

United States Court of Appeals for the Federal Circuit

2009-1058, -1059

MEDTRONIC NAVIGATION, INC. (formerly known as Surgical Navigation Technologies, Inc.), MEDTRONIC SOFAMOR DANEK, INC., and SOFAMOR DANEK HOLDINGS, INC.,

Plaintiffs-Appellants,

and

ST. LOUIS UNIVERSITY and
TRUSTEES OF DARTMOUTH COLLEGE,

Plaintiffs,

and

MCDERMOTT WILL & EMERY LLP,

Nonparty-Appellant,

v.

BRAINLAB MEDIZINISCHE COMPUTERSYSTEME GMBH,
BRAINLAB AG, BRAINLAB USA, INC., and BRAINLAB, INC.,

Defendants-Appellees.

Seth P. Waxman, Wilmer Cutler Pickering Hale and Dorr LLP, of Washington, DC, argued for plaintiffs-appellants. With him on the brief were William G. McElwain, Amy J. Nelson; Mark C. Fleming and Felicia H. Ellsworth, of Boston, Massachusetts.

Carter G. Phillips, Sidley Austin LLP, of Washington, DC, argued for nonparty-appellant. With him on the brief were Robert N. Hochman and Tacy F. Flint, of Chicago, Illinois.

Jay R. Campbell, Renner, Otto, Boisselle & Sklar, LLP, of Cleveland, Ohio, argued for defendants-appellees. With him on the brief were Joshua M. Ryland, Todd R. Tucker and Kyle B. Fleming. Of counsel was John J. Del Col.

Appealed from: United States District Court for the District of Colorado

Senior Judge Richard P. Matsch

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Appeals from the United States District Court for the District of Colorado in
case no. 98-CV-01072, Senior Judge Richard P. Matsch.

DECIDED: April 26, 2010

Before NEWMAN, LOURIE, and BRYSON, Circuit Judges.

Opinion for the court filed by Circuit Judge BRYSON. Concurring opinion filed by Circuit Judge LOURIE.

BRYSON, Circuit Judge.

Medtronic Navigation, Inc., Medtronic Sofamor Danek, Inc., and Sofamor Danek Holdings, Inc., (collectively, “Medtronic”) and trial counsel McDermott Will & Emery LLP (“McDermott”) appeal from a district court order awarding attorney fees, costs, expenses, and interest in the amount of \$4,382,031.36. We reverse.

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Medtronic brought this patent infringement action in 1998. The accused devices included the defendants’ VectorVision products, which are image-guided surgical navigation devices that use an array of cameras to detect the position of surgical instruments through triangulation. The VectorVision devices employ a “passive optical” guidance system in which the surgical instruments do not carry signal emitters, but instead carry reflectors that reflect an infrared signal sent from elsewhere. The cameras use those reflections to determine the locations of the surgical instruments relative to the patient. Medtronic also alleged infringement by a similar device known as the ExacTrac, which is used in radiation therapy.

The complaint initially alleged that the defendants (collectively, “BrainLAB”) had infringed U.S. Patent No. 5,383,454 (“the Bucholz patent”). Medtronic added three other patents to the suit as it acquired the rights to them. Those patents were U.S. Patent No. 4,722,056 (“the Roberts patent”) and U.S. Patent Nos. 5,389,101 and 5,603,318 (“the Heilbrun patents”).

The Bucholz patent describes a system and method for tracking and displaying the location of a surgical instrument within a patient’s head during brain surgery. The invention uses a “reference means” to detect the locations of the surgical instrument and the patient’s head, and then determines their relative positions through

triangulation. The only embodiment described in the specification is an acoustic system in which the “reference means” is an array of microphones that receives sound waves from emitters located on the surgical instrument and attached to the patient’s head. By processing the information received by the microphones, the system is able to determine the location of the instrument within the patient’s body at each moment in time.

The Roberts patent teaches a method, system, and apparatus that takes a scanned image from an imaging system, such as a CT scanner, and maps it onto the image produced by a microscope during a surgical procedure, so that the scanned image can be displayed as an overlay. The specification describes using either acoustic or electromagnetic means to establish the spatial relationship between the microscope and the “fiducials,” i.e., points of reference attached to the patient that are detectable by the system. The specification adds, without elaboration, that “[a]n optical system can be used as an alternative to the acoustic system.”

The Heilbrun patents disclose an optical reference system used for locating a medical instrument relative to a patient’s body within a medical workspace. The Heilbrun apparatus begins by establishing “a workspace coordinate framework in three dimensions.” It accomplishes that task by using cameras to make pairs of images of the workspace, including a “fiducial structure,” along intersecting sightlines. The system then uses the image pairs to compute the three-dimensional coordinate system.

A

On September 29, 2004, the district court issued a claim construction order. The court construed the Bucholz patent as limited to tracking systems that use acoustic

methods and the Roberts patent as limited to tracking systems that use acoustic or electromagnetic methods. The court rejected the broader construction proposed by Medtronic, which described the inventions as using generic “sensors” or “receivers,” and not being limited to the use of any particular form of radiation, whether acoustic, optical, or other. In doing so, the court specifically excluded optical methods, such as the ones used by BrainLAB’s accused products, from the scope of the claims. The court construed the Heilbrun patents, which described the use of cameras, as limited to tracking systems that employ “a static or immovable coordinate system centered in the workspace that must be reestablished if one or more of the cameras are moved.”

Following the court’s claim construction, BrainLAB advised the court that it intended to file motions for summary judgment and that it expected that there would not be a need for a trial on many of the asserted claims because “our products are optical and the claims are limited to non-optic products.” The district court, however, responded that “[t]here are issues of fact. And, as you know, if we’re talking about the doctrine of equivalence, it’s hard not to see issues of fact.”

In February 2005, BrainLAB moved for summary judgment of noninfringement as to all the asserted patents. Regarding the Bucholz and Roberts patents, BrainLAB argued that its products employed an optical reference means and therefore did not literally infringe. In addition, BrainLAB argued that optical systems are substantially different from acoustic systems and that its products therefore did not infringe under the doctrine of equivalents. BrainLAB also contended that argument-based prosecution history estoppel barred Medtronic from asserting the doctrine of equivalents as to the Bucholz patent. BrainLAB pointed out that the inventor, Dr. Richard Bucholz, had

stated to the examiner that his invention, unlike prior art devices, used emitters located on the patient and on the surgical probe. By making that argument, BrainLAB contended, Dr. Bucholz had made a clear and unmistakable disclaimer of “passive” devices, i.e., those that do not rely on emitters located on the patient and the probe. BrainLAB took the position that its products do not infringe the Heilbrun patents because its products use a “dynamic” system with pre-calibrated cameras, while the Heilbrun patents employ a “static” system that must be recalibrated each time the cameras are moved.

