

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

SABATINO BIANCO, M.D.,

Plaintiff,

v.

GLOBUS MEDICAL, INC.,

Defendant.

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Case No. 2:12-CV-00147-WCB

**MEMORANDUM OPINION AND ORDER**  
**ON EQUITABLE CLAIMS**

This case was tried to a jury between January 13, 2014, and January 17, 2014. At the conclusion of the trial, the jury returned a verdict finding the defendant Globus Medical, Inc., (“Globus”) liable for misappropriation of trade secrets, but not liable for breach of contract. The jury awarded the plaintiff, Dr. Sabatino Bianco, \$4,295,760 in damages for past trade secret misappropriation. The jury based its damages award on Globus’s sales of three products that are used as “intervertebral spacers” or “intervertebral implants” in spinal surgery. The Globus products, known as Caliber, Caliber-L, and Rise, are designed to be inserted between spinal vertebrae in place of damaged spinal disc material. The spacer is first placed between the vertebrae in collapsed form. A surgeon then uses a tool to expand the spacer until it is at the proper height to maintain the correct distance between the vertebrae. The spacer is left permanently in the patient’s body, where it takes the place of the damaged disc and ideally promotes fusion of the two adjacent vertebrae.

Dr. Bianco's trade secret misappropriation claim was based on his assertion that Globus's Caliber, Caliber-L, and Rise products were based on an idea he gave Globus in June 2007 in the form of a set of drawings. In addition to seeking damages on trade secret misappropriation and several other legal theories, Dr. Bianco claimed that he was entitled under 35 U.S.C. § 256 to be named as an inventor on three of Globus's patents, U.S. Patent Nos. 8,062,375 ("the '375 patent"), 8,518,120 ("the '120 patent"), and 8,491,659 ("the '659 patent").<sup>1</sup> The correction of inventorship issue was left for resolution by the Court. See Shum v. Intel Corp., 499 F.3d 1272, 1279 (Fed. Cir. 2007) (inventorship is an equitable issue triable to the court). This order addresses Dr. Bianco's claim seeking correction of inventorship and his equitable claim of unjust enrichment.

In addressing the correction of inventorship issue, the Court has considered all the evidence that was presented at the portion of the trial that was tried to the jury. In addition, the Court allowed the parties to submit additional materials for the Court to consider in making its findings of fact and conclusions of law on the inventorship question. The parties have now filed those additional materials, which has given rise to objections from each party as to the admissibility of certain portions of the evidence submitted by the other. After having received further briefing on the evidentiary objections, the Court now is prepared to rule on those

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<sup>1</sup> Dr. Bianco asserts that he is an inventor of at least claims 1-20 of the '375 patent, claims 1, 10, and 17 of the '120 patent, and claims 1 and 4 of the '659 patent. However, if a person qualifies as an inventor or co-inventor on at least one claim of a patent, that person is entitled to be named as an inventor on the entire patent. 35 U.S.C. § 116(a); Gemstar-TV Guide Int'l, Inc. v. Int'l Trade Comm'n, 383 F.3d 1352, 1381 (Fed. Cir. 2004) ("co-inventors need not contribute to the subject matter of every claim of the patent"); SmithKline Diagnostics, Inc. v. Helena Labs. Corp., 859 F.2d 878, 888 (Fed. Cir. 1988).

objections and to enter findings of fact and conclusions of law on Dr. Bianco's claim for correction of inventorship.

### **I. Evidentiary Objections on Inventorship**

As its evidentiary submission on the inventorship issue, Globus filed a declaration of its expert, Dr. Boyle C. Cheng, along with various supporting exhibits. For his part, Dr. Bianco filed a declaration of his expert, Dr. Carl McMillin, along with various supporting exhibits.

#### **A. Dr. Bianco's Objections**

Dr. Bianco objects to Dr. Cheng's declaration on several grounds. First, Dr. Bianco objects to the admission of Dr. Cheng's pretrial reports as hearsay (Dr. Bianco objection 1). As the Court previously advised the parties in this case, expert reports, such as those prepared by Dr. Cheng and Dr. McMillan prior to trial, are hearsay and, absent agreement to their admission, are inadmissible. See Engebretsen v. Fairchild Aircraft Corp., 21 F.3d 721, 729 (6th Cir. 1994); Mahnke v. Wash. Metro. Area Transit Auth., 821 F. Supp. 2d 125, 154 (D.D.C. 2011); Skyline Potato Co. v. Hi-Land Potato Co., 2013 WL 311846, at \*15 (D.N.M. Jan. 18, 2013). Such reports are out-of-court statements by witnesses offered for their truth, and therefore fall within the definition of hearsay in Federal Rule of Evidence 801(c). Although expert witnesses are permitted to rely on hearsay to form their opinions, "their testimony is not a vehicle by which evidence that is otherwise inadmissible may be introduced." Presly v. Commercial Moving & Rigging, Inc., 25 A.3d 873, 893 (D.C. 2011). In this case, however, Dr. Cheng has incorporated his pretrial reports by reference as part of his declaration. Therefