accessible to the public; or (2) was commercially exploited.").

3. Dr. Barry failed to show that his prior public uses, sales and offers for sale were experimental.

Dr. Barry did not present evidence sufficient to demonstrate that the above prior public uses, sales, and offers for sale were experimental. *See Paragon Podiatry Lab., Inc. v. KLM Labs., Inc.*, 984 F.2d 1182, 1186 (Fed. Cir. 1993); *Petrolite Corp. v. Baker Hughes Inc.*, 96 F.3d 1423, 1427-28 (Fed. Cir. 1996); *Sinskey v. Pharmacia Ophthalmics, Inc.*, 982 F.2d 494, 498-99 (Fed. Cir. 1992), *abrogated on other grounds by Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55 (1998); *see also* MPEP § 2133.03(e)(2). Indeed, the evidence at trial was that Dr. Barry never told his patients, their guardians, or anyone else (including the members of his surgical staff) that the surgical method he performed at least 19 times before the critical date was in any way "experimental."[10] He also kept no records of any such alleged experiments. Tr. 368:8-22.

Moreover, Dr. Barry's testimony that these surgeries were experimental is contradicted by the other sworn testimony cited above concerning the admitted commercial exploitation and commercial purpose of each and every one of the prior art surgeries. Tr. 435:23-436:1; Tr.

[10] While Medtronic maintains that Dr. Barry has failed to make out a case for experimental use based on the testimony in his case-in-chief, Medtronic maintains its objection to the Court's exclusion of evidence relating to Dr. Barry's purported experimental use defense, including during cross-examination of Dr. Barry at trial. Medtronic has preserved this objection via its offer of proof made pursuant to Rule 103 of the Federal Rules of Evidence, Dkt. 425, and reserves the right to reassert it in a post-judgment motion for new trial, if necessary.

671:10-14; Tr. 674:20-675:4; Tr. 677:10-15; Tr. 1721:1-4; Tr. 1724:15-17; Tr. 1729:1-1730:10; Tr. 1742:16-1743:14. Again, Mr. Cuellar testified that EBI/Biomet began "doing business" with Dr. Barry in 2003, observed Dr. Barry's claimed surgical method, had "done over $600,000 in business" with Dr. Barry and another surgeon by mid-2003, and that all of that "business" was realized through the surgeries in question. PX 495; Tr. 1729:1-1730:10. The trial testimony of DePuy sales representative Mr. Pfefferkorn and Mr. Bette of SpineVision confirmed the commercial nature of the surgeries themselves and Dr. Barry's related activities. Tr. 685:2-24; Tr. 1742:23-1743:18. As addressed above, Dr. Barry also disclosed and offered for license/sale the alleged inventions of claims 4 and 5 on *multiple* occasions, including to DePuy, SpineVision and EBI/Biomet, before the critical date. *See supra* pp. 16-17. Based on Dr. Barry's commercial exploitations of the alleged invention before the critical date, Dr. Barry's activities were not experimental and, thus, invalidate the claims under § 102(b). *See Am. Seating*, 514 F.3d at 1267.

The surgeries were not "experimental" for the additional reason that Dr. Barry was able to determine that the alleged invention of the '358 patent worked for its intended purpose (as claimed) – namely, the amelioration of an aberrant spine condition – immediately following each pre-critical date surgery. Tr. 420:12-421:15; Tr. 423:15-427:10; Tr. 959:18-960:8; Tr. 1759:9-14; Tr. 1906:10-15; PX 21. Because Dr. Barry could determine whether his alleged invention worked for its intended purpose at the time he performed each of these surgeries, each surgery constituted a reduction to practice. *See Streck, Inc. v. Research & Diagnostic Sys., Inc.*, 659 F.3d 1186, 1195 (Fed. Cir. 2011). And, because an "experimental use cannot occur after a reduction to practice," Dr. Barry's experimental use defense must fail. *In re Cygnus Telecomms. Tech., LLC Patent Litig.*, 536 F.3d 1343, 1356 (Fed. Cir. 2008). Accordingly, the narrow experimental use exception is not applicable and the '358 patent claims are invalid under 35 U.S.C. § 102(b).