In its briefs in response to BrainLAB’s summary judgment motions, Medtronic represented that in view of the court’s claim construction, it would not argue for literal infringement of the Bucholz and Roberts patents, but would limit its infringement theory for those patents to the doctrine of equivalents. As for BrainLAB’s contention regarding argument-based prosecution history estoppel, Medtronic argued that Dr. Bucholz’s statements to the examiner did not constitute a clear and unmistakable disclaimer of passive devices. According to Medtronic, Dr. Bucholz’s statements were simply directed at providing further details regarding a particular embodiment, rather than suggesting that the location of the emitters was critical to the claimed invention as a whole. With regard to the Heilbrun patents, Medtronic argued that even if BrainLAB’s devices use cameras that are pre-calibrated relative to one another, the devices still rely on a fiducial structure to establish a coordinate framework within the medical workspace, and that the “dynamic” quality of BrainLAB’s system is achieved simply by refreshing the workspace calibration at a rapid and automated rate.

Two weeks before trial, the district court denied the summary judgment motions in full. The court announced its decision orally, stating simply, “[O]n the defendant’s motions for summary judgment, I’m denying them. I’m sure that’s not coming as a shock to you, but the filings have been helpful [T]he papers filed have given me more information as to the parties’ respective views of the law that will be applicable in the case.”

B

Trial before a jury began on September 12, 2005. Following Medtronic’s case-in-chief, BrainLAB moved for judgment as a matter of law (“JMOL”) under Rule 50(a) of the Federal Rules of Civil Procedure. In the motion, BrainLAB raised many of the same arguments it had raised in its motions for summary judgment, except that it added an argument that infringement by equivalents under the Bucholz patent was barred by amendment-based prosecution history estoppel. BrainLAB contended that Dr. Bucholz had surrendered all non-acoustic subject matter by adding the term “reference means” to the Bucholz patent, because the district court had later limited that term to mean “an array of microphones.” The district court denied the motion at that time, stating that it would “revisit these points . . . at the conclusion of all of the evidence when you will renew this motion. And we’ll have a better opportunity to read some of this law.” With respect to BrainLAB’s prosecution history estoppel argument, the court stated, “Well, I don’t understand the law, and I’m going to deny the motion. You can brief it further before we go to the jury. But at this point in the case, I don’t understand it.”

At the close of the evidence but before the case went to the jury, BrainLAB renewed its JMOL motions. The district court again denied the motions, stating that

the approach here is going to be we're going to go to the jury on everything that is a jury issue [The] estoppel issues are not going to go to the jury and they'll be considered by [the] Court after a verdict, if there's a plaintiffs' verdict. . . . I'm not suggesting that these arguments don't have some merit, you know, but I've got a jury here. They've been here for two and a half weeks. I'm going to use them all I can to help resolve the issues in this case. And accordingly, I'm going to submit all of these issues to the jury. Post verdict, if there's a plaintiffs' verdict, we can re-visit these issues.

The jury returned a verdict for Medtronic. It found that BrainLAB had infringed the Bucholz and Roberts patents under the doctrine of equivalents and that BrainLAB had infringed the Heilbrun patents both literally and under the doctrine of equivalents. The jury awarded Medtronic \$50 million for infringement of the Bucholz and Roberts patents, and an additional \$1 million for infringement of the Heilbrun patents. After the jury was dismissed, the district court judge stated, "I enjoyed working with counsel and I think that both sides, all of you, have presented the case in the best possible way, both with respect to the professionalism involved and also with being mindful of the need to do it efficiently."

C

After trial, BrainLAB once again filed JMOL motions under Rule 50(b). This time, however, the district court granted the motions and entered judgment of non-infringement as to all four patents. Medtronic Navigation, Inc. v. BrainLAB Medizinische Computersystems GmbH, 417 F. Supp. 2d 1188 (D. Colo. 2006).

With respect to the Bucholz patent, the court held that Medtronic's doctrine of equivalents theory was barred by prosecution history estoppel, adopting both the argument-based and amendment-based theories advanced by BrainLAB. The court also held in the alternative that the evidence failed to show factual equivalence because

the claimed acoustic system operates differently from the accused optical system in several respects, beyond the fact that they employ different forms of radiation. Most significantly, in determining the location of the signal, the acoustic system measures the time required for the sound to travel from the emitters to the microphones, while the optical system detects the direction from which the reflected light is received. Other differences, the court noted, are that the acoustic system has to contend with echoes, while the optical system does not; that the acoustic system has to rely on sequential activation and detection of each energy source, while the optical system can detect the light reflected from multiple markers simultaneously; and that the patented system requires that the surgical probe be linked to a power source to energize the emitters on the probe, while the accused BrainLAB devices do not require a power source on the probe because the probe uses reflectors rather than emitters. In sum, the court concluded that the Bucholz system and the accused products do not perform the function of locating the relative positions of the probe and the patient in substantially the same way. The court added that the jury's finding of infringement of the Bucholz patent "resulted from plaintiffs' deliberate distortion of the court's claim construction rulings" and "abuse of advocacy."

With respect to the Roberts patent, the court again focused on factual equivalence, and for the same reasons the court concluded that the "way" prong of the "function-way-result" test was not satisfied. The court explained that "broad conceptual similarity does not support a finding of equivalence."

The district court noted that a different analysis was required with respect to the Heilbrun patents, which use cameras to locate objects within a medical workspace. The

issue with regard to the Heilbrun patents, the court explained, was whether BrainLAB's VectorVision products establish a "workspace coordinate framework in three dimensions" by using a "fiducial means . . . positioned within said workspace," as required by claim 1 of each of the Heilbrun patents. There was no literal infringement, the court concluded, because the evidence did not show that the BrainLAB devices use a fiducial means to establish the workspace coordinate framework. In the BrainLAB devices, the court held, the coordinate framework is pre-established by some other means, and the fiducial means in the BrainLAB devices serves a subsidiary purpose: tracking the location of the patient (in the VectorVision) or determining the isocenter of a radiation therapy machine (in the ExacTrac). As for the jury's finding that the Heilbrun patents were infringed under the doctrine of equivalents, the court ruled that the record was devoid of particularized testimony to support that aspect of the jury's verdict; the court therefore granted judgment to BrainLAB on that issue as well.

Medtronic appealed from the district court's order granting judgment for BrainLAB as a matter of law. This court affirmed the district court's ruling in a non-precedential opinion. Medtronic Navigation, Inc. v. BrainLAB Medizinische Computersysteme GmbH, 222 F. App'x 952 (Fed. Cir. 2007). This court's ruling was based on essentially the same grounds given by the district court. The court did not, however, adopt or comment on the district court's criticisms of the advocacy of Medtronic's trial counsel.¹

¹ BrainLAB argues that the district court's criticisms of counsel's conduct constituted findings of misconduct and that the "mandate rule" bars Medtronic from challenging those findings in this appeal. There is no force to that argument. The district court's criticisms had little or nothing to do with whether JMOL was properly granted, and this court neither expressly nor implicitly adopted those criticisms. Our decision in the JMOL appeal therefore has no preclusive effect with respect to the sanctions issue in the present appeal. See Lairam Corp. v. NEC Corp., 115 F.3d 947,

D

After the appeals process was completed, BrainLAB filed a petition in the district court seeking attorney fees and expenses based on 35 U.S.C. § 285, 28 U.S.C. § 1927, and the court's inherent powers. BrainLAB argued that the case was exceptional and that Medtronic and its trial counsel, McDermott, had prolonged a frivolous lawsuit and had obtained an improper jury verdict through litigation misconduct and abusive advocacy.

The district court agreed with BrainLAB, held that the case was exceptional under 35 U.S.C. § 285, and ruled that an award of attorney fees was justified. Medtronic Navigation, Inc. v. BrainLAB Medizinische Computersystems GmbH, No. 98-cv-1072 (D. Colo. Feb. 12, 2008). In so doing, the district court relied on two grounds. First, the court ruled that Medtronic should have “accept[ed] that the claims construction rulings stripped the merits from this case.” According to the court, Medtronic either should have sought to take an interlocutory appeal from the claim construction order or should have abandoned its case when BrainLAB filed its motions for summary judgment. Second, the court ruled that Medtronic’s counsel had engaged in various forms of litigation misconduct during the trial, including misleading the jury as to the court’s claim construction; focusing on a comparison between a Medtronic product and a BrainLAB product, rather than on a comparison between the patent claims and the accused products; and wrongfully arguing that a statement in an FDA submission made by BrainLAB constituted an admission of infringement.

951 (Fed. Cir. 1997) (mandate rule applies to issues expressly decided by the reviewing court and those decided by necessary implication).

With respect to Medtronic's failure to abandon its claims after the claim construction ruling, the court ruled that Medtronic and the McDermott lawyers "had a duty to reexamine this litigation [after claim construction] and make an objective assessment of the validity of Medtronic's claims that BrainLAB's products infringed the patent claims as construed." Instead, the court stated, Medtronic continued undeterred despite full awareness that its case was without merit, "reflecting an attitude of 'what can I get away with?'"

The district court charged that Medtronic had artfully avoided the court's claim constructions in order to create an illusion of infringement and had "chose[n] to pursue a strategy of distorting those rulings [and] misdirecting the jury to a different reading of the claim language." In particular, the court criticized Medtronic for "repeatedly describ[ing] the Bucholz invention as having 'an array of sensors' for detecting radiated energy—the claim construction that Medtronic had argued and lost."

The district court also criticized Medtronic for disregarding the prosecution history of the Bucholz patent, which had proved fatal to Medtronic's doctrine of equivalents claim. The court concluded that in light of the prosecution history, Medtronic "fully understood that it could not rely on the Bucholz '454 Patent . . . unless the Bucholz Patent claims were construed so as to bring that technology within the literal claim scope."

As for the Heilbrun patents, the district court stated that Medtronic "struggled to articulate a viable theory of infringement" after the claim construction order and "never was able to do so." The court characterized Medtronic's theory, that BrainLAB's dynamic referencing system was simply a faster version of the static system described

in the Heilbrun patents, as flawed because it “failed to take into account the actual operation of the BrainLAB products.” The court added that Medtronic’s position at trial with respect to the Heilbrun patents was different from the position it had taken in its summary judgment responses.

In addition to awarding attorney fees under 35 U.S.C. § 285, the district court invoked 28 U.S.C. § 1927 and held McDermott jointly responsible for the fee award on the ground that the McDermott attorneys had proceeded “cavalierly” and “with full awareness that their case was without merit.” In the alternative, the court based its order against McDermott on its inherent authority to assess fees against counsel who engage in abusive litigation conduct. Both Medtronic and McDermott have appealed the sanctions order to this court.

II

Awards of attorney fees under section 285 are reviewed under a highly deferential standard. See Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1026 (Fed. Cir. 2008) (factual findings in section 285 determination are reviewed for clear error; legal conclusions are reviewed without deference; determination of whether and in what amount to award fees is reviewed for abuse of discretion). Despite our reluctance to second-guess the judgment of trial judges who typically have intimate knowledge of the case, we have the responsibility, in light of the substantial economic and reputational impact of such sanctions, to examine the record with care to determine whether the trial court has committed clear error in holding the case exceptional or has abused its discretion with respect to the fee award. Where we have found error, we have reversed exceptional case findings and vacated attorney fee awards based on

those findings. See, e.g., DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 567 F.3d 1314, 1337-39 (Fed. Cir. 2009); FieldTurf Int'l, Inc. v. Sprinturf, Inc., 433 F.3d 1366 (Fed. Cir. 2006); Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc., 393 F.3d 1378 (Fed. Cir. 2005); Stephens v. Tech Int'l, Inc., 393 F.3d 1269 (Fed. Cir. 2004); Forest Labs., Inc. v. Abbott Labs., 339 F.3d 1324 (Fed. Cir. 2003). Based on a close study of the record in this case, we conclude that the district court committed clear error in finding this case to be exceptional, and we therefore reverse.

A

We first address the district court's ruling that Medtronic acted improperly in failing to abandon its claims following the district court's claim construction order. The salient inquiry is whether Medtronic's claims were so lacking in merit that Medtronic was legally obligated either to abandon its case altogether or to limit itself to challenging the district court's claim construction order on appeal. If Medtronic's infringement claims were not frivolous or objectively unreasonable, Medtronic was entitled to pursue those claims, and its ultimate lack of success does not render the case exceptional. See Brooks Furniture, 393 F.3d at 1384 ("[E]nforcement of patent rights that are reasonably believed to be infringed does not entail special penalty when the patentee is unsuccessful.").

We have held that there is a presumption that an assertion of infringement of a duly granted patent is made in good faith. Brooks Furniture, 393 F.3d at 1382; Springs Window Fashions LP v. Novo Indus., L.P., 323 F.3d 989, 999 (Fed. Cir. 2003). Clear and convincing evidence is required to overcome that presumption and show that the patentee's infringement claims were vexatious, unjustified, or frivolous, and were

pursued in bad faith. Serio-US Indus., Inc. v. Plastic Recovery Techs. Corp., 459 F.3d 1311, 1322 (Fed. Cir. 2006); Forest Labs., 339 F.3d at 1329-30.

The district court's characterization of Medtronic's claims as frivolous is undermined by the fact that the court denied BrainLAB's motions for summary judgment and denied each of its motions for JMOL filed during the trial. Absent misrepresentation to the court, a party is entitled to rely on a court's denial of summary judgment and JMOL, as well as the jury's favorable verdict, as an indication that the party's claims were objectively reasonable and suitable for resolution at trial. See ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 875 (Fed. Cir. 2010) ("[T]he district court's denial of summary judgment of noninfringement reflects the belief that it was reasonable for ResQNet to have retained that patent for suit."); Forest Labs., 339 F.3d at 1330 (district court's denial of JMOL at the close of the evidence and the jury's favorable verdict "suggest that [the patentee's] position was not baseless"); Beckman Instruments, Inc. v. LKB Produkter AB, 892 F.2d 1547, 1551 (Fed. Cir. 1989) ("[W]e find it difficult to agree that the inequitable conduct defense was 'baseless' when it survived a motion for summary judgment and was rejected only after findings were made on disputed facts."); Browning v. Kramer, 931 F.2d 340, 345 (5th Cir. 1991) ("[O]ne might well wonder how a case could be so frivolous as to warrant sanctions if it has sufficient merit to get to trial."); Ruben v. Warren City Sch., 825 F.2d 977, 988 (6th Cir. 1987) ("A sanction is generally improper where a successful motion could have avoided any additional legal expenses by defendants."); see also Schlaifer Nance & Co. v. Estate of Warhol, 194 F.3d 323, 338 (2d Cir. 1999) (favorable jury verdict "also speaks against the District

Court's finding of the absence of colorability—the attorneys were not the only ones who found SNC's claim convincing").