B. The asserted claims of the '121 patent are invalid.

The trial evidence also demonstrates that the asserted claims of the '121 patent are invalid. Specifically, Dr. Barry testified for the first time at trial that he was unable to link the derotator handles until he introduced slots into the handle. *See, e.g.*, Tr. 187:4-11; Tr. 378:14-15; Tr. 190:19-191:2. However, slots are never mentioned or discussed in the specification of the patents-in-suit. The only place where the slots are even arguably shown in the '121 patent is in Figure 7, which was introduced into the specification in the continuation-in-part application filed on August 10, 2005. *See* PX005 at PX005.017. Because the claims of the '121 patent require linking of the handles and because Dr. Barry testified that he could *only* link handles by using slots, the claims of the '121 patent cannot claim priority before August 10, 2005. *See Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997) ("Entitlement to a filing date does not extend to subject matter which is not disclosed. . . . [A] prior application itself must describe an invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought."). Thus, the critical date for the '121 patent is August 10, 2004. This development at trial is particularly important because Dr. Barry also testified that the notes from his non-confidential discussion with EBI/Biomet in February 2004 confirm his conception of the alleged invention of the '121 patent, including the claimed cross-linking member. Tr. 221:6-14; Tr. 456:18-458:11. As such, Dr. Barry invalidated the claims of the asserted claims of the '121 patent through this disclosure to Biomet with no confidentiality restrictions in place, made more than five months before the August 10, 2004 critical date. *See, e.g.*, Tr. 221:10-14; *see also* Tr. 435:23-436:1; Tr. 677:10-15.

C. All of the asserted claims are invalid because Dr. Lenke was the first to invent the claimed inventions.

The evidence at trial established that Dr. Lenke – not Dr. Barry – was the first to invent the alleged inventions of both the '358 and '121 patents, rendering all of the asserted claims invalid under pre-AIA 35 U.S.C. § 102(g). Specifically, Dr. Lenke conceived of and reduced the claimed inventions to practice well before Dr. Barry. *See Teva Pharm. Indus. Ltd. v. AztraZeneca Pharm., LP*, 661 F.3d 1378, 1383 (Fed. Cir. 2011). Alternatively, Dr. Lenke conceived of the claimed inventions before Dr. Barry and exercised reasonable diligence in reducing the inventions to practice. *See id.* at 1383. There is no evidence that Dr. Lenke's invention was abandoned, suppressed, or concealed; indeed, to the contrary, the testimony revealed that Dr. Lenke consistently developed his techniques and made numerous presentations of his techniques to other spinal surgeons up until he filed for a patent on his invention in February 2006. *See, e.g.*, DEF 4; DEF 44; DEF 45; DEF 181-185; DEF 189; DEF 197; DEF 199-201; DEF 209-212; DEF 214; DEF 216; DEF 218; DEF 219; DEF 222-225; DEF 227-229; DEF 233; DEF 239; DEF 241; DEF 247; DEF 248; DEF 306; DEF 459-461; DEF 463; DEF 465; DEF 467.

According to Dr. Barry, he conceived of the invention of the '358 patent in March 2003 and reduced it to practice in January 2004. Tr. 382:9-14; Tr. 196:19-25. Importantly, Dr. Barry testified at trial that Dr. Lenke had been performing derotation surgeries using multiple derotators in 2002. Tr. 347:6-348:9. Assuming the Court concludes that the '358 patent claims do not require linked handles as Dr. Barry argued to the jury (see *supra* n.7), Dr. Lenke's surgical video (DEF 233) (distributed on DVD and used in presentations at the time) and corresponding testimony from Dr. Lenke who performed the surgery and Mr. Meyer who videotaped it in June 2002, confirm that the surgical method claimed by the '358 patent was

conceived of and successfully performed by Dr. Lenke in June 2002, long before Dr. Barry subsequently conceived of it. Tr. 1462:11-1470:17; Tr. 1470:23-1471:7; Tr. 1646:10-1648:19.

If, however, the Court disagrees and finds that the '358 patent claims require linked handles as a matter of law, the Lenke video shows all of the other elements of the '358 patent claims, as explained by the unrebutted testimony of Dr. Lenke and Mr. Meyer. DEF 233; Tr. 1462:11-1470:17; Tr. 1646:10-1648:19. The rest of the unchallenged evidence presented at trial establishes that Dr. Lenke had also conceived of linked handles in April 2002 and reduced this concept to practice in a surgery in August 2002. Tr. 1660:14-18 (discussing DEF 459); Tr. 1666:6-13 (discussing DEF 210, DEF 211). Moreover, in stark contrast to Dr. Barry who presented virtually no corroboration for his assertions of conception and reduction to practice (other than three receipts from a machine shop), Dr. Lenke's conception and reduction to practice of the linked handles claim element is corroborated by the testimony of several other witnesses, as well as by an extensive collection of contemporaneous documents such as status reports, CAD drawings, project notes and memos, and correspondence:

- Dr. Lenke first conceived of "linked handles" for use in spinal derotation surgery in April 2002. *See, e.g.*, Tr. 1519:25-1521:4 (Johnson); Tr. 1422:19-1423:12 (Armstrong) (discussing Defendant's Exhibit 459, the April 11, 2002 Lenke Status Report); Tr. 1657:24-1660:18 (same); Tr. 1677:21-1678:13 (same); Tr. 1423:13-1424:8 (discussing Defendant's Exhibit 460); Tr. 1399:24-1400:21 (Armstrong) Tr. 1425:8-16; Tr. 1412:11-1414:17 (discussing Defendant's Exhibit 438); Tr. 1414:19-1416:12 (discussing Defendant's Exhibit 368); *see also* Tr. 1511:24-1512:5.