Of course, if the party's success at the summary judgment stage is due to false or misleading representations about its evidence, the party cannot rely on the district court's denial of summary judgment to shield it from liability for sanctions. However, the district court did not point to any misrepresentations made by Medtronic and its counsel at the summary judgment stage, and in our review of the record we have found none.

As for the court's statement that Medtronic and its counsel had a legal obligation not to oppose BrainLAB's summary judgment motions, we disagree. An examination of each of Medtronic's infringement claims at trial confirms that each was sufficiently reasonable to warrant being litigated to verdict, even though all of them were ultimately rejected by the district court in its JMOL ruling and by this court on appeal.

1

With regard to the Bucholz and Roberts patents, Medtronic revised its case in light of the district court's claim construction ruling. Medtronic withdrew its claims of literal infringement as to those two patents and proceeded only with claims of infringement under the doctrine of equivalents. Although the district court complained that Medtronic's doctrine of equivalents theory applied to subject matter that was outside the scope of the court's claim construction, that is not an indication of impropriety, as any assertion of the doctrine of equivalents "necessarily deals with subject matter that is 'beyond,' 'ignored' by, and not included in the literal scope of a claim." Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1317 (Fed. Cir. 1998). Thus, even though the district court in its claim construction ruling had

rejected Medtronic's argument that the literal scope of the Bucholz and Roberts patents should extend to an "array of sensors" in general, rather than be limited to acoustic sensors, Medtronic was entitled to argue that an "array of sensors" could still infringe under the doctrine of equivalents.

Medtronic made no attempt to conceal the fact that the Bucholz and Roberts patents, as construed, relied principally on microphones and sound waves as the means for performing the locating function, and that BrainLAB's devices relied on cameras and light waves. Instead, Medtronic sought to persuade the jury that despite that difference BrainLAB's devices and methods were substantially equivalent to the claimed subject matter for purposes of the doctrine of equivalents.

In opposing summary judgment, Medtronic relied heavily on the reports of Dr. Bucholz, Dr. Roberts, and its expert witness, Dr. Eric Grimson. Dr. Bucholz explained that although

an optical position sensing system with reflective markers uses a different form of radiation than an acoustic position sensing system (light versus sound), the two position sensing systems are equivalent because both determine the position of a surgical probe by using radiation, triangulation, sensors and emitters. Both systems perform . . . substantially the same function of determining the position [of] a point in the workspace relative to a set of sensors.

He also stated that "[a]nyone familiar with position sensing systems would understand that there are engineering, medical and convenience trade-offs associated with acoustic and optical position sensing systems." Nonetheless, he explained, "each can be used to sense the position of an object in the medical workplace, and each uses a reference array for localization. . . . The inventive breakthrough was the ability to map the position

of an ultrasound probe on medical images—a surgical navigation system—and not the type of radiation-based position sensing system.”

Dr. Roberts stated that the main component of his patent was “the concept of relating a location in the surgical field to a location in the patient’s imaging studies,” which was implemented “by accurately overlaying a patient’s scan images over the field of view of the microscope to allow coordinated viewing of the patient and a computer-generated image of the patient.” That objective, Dr. Roberts explained, could be achieved by three different position-sensing systems, “an optical system, [an] acoustic system, and an electromagnetic system.” He added that each type of system “has its pros and cons, but surgeons and researchers have used these systems interchangeably for position sensing during surgery since at least the mid-1980s.”

Dr. Grimson stated that the passive optical systems in BrainLAB’s devices were substantially equivalent to the acoustic systems of the Bucholz and Roberts patents, even though the systems used different forms of radiation, because either system could be used to coordinate the location of instruments or images with the location of a patient in an operating room. Dr. Grimson further stated that the two systems were legally equivalent because they performed the same function of using radiation to determine the location of a particular point relative to the patient; they did so in the same way, by computer processing of the signals to determine the respective locations by triangulation; and they achieved the same results.

At trial, Dr. Grimson elaborated on the statements he had made in his report regarding the issue of equivalence. He began by acknowledging that because the court had construed the term “reference means” in the Bucholz patent to mean an array of

microphones, BrainLAB's VectorVision products did not infringe the literal scope of the patent. Nevertheless, he maintained that the VectorVision products infringed under the doctrine of equivalents. Dr. Grimson explained that the function of both the patented reference means and the accused equivalent was to track a surgical instrument, and that the way the tracking was performed was through

a sequence of sensors, in this case they're optical sensors, again, there's more than one, they're separated apart. They're detecting radiation or energy waves—in this case it would be the light waves, not the sound waves that we're seeing here. And, again, as I said in this case the sensors are cameras, they're not microphones. But they're again triangulating, detecting differences in what is being observed by them, using that to—to determine a distance, digitizing the result. And then the result, in my opinion, . . . is the same thing, it's a set of 3D coordinates.

Dr. Grimson testified similarly with regard to the Roberts patent. The district court had construed claim 1 of the Roberts patent to include the use of an acoustic or electromagnetic reference system but had ruled that the claim "does not include an optical reference system." Dr. Grimson testified that he had considered and applied the court's construction of that claim and had concluded that BrainLAB's VectorVision products infringed that step, not literally but under the doctrine of equivalents.

Dr. Kurt Smith, one of the developers of the StealthStation, Medtronic's optical tracking device, described a paper that he had co-authored that compared optical and acoustic tracking systems that were available at the time. He said he and his colleagues "recognized that these were interchangeable components, and we wanted to know which one of these tracking units would be most suitable for our surgical navigation system." He explained that the optical tracking unit "behaves the same way" as the acoustic tracking unit: "It's just that the radiation waves are light waves, as opposed to sound waves." The optical and acoustic units, he stated, were

“interchangeable”; they both performed the same function of tracking the probe, and they “tracked the probe in the same way, using emitters and radiation coming off of those emitters, that would then be detected by the sensors, whether that radiation was light or sound.” He added that they both produced the same result, in that they “both produced that three dimensional coordinate of the tip of the probe, which was needed by the surgical navigation computer.”

The evidence summarized above was sufficient to justify Medtronic’s decision to go forward with its claim of infringement under the doctrine of equivalents with respect to both the Bucholz and the Roberts patents. Medtronic’s expert witnesses set forth their views that the use of an optical rather than acoustic system was not a sufficiently important distinction as to render the doctrine of equivalents inapplicable. That position was not unreasonable even though it did not ultimately prevail.

2

As for BrainLAB’s assertion of prosecution history estoppel with respect to the Bucholz patent, it is true that Medtronic was ultimately unsuccessful on that issue before the trial court, and that on appeal we sustained the trial court’s JMOL decision. However, we do not regard the issue as being so clear-cut that it was unreasonable for Medtronic to litigate the question until it obtained a ruling from the district court on the matter. See Haynes Int’l, Inc. v. Jessop Steel Co., 8 F.3d 1573, 1579-80 (Fed. Cir. 1993) (district court erred in awarding attorney fees under 35 U.S.C. § 285 based on the conclusion that the patentee should have known its infringement claim was barred by prosecution history estoppel).