- Dr. Lenke first reduced the concept to practice in August 2002. *See, e.g.*, Tr. 1430:16-1433:8 (discussing Defendant's Exhibit 207); Tr. 1660:19-1663:1 (same); Tr. 1424:12-17 (discussing Defendant's Exhibit 463, the June 7, 2002 Lenke Status Report); Tr. 1664:12-1666:13 (discussing Defendant's Exhibit 211); *see also* Tr. 1462:11-13.

Similarly, Dr. Barry testified that he conceived of the invention of the '121 patent in late 2003 and reduced it to practice in November 2004, again with little to no corroborating evidence other than his own testimony. Tr. 210:6-211:18; Tr. 223:18-224:22. Plaintiff's expert, Dr. Yassir, testified that the difference between the '121 patent and the '358 patent was the addition of the cross-linking member (as well as the requirement of three or more pedicle screw engagement members). Tr. 837:11-25. However, the unrebutted evidence presented at trial established that Dr. Lenke had conceived of the cross-linking member by June 2002 and reduced it to practice in February 2003. Tr. 1462:11-13; Tr. 1462:23-1463:6; 1476:18-1477:10; Tr. 1482:16-25; 1484:1-1485:13; Tr. 1491:17-1492:5; 1675:19-1677:20. Again, unlike Dr. Barry, Dr. Lenke's conception and reduction to practice dates were corroborated by testimony of other witnesses, as well as by a collection of contemporaneous documentation:

- Dr. Lenke first conceived of the cross-connector/triangulation in June 2002. *See, e.g.*, Tr. 1426:8-13 (discussing Defendant's Exhibit 463, the June 7, 2002 Lenke Statue Report); *see also* Tr. 1525:7-1526:11; Tr. 1526:25-1529:12 (Johnson); Tr. 1427:13-1428:6 (Armstrong); *see also* Tr. 1512:6-8.[11]

- Dr. Lenke first reduced the concept to practice in February 2003. *See, e.g.*, Tr. 1491:24-1492:5 (discussing Defendant's Exhibit 226); Tr. 1676:18-1677:20 (same); Tr. 1674:12-1675:18 (discussing Defendant's Exhibit 464); Tr. 1475:10-1477:10 (Meyer); Tr. 1479:5-1486:18 (discussing Defendant's Exhibits 180, 219, 226).

In his rebuttal case, Plaintiff did not dispute Dr. Lenke's dates of conception or reduction to practice. In fact, Dr. Yassir, who also served as Plaintiff's invalidity expert, was not even questioned about Dr. Lenke's invention timeline on direct examination. During cross-

[11] Dr. Lenke's contemporaneous written report not only further confirms his conception of cross-connecting derotators at the same level of the spine as well as connecting them on both the concavity and convexity, but also demonstrates that he brought that conception to the public by as early as 2002, including by openly discussing his concept of linking and cross-linking of derotators with fellow surgeons around the world. Tr. 1670:3-1672:22; DEF 464.

examination, Dr. Yassir attempted to avoid the fact that he could not dispute Dr. Lenke on these points, concluding as follows: "Correct. I'm just not – I'm not disagreeing with anything that Dr. Lenke said. I'm just not agreeing to how – what it is characterized as. That's all." Tr. 1913:1-5; *see also* Tr. 1907:10-1908:1; Tr. 1908:19-1909:12; Tr. 1912:5-25.

VI. The Jury's Damages Award Is Not Supported By The Evidence.

The evidence presented at trial was insufficient to support the jury's damages award for several reasons.[12] As an initial matter, Ms. Schenk admitted at trial that she did not rely on Medtronic's business records that indicated each time that the accused VCM Kit was opened (even if it was not used) in a surgery – thus, constituting a ceiling on the total number of allegedly infringing surgeries. Tr. 1236:2-18. Rather than relying on Medtronic's actual business records to determine the number of allegedly infringing surgeries, Ms. Schenk relied on the results of the Neal Survey (which, as detailed above, contained numerous flaws), as well as market-share numbers that necessarily include Medtronic products that were not accused in this case, such as the SmartLink product. Tr. 1215:7-20; Tr. 1236:24-1237:11; Tr. 1237:17-1238:2. Ms. Schenk also disregarded Medtronic business records that detailed every shipment of the accused VCM Kit between March 2010 and March 2015, despite admitting that she had no basis to deem the shipping information unreliable. *See* Tr. 1312:5-8; Tr. 1314:9-1315:12.[13] Ms. Schenk's analysis suffered from the following additional other flaws as well.