The district court itself found the estoppel argument sufficiently complex to warrant postponing ruling on that issue, and it ultimately devoted six pages of detailed analysis to the issue in its post-trial opinion granting judgment as a matter of law. Those circumstances, while not dispositive, provide some support for Medtronic's argument that it was justified in not throwing in its hand at the summary judgment stage. See Salovaara v. Eckert, 222 F.3d 19, 29 (2d Cir. 2000); Carlock v. Nat'l Co-operative Refinery Ass'n, 424 F.2d 148, 152 (10th Cir. 1970).

At the summary judgment stage, BrainLAB's prosecution history estoppel argument was based entirely on argument-based estoppel. BrainLAB focused on whether Dr. Bucholz's statements to the examiner regarding the use of "emitters" attached to the instrument and the patient gave up any potential claim of equivalence for "passive" systems that use reflectors rather than emitters. Medtronic responded by arguing that those statements did not constitute a surrender of subject matter, but were only a description of an embodiment provided in response to the examiner's objection to the application for lack of specificity. While Medtronic's argument was ultimately unsuccessful, we regard it as plausible, particularly in light of the fact that argument-based estoppel requires a "clear and indisputable" disclaimer of subject matter.

BrainLAB did not make a separate argument for amendment-based prosecution history estoppel at the summary judgment stage, so that issue does not bear on the reasonableness of Medtronic's decision to resist summary judgment with respect to the Bucholz patent. Nor do we think that Medtronic acted unreasonably in litigating that issue once it was raised on motion for JMOL.

The relevant amendment related to the following step of the claim that ultimately became claim 14 of the Bucholz patent: “measuring the position of the tip of the surgical probe relative to the reference points of the head.” When the examiner rejected that claim based on indefiniteness and anticipation by a prior art patent, Dr. Bucholz rewrote that step by breaking it into two steps: “determining the position of the tip of the surgical probe relative to reference means having a present location,” and “determining the position of the reference points of the head relative to the reference means so that the position of the tip relative to the reference points of the head is known.” Dr. Bucholz explained that the change was made in order to clarify that his invention related to “a significantly different problem” than the cited prior art patents, which addressed only “the ability to superimpose a coordinate system on head images.” He stated that the prior art patents did not “address how they would localize a surgical instrument within the head during the course of surgery,” and he emphasized the role of the emitters located on the probe and on the patient’s head, which could be “sound or light emitters.”

Based on Dr. Bucholz’s comments and the context in which his amendment was made, Medtronic argued that the amendment did not preclude it from relying on the doctrine of equivalents. The context in which the amendment was made, Medtronic argued, demonstrated that the rationale underlying the amendment bore, at most, only a “tangential relation” to the asserted equivalent in the BrainLAB systems, and thus did not foreclose recourse to the doctrine of equivalents under the principles of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 740-41 (2002).

The district court rejected that argument, and so did this court on appeal. However, the amendment to the claim language, which added the term “reference

means,” did not expressly address the form of energy used for tracking, which was the basis for BrainLAB’s amendment-based estoppel argument. Medtronic’s response was therefore not so frivolous that it was improper for Medtronic to raise it.

3

With regard to the Heilbrun patents, we are persuaded that Medtronic’s opposition to BrainLAB’s summary judgment motion was well founded and that its position at trial was reasonable. Moreover, we disagree with the district court that Medtronic’s position at trial was inconsistent with its position at the summary judgment stage.

The dispute over the Heilbrun patents focused on whether BrainLAB’s products relied on the use of a “fiducial” structure to establish a three-dimensional workspace coordinate system. The Heilbrun patents, as construed by the district court, required the calibration process to be performed by photographing the fiducial structure from two different camera positions. At the summary judgment stage, Medtronic identified four structures in the accused products that could qualify as “fiducial means” within the meaning of the Heilbrun patents, two of which related to workspace calibration and two of which related to camera calibration. At trial, Medtronic presented evidence as to only the two workspace calibration structures: It identified the “Mayfield star” as the fiducial structure in the VectorVision and the “isocenter calibration phantom” as the fiducial structure in the ExacTrac. The district court rejected Medtronic’s infringement theory in its JMOL opinion because it found that the cameras used in the BrainLAB devices are already pre-calibrated relative to each other and therefore do not require the use of any fiducial structure to establish the three-dimensional coordinate system. The court

concluded that BrainLAB's products use the Mayfield star and the isocenter calibration phantom to locate points within an existing coordinate system, but not to establish the coordinate system itself.

Although Medtronic was unable to persuade either the district court or this court that BrainLAB's products use a fiducial structure or its equivalent in an infringing manner, we cannot agree with the district court that Medtronic's arguments on that issue were frivolous or vexatious. Medtronic's claim of infringement was based in part on the analysis of its expert, Dr. Russell Taylor, and in part on BrainLAB's documents, including one that stated that the Mayfield star "establishes the 3D coordinate system for VectorVision Neuronavigation System within the operating field."

Furthermore, after considering Medtronic's submissions at the summary judgment stage and at trial, we do not perceive that Medtronic changed its position in a way that was improper. In effect, Medtronic narrowed the scope of its infringement claim from relying on four structures at the summary judgment stage to relying on only two of those four structures at trial. A decision by a party to narrow its case for presentation to a jury does not generally suggest manipulation of the litigation process, and we see nothing improper in Medtronic's decision to narrow its infringement claim in this case. We conclude that Medtronic presented a plausible theory of literal infringement even under the district court's restrictive claim construction, both at the summary judgment stage and at trial.

B

Having decided that Medtronic's claims were not frivolous and that Medtronic was not obligated to concede noninfringement in light of the district court's claim

construction, we turn to the question whether the court’s ruling under section 285 can be sustained based on the court’s findings of litigation misconduct at trial. The court focused mainly on comments by Medtronic’s counsel in his closing and rebuttal arguments.

1

Several of the comments that the district court highlighted were unobjectionable, and the court’s criticisms of those comments were therefore unwarranted. Perhaps the best example is the court’s statement that Medtronic’s counsel “repeatedly told the jury during closing argument that ‘tracking is tracking,’ a statement that misguided the jury about the requirements of infringement analysis.” The court did not explain how the “tracking is tracking” comments misguided the jury, but the court’s concern appears to have been that the comments invited the jury to disregard the court’s claim construction. The “tracking is tracking” comments, however, were consistent with Medtronic’s theory of the case that tracking by acoustic methods is substantially equivalent to tracking by optical methods. In fact, Medtronic’s counsel made clear that his argument about tracking related to the “function” element of the “function-way-result” test for the doctrine of equivalents; he argued that tracking was the function performed both in the Bucholz patent and in the accused devices, and that the difference in the way the tracking was done effected in the patent and in the accused devices was insubstantial. That shorthand way of summarizing Medtronic’s theory of the case was not unfair or confusing. The “tracking is tracking” comments were not accompanied by any suggestion, subtle or otherwise, that the jury should not follow the court’s instructions.

We fail to see how those statements could have misled the jury as to the issue of infringement under the doctrine of equivalents.

The district court also found that Medtronic's counsel committed misconduct during closing argument by suggesting to the jury "that the absence of jury instructions about the prosecution history of the Bucholz Patent showed that BrainLAB had not been forthright in its presentation." The court noted that the jury instructions had not referred to prosecution history estoppel because the court had ruled that issue to be a question of law for the court, and not for the jury.

When viewed in context, counsel's comment was innocuous. It was made in response to an argument made by the opposing party, and it did not exceed the bounds of fair commentary on the issues, the evidence, and the jury's task as defined by the court. BrainLAB's attorney initiated the discussion of the prosecution history of the Bucholz patent during his closing argument, contending that Dr. Bucholz had agreed to limit his claims and that he "can't come back into court under the doctrine of equivalents and recapture it." Medtronic's counsel responded on rebuttal by addressing the prosecution history at some length; he concluded by telling the jury that "this whole notion that whatever happened in the patent office on this patent, that somehow it was a limitation, is just nonsense." Counsel then added, "When His Honor reads his instructions to you and he gives his instructions . . . you will not see any instructions that relates to this argument that [BrainLAB's counsel] made."

In effect, Medtronic's counsel was suggesting to the jury that the argument on prosecution history estoppel made by BrainLAB's attorney was erroneous on the merits

and was directed to an issue that was not going to be submitted to the jury. The former assertion constituted permissible argument, in light of BrainLAB’s focus on the issue in its closing argument. The latter assertion was clearly correct, as the court had made clear that it did not intend to instruct the jury on the issue of prosecution history estoppel. Moreover, counsel’s comments drew no objection from BrainLAB’s lawyer. Instead, BrainLAB’s lawyer merely requested, in light of the parties’ discussion of prosecution history estoppel in their closing arguments, that the court instruct the jury briefly on that issue, a request that the court denied. We conclude that it was improper for the district court to base its sanctions order to any degree on that portion of counsel’s closing argument.

3

The district court stated in its sanctions opinion that Medtronic had “pursue[d] a strategy of distorting” the court’s claim construction rulings, “misdirecting the jury to a different reading of the claim language,” and “directing the jury to override the court’s claim construction.” Medtronic did so, according to the district court, through the opinions of its expert witnesses, which the court characterized as “crafted to fit the infringement theories put forward by Medtronic’s counsel,” and by making arguments that gave “superficial recognition to the court’s claim construction rulings, while pressing its own interpretations of the claims.”

The court complained that Medtronic’s experts misled the jury by referring to the Bucholz invention as having “sensors” or “an array of sensors” for detecting radiated energy, which the court characterized as “the claim construction that Medtronic had argued and lost.” We have read the testimony of Medtronic’s experts with care and do

not interpret their testimony as misleading or displaying an intransigent adherence to Medtronic's rejected claim construction.

Dr. Smith stated that the different types of sensors performed the same function, but he did not conceal from the jury the difference between the sound sensors in the Bucholz patent and the light sensors in the accused devices. He testified that in Dr. Bucholz's prototype device, "there were sensors that would actually be watching [the surgical] probe," which "actually had emitters on it, and they were emitting a radiation source, a sound radiation source. So there were sound waves coming off of that probe." The sensors "that were hanging overhead . . . would actually pick up those sound waves, and then digitize them, make them produce three dimensional coordinates of where the tip of that probe is in the patient's head." Dr. Smith acknowledged that BrainLAB contended that its devices did not infringe because BrainLAB's tracking units use light instead of sound. He then explained the difference between sound radiation and light radiation by comparing "your car horn . . . there's an acoustic radiation coming off of that," and "the remote for your television . . . there's a light radiation coming off of that."

Similarly, Dr. Grimson made clear in his testimony that he understood the court to have construed the term "reference means" in the Bucholz patent to mean "an array of microphones." He stated that "the function of the reference means—which in the patent is 'array of microphones' the function is to track—is to try and track objects or bodies." He then summarized his task in applying the doctrine of equivalents in this case as being "to try and determine whether I thought the reference means—as the Court had construed it—was equivalent to the reference means of the optical systems."

In criticizing counsel's argument, the court referred to counsel's invitation to the jury to consider language from the Buchholz patent that

refers to radiation, digitizers off-the-shelf, all this, and it's all right there. . . . [T]hat's how it works and that's what you compare here. Right? You don't compare microphones to cameras because the microphones and the cameras are not doing the work that we're talking about. We're talking about tracking. It's a device to do tracking and it gets the energy waves, the sensors receive that, they do triangulation, and then it gets digitized, and then it goes into the computer.

The court's concern appears to have been that Medtronic's counsel led the jury to focus on "radiation," "digitizing," and "tracking," in order to draw the jury's attention away from the differences between microphones and cameras.

In context, it appears that counsel was not asking the jury to compare a microphone and a camera in the abstract, but rather to compare their relative functions in the patent and in the accused devices. Counsel argued that if you told a group of engineers, "we'd like you to compare a camera to a microphone so we can figure out whether there's equivalence here, they're going to [ask] what does the microphone do and what does the camera do?" He concluded, "The microphone receives the sounds, right? It's the sensor for the sounds. The camera receives the light rays, right? And so, you've got to compare the tracking unit." Because counsel's invitation to compare the functions of the microphones and the cameras in the invention and the accused products served the legitimate purpose of supporting Medtronic's case for equivalence, we disagree with the court's conclusion that counsel urged the jury to disregard the court's claim construction.

The district court criticized Medtronic for making improper product-to-product comparisons between BrainLAB's accused VectorVision product and Medtronic's StealthStation product, which also uses optical tracking technology, for the purpose of proving infringement, even though the proper comparison was between the BrainLAB products and the patent claims.

During the trial, the question arose whether Medtronic would be allowed to introduce evidence regarding its StealthStation device and to compare that device with BrainLAB's VectorVision device. In a colloquy with the court, Medtronic argued that it was proper to introduce the StealthStation for the purpose of demonstrating lost profits, because the two products were sufficiently similar to be competing products. See King Instruments Corp. v. Perego, 65 F.3d 941, 952 (Fed. Cir. 1995); Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1546-47 (Fed. Cir. 1995) (en banc). The trial court admitted the evidence for that limited purpose and cautioned the jury on several occasions that Medtronic's StealthStation was to be considered only in assessing Medtronic's lost profits claim and not in determining infringement.

The district court was legitimately concerned that the product-to-product comparison might confuse the jury by leading it to believe that it should focus on the similarities between Medtronic's StealthStation device and BrainLAB's similar optical tracking devices. While we agree with the district court that the product-to-product comparison presented a risk of jury confusion, we see no reason to conclude that the court's repeated cautionary instructions were insufficient to explain to the jury the limited purpose for which the jury was to consider that evidence.

Neither the trial court nor BrainLAB asserts that it was impermissible for Medtronic to introduce the StealthStation device into evidence and to demonstrate its similarities to BrainLAB's devices as part of Medtronic's proof of damages. Recognizing that the evidence was admissible for that purpose, the district court allowed Medtronic to introduce evidence regarding the StealthStation, subject to a cautionary instruction to the jurors about the limited purpose for which they were to consider that evidence. In light of the court's ruling, it is difficult to fault Medtronic for introducing the StealthStation evidence.²

Moreover, the extent to which the StealthStation evidence was admitted at trial was largely within BrainLAB's control. Medtronic offered to refrain from demonstrating its StealthStation device if BrainLAB would agree not to demonstrate its VectorVision device, but BrainLAB's counsel refused the offer. As a result, both devices were demonstrated to the jury.