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[12] Additionally, Medtronic maintains its objection that Ms. Schenk's testimony should have been excluded under *Daubert* for the reasons stated in its earlier briefing, Dkt. 209; Dkt. 254, and reserves the right to renew the objection in a post-judgment motion for new trial.

[13] Tellingly, Ms. Schenk *did* rely on objectively untrustworthy information when doing so was favorable to Dr. Barry. For example, she relied upon the testimony of Mr. Pfefferkorn, an independent sales representative, even after being notified that he submitted an incorrect affidavit to this Court at Dr. Barry's urging, and then perjured himself in his trial testimony,

First, Ms. Schenk's reliance on the Neal Survey rendered her analysis flawed *ab initio.* (*See supra* pp. 4-7). Due to her reliance on the Neal Survey*,* Ms. Schenk's damages model was not limited to use of the accused VCM Kit to perform infringing procedures. Rather, the model includes procedures that are in no way related to usage of Medtronic's VCM Kit. Indeed, the overly broad design of the survey questions covered procedures performed with Medtronic's SmartLink product, a product which the Court specifically excluded from this trial. This problem was compounded by Ms. Schenk's use of Medtronic's alleged market share to estimate the number of infringing procedures despite the fact that Medtronic sells products that may be used in scoliosis surgeries that are not accused in this case. Tr. 1230:17-1231:5.

Second, Ms. Schenk's damages model relies on unfounded speculation and guesswork (estimates multiplied by estimates) to arrive at an extrapolated number of allegedly infringing procedures. This amounts to unreasonable and unreliable speculation, particularly where actual numbers – such as the number of times that a VCM Kit was opened, the average number of screws used by surgeons in the procedures, and the number of times that VCM Kits were shipped – were available. *See ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 868-873 (Fed. Cir. 2010).

Third, the damages model assumes the existence of thousands of allegedly infringing surgeries abroad without any actual evidence.[14] (*See supra* pp. 10-11). To the extent that Ms. Schenk's analysis is based on Medtronic's shipment of *rods* outside of the United States as a proxy for alleged infringement, it is again unreliable and speculative. *See, e.g.*, Tr. 1154:18-

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saying first that he had written the affidavit and then admitting that Dr. Barry had actually written it for him. Tr. 1170:2-15; Tr. 1172:4-1173:9; 1173:24-1175:12. (Dr. Barry, of course, has admitted making directly conflicting sworn statements under oath to this court, Tr. 423:5-18; Tr. 424:1-18; Tr. 426:16-428:18, and also admitted changing his sworn testimony in his deposition after his counsel instructed him to do so. Tr. 412:1-24.)

[14] Medtronic cannot be held liable for activity abroad under § 271(b).

1156:11. The analysis is not tied to shipment of the accused VCM Kits (or components thereof), assumes infringement with no support, and instead relies on the shipment of a basic product that has many non-infringing uses in a variety of medical procedures. Tr. 1290:13-1291:20.[15]

Fourth, Ms. Schenk began calculating damages on the wrong date, beginning on the date that the '358 patent issued in 2010, despite the fact that Dr. Barry did not establish Medtronic's allegedly inducing acts, knowledge of the patent, and knowledge of infringement – if at all – until much later. *See Commil*, 135 S. Ct. at 1926-28; *Global-Tech*, 563 U.S. at 766. Because knowledge, an affirmative act of inducement, and direct infringement are all prerequisites to liability, the damages period could not have run until each of those elements were met. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488-91 (1964); *Trell v. Marlee Elecs. Corp.*, 912 F.2d 1443, 1447-48 (Fed. Cir. 1990).

Fifth, Ms. Schenk's model alleges a royalty of $1200 per procedure – based on her assumptions that an average of 20 pedicle screws are used per surgery and $60 per pedicle screw would be an appropriate royalty – for a *non-exclusive* license, Tr. 1078:24-1079:3, despite the fact that EBI/Biomet pays significantly less for an *exclusive* license *with additional services*. Further, Ms. Schenk provides no reasonable basis for the asserted revenue-per-surgery and price of pedicle screws in her analysis. Ms. Schenk's testimony, even if admissible, is insufficient to support the jury's damage award against Medtronic. *See Brooke Group*, 509 U.S. at 242.

For all the foregoing reasons, Medtronic respectfully requests that this Court enter judgment in favor of Medtronic under Federal Rule of Civil Procedure 50(a).

[15] Dr. Barry never argued that shipment of the rod alone could constitute infringement under § 271(f)(2) or that the rod alone constituted a "substantial portion of the components" of the invention under § 271(f)(1).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a) on November 29, 2016.

/s/ Mary-Olga Lovett
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