Finally, as we discuss in more detail below, the role of the StealthStation evidence became intertwined at trial with the question of which company was the true innovator in the field of surgical navigation devices. BrainLAB argued to the jury that it was the true innovator. In response, it was reasonable for Medtronic to seek to show that its similar and competing device, the StealthStation, preceded BrainLAB's

² A theme running throughout BrainLAB's brief is that Medtronic conceded that the StealthStation did not practice the Bucholz patent but then sought to use the StealthStation device as a "proxy for the claims." That argument oversimplifies Medtronic's position. Medtronic acknowledged that the StealthStation, which like the VectorVision used an optical tracking system, did not literally practice the Bucholz patent as construed by the court. However, Medtronic took the position that both the StealthStation and the VectorVision used the concepts of the Bucholz patent, which is why Medtronic could argue that the VectorVision infringed the Bucholz patent under the doctrine of equivalents and why Dr. Bucholz could characterize the StealthStation as embodying his technology.

VectorVision product and thus that Medtronic and its predecessors were the real innovators in the field of optical tracking devices. For those reasons, we do not agree with the district court that Medtronic's introduction of evidence relating to the StealthStation, and its comparison of the StealthStation with BrainLAB's VectorVision, constituted litigation misconduct justifying the imposition of section 285 sanctions.

5

Apart from the general issue of product-to-product comparisons, the district court focused specifically on the "presentation of testimony and closing argument regarding a letter BrainLAB submitted to the FDA." The letter, which BrainLAB submitted as part of its application for approval to sell the VectorVision in the United States, referred to the "substantial equivalence" between the VectorVision and the StealthStation, which had already been approved for sale in the United States. Alluding to the FDA submission, Medtronic elicited testimony from Dr. Smith that in obtaining FDA approval for the use of passive markers in surgical navigation, BrainLAB had represented to the FDA that its product was substantially similar to the StealthStation. Dr. Smith testified that BrainLAB "indicated to the FDA that the VectorVision was substantially equivalent to the StealthStation and used the StealthStation as their predicate device in that submission."

The lawyers referred to the FDA submission at several points. First, in his opening statement at the outset of the trial, Medtronic's counsel said that BrainLAB "told the FDA [VectorVision is] equivalent [to StealthStation]—doctrine of equivalent; told the

FDA, equivalent.” That statement suggests that counsel was equating the reference to equivalence in the FDA submission with equivalence under the doctrine of equivalents.³

In his closing argument at the conclusion of the trial, counsel for Medtronic did not refer to the FDA submission. BrainLAB’s counsel, however, referred to it on several occasions in his closing argument, as part of his effort to show that BrainLAB was the true innovator in the field of passive optical image-guidance systems. Counsel argued that BrainLAB had developed the first such FDA-approved system, and that Medtronic had copied BrainLAB’s technology and then acquired patents in an attempt to force BrainLAB from the market. BrainLAB’s counsel summarized the point by arguing that

Medtronic made the decision to stop competing with innovation and to start competing by copying and by fighting in the courtroom. We are here because Medtronic concluded that it was just too hard to compete with BrainLAB in the marketplace, so it decided to try to compete in court. . . . And so, ladies and gentlemen, you have to ask yourself: Whose innovation really was stolen? Whose labor was stolen? Whose ideas were really stolen when you look at the evidence? I’ll tell you whose. It was BrainLAB’s.

On rebuttal, counsel for Medtronic took issue with the argument that BrainLAB was the true innovator in the field. Counsel began by referring to a letter from the mid-1990s in which BrainLAB had made a request for a license to the Bucholz patent, which was denied. Counsel argued that the letter requesting a license “is an admission” and then added, “So, then, which was sort of amazing, was that now it’s . . . Medtronic who has stolen from BrainLAB. I just—ladies and gentlemen, I just don’t get that.”

³ In its sanctions opinion, the district court did not refer to that remark by Medtronic’s counsel, perhaps because any effect of the opening statement on the jury was likely attenuated by the end of the trial. We address the opening statement remark because BrainLAB has made an issue of it and because it was the only instance in which Medtronic’s counsel explicitly linked the similarity between the StealthStation and the VectorVision with the doctrine of equivalents. Medtronic argues that counsel’s statement was merely a slip of the tongue.

Counsel for Medtronic then turned to BrainLAB's FDA filing. When counsel began to discuss the FDA letter, counsel for BrainLAB objected that "this is comparing the devices, not the device [and] the claims." Medtronic's counsel replied, "No, Your Honor, this is—the discussion here is what—this is an admission that was made before the FDA." The court overruled the objection.

Medtronic's counsel then pointed to the portion of BrainLAB's FDA submission entitled "substantial equivalence." Focusing on that exhibit, counsel stated, "They went to the FDA, and they told the FDA that our products are—the substantial equivalence here is between this product—that is, the VectorVision—is similar in design, composition, and function to the StealthStation. Bears directly on what we are doing here today." BrainLAB's counsel objected again that the argument was misleading. The court then instructed the jury that "the comparison is to be made to the claims and the defendant's products. This is not a comparison between [the StealthStation] and the BrainLAB product." Medtronic's counsel responded, "Right, Your Honor, this is an admission."

In its sanctions opinion, the district court concluded that Medtronic's counsel made those statements with the intent to suggest to the jury that liability under the doctrine of equivalents depended on comparing the VectorVision with the StealthStation. The court also concluded that counsel's statement, "this is an admission," was an attempt to undermine the effect of the court's cautionary instruction that the jury was to compare the accused products with the claims. The court characterized Medtronic's use of the FDA submission as "the most egregious" example

of Medtronic's effort to induce the jury to compare the two companies' products for purposes of determining infringement.

There is support in the record for the district court's interpretation of counsel's remarks, including counsel's reference to the "doctrine of equivalents" when discussing the FDA filing in his opening statement, and his comment that the FDA "admission" of substantial equivalence "bears directly on what we are doing here today." In particular, counsel's heavy emphasis on the similarity between the two devices could be interpreted, as the district court interpreted it, as an effort to focus the jury's attention on a comparison of the products rather than a comparison of the accused products and the patents.

On the other hand, the context in which those remarks arose makes it possible to interpret them quite differently. In his closing argument, counsel for BrainLAB focused at some length on his assertion that BrainLAB, not Medtronic, was the true innovator in the field, and that Medtronic was attempting to compete "by copying and fighting in the courtroom." In light of that contention, it was understandable for Medtronic's counsel to point to the FDA submission as evidence that the StealthStation preceded the similar VectorVision device in the U.S. market. Moreover, in his closing argument BrainLAB's counsel downplayed the fact that BrainLAB had sought a license to the Bucholz patent by explaining that after being denied a license, it had devised a "passive" tracking system that was very different from an "active" system. In response to that argument, Medtronic's counsel was able to use the FDA submission to point out that BrainLAB had told the FDA that a passive system is "substantially equivalent" to an active one.

Given that counsel's remarks are subject to differing interpretations, and in light of the deference accorded to trial courts in assessing the conduct of counsel before them for purposes of imposing sanctions, we are not prepared to override the district court's conclusion that the manner in which Medtronic's counsel presented the argument regarding the FDA filing was improper. Nevertheless, that single incident, viewed in context, is not sufficient to support the district court's finding that this case is "exceptional," and it is plainly insufficient to support the broad attorney fee award that the district court entered in this case. The district court's fee award was designed to compensate BrainLAB for the entire cost of its legal representation after the summary judgment phase of the case, based on the court's conclusion that Medtronic unnecessarily prolonged the proceedings after that point. Because we have concluded that Medtronic did not improperly prolong the proceedings by pursuing its claims through trial, and because we disagree with most of the district court's criticisms of Medtronic's litigation tactics, we reverse the trial court's exceptional case finding and vacate the attorney fee award under section 285.

III

In light of our analysis of the district court's ruling under section 285, little remains to be said about the court's ruling under section 1927 and the court's inherent authority. Section 1927 provides that a court may require an attorney to "satisfy personally the excess costs, expenses, and attorneys' fees reasonably incurred" when the attorney "multiplies the proceedings in any case unreasonably and vexatiously." 28 U.S.C. § 1927. The court concluded that McDermott should be jointly liable with Medtronic for the award of fees, costs, and expenses because McDermott should have known, after

the district court entered its claim construction order, that it had no reasonable prospect of prevailing in the case. Because we have held that it was not unreasonable for Medtronic to seek relief even in light of the court's claim construction, it follows a fortiori that McDermott, as Medtronic's counsel, cannot be held liable for continuing to represent Medtronic in that effort. Even if McDermott had concluded that Medtronic's prospects for ultimately prevailing in the litigation were significantly diminished by the court's claim construction order, it was not unreasonable for McDermott to continue to press its client's case in light of the arguments that remained available to it. See Mezibov v. Allen, 411 F.3d 712, 719 (6th Cir. 2005) ("[A]n attorney is ethically bound to make reasonable arguments on behalf of his client, even if the attorney disagrees with them."); Stitt v. Williams, 919 F.2d 516, 528 (9th Cir. 1990) ("[A] lawyer should not be sanctioned for failing to abandon his client's case at the drop of a summary judgment motion, unless there is no colorable defense to the motion that can be advocated and no possible merit to any argument that can be advanced.").

As for the particular instances of alleged litigation misconduct, we have held that several of those items did not constitute misconduct. Regarding counsel's remarks about BrainLAB's FDA submission, we have upheld the district court's conclusion that the manner in which Medtronic's counsel made his argument on that issue was improper. But, just as we have held that those remarks, standing alone, were not sufficient to render this case "exceptional" for purposes of section 285, we also hold that those remarks did not improperly prolong the proceedings, and thus cannot serve as a basis for the entry of an award under section 1927.

As for the district court's invocation of its inherent authority as a basis for an award of fees, costs, and expenses, the Supreme Court has emphasized that a court's inherent powers "must be exercised with restraint and discretion." Chambers v. NASCO, Inc., 501 U.S. 32, 44 (1992). The Court in the Chambers case recognized that a court may assess attorney fees when a party has acted "in bad faith, vexatiously, wantonly, or for oppressive reasons." Id. at 45-46. In the same vein, we have required "a finding of fraud or abuse of the judicial process before a trial court can invoke its inherent sanctioning power," and we have stated that a case must be "sufficiently beyond 'exceptional' within the meaning of section 285 to justify . . . a sanction under the court's inherent power." Amsted Indus., Inc. v. Buckeye Steel Castings Co., 23 F.3d 374, 378-79 (Fed Cir. 1994).

Other courts have taken a similarly narrow view of the role of inherent authority as a basis for imposing sanctions for misconduct. See, e.g., Amlong & Amlong, P.A. v. Denny's, Inc., 500 F.3d 1230, 1252 (11th Cir. 2007) ("[T]he threshold of bad faith conduct for purposes of sanctions under the court's inherent powers is at least as high as the threshold of bad faith conduct for sanctions under § 1927. So sanctions that are impermissible under § 1927 are also impermissible under a district court's inherent powers."); Zapata Hermanos Sucesores, S.A. v. Hearthside Baking Co., 313 F.3d 385, 390-91 (7th Cir. 2002) ("The inherent authority of federal courts to punish misconduct before them is not a grant of authority to do good, rectify shortcomings of the common law . . . or undermine the American rule on the award of attorneys' fees to the prevailing party [I]t is a residual authority, to be exercised sparingly"); Saldana v. Kmart Corp., 260 F.3d 228, 238 (3d Cir. 2001) ("[I]nherent power should be reserved for those

cases in which the conduct of a party or an attorney is egregious and no other basis for sanctions exists."); Jones v. Winnepeaukee Realty, 990 F.2d 1, 4 (1st Cir. 1993) (inherent power to award fees "should be used sparingly and reserved for egregious circumstances").

We have already held that the conduct in this case does not rise to the level required to characterize the case as "exceptional" under section 285 and does not warrant the imposition of sanctions under section 1927. While we have deferred to the district court's judgment that counsel's use of the FDA submission evidence was improper, it is clear to us that, viewed in context, that incident was not sufficiently egregious to justify the imposition of sanctions under the court's inherent authority. We therefore reverse the district court's order and vacate the award of attorney fees, costs, and expenses.

REVERSED.

United States Court of Appeals for the Federal Circuit

2009-1058, -1059

MEDTRONIC NAVIGATION, INC. (formerly known as Surgical Navigation Technologies, Inc.), MEDTRONIC SOFAMOR DANEK, INC., and SOFAMOR DANEK HOLDINGS, INC.,

Plaintiffs-Appellants,

and

ST. LOUIS UNIVERSITY and
TRUSTEES OF DARTMOUTH COLLEGE,

Plaintiffs,

and

MCDERMOTT WILL & EMERY LLP,

Nonparty-Appellant,

v.

BRAINLAB MEDIZINISCHE COMPUTERSYSTEME GMBH,
BRAINLAB AG, BRAINLAB USA, INC., and BRAINLAB, INC.,

Defendants-Appellees.

Appeals from the United States District Court for the District of Colorado in
case no. 98-CV-01072, Senior Judge Richard P. Matsch.

LOURIE, Circuit Judge, concurring.

I fully join the thorough opinion by Judge Bryson which carefully analyzes all the panel's grounds for reversing the district court's sanctions.

However, the court's opinion should not be understood as in any way impeding the desirability and ability of district court judges to control their courtrooms and ensure that substantive arguments are reasonably based.

Many patent suits are brought these days with little chance of success. Appeals to this court from summary judgments of non-infringement based on claim constructions that are affirmed here are testament to the frequency of non-meritorious claims brought in the district courts. Whether those suits are brought because of poor and non-objective appraisals of plaintiffs' prospects or for less worthy motives I do not know. But district court judges are entirely justified, when they encounter frivolous claims and/or excessively hard-ball tactics, in imposing sanctions on offending parties. They are enforcing respect for the courts and the rights of innocent parties to be free of unjustified claims.

In this case, there certainly were a number of instances during the proceedings below where the court felt that counsel had overstepped its bounds with their arguments. We reversed because, as tellingly explained by Judge Bryson, each incident had explanations that the panel believed were exonerating. But our action in this case should not be viewed by district court judges as chilling their taking charge of their courtrooms and ensuring that proper arguments are made against proper opponents.

With those comments, I fully join in the court's opinion and judgment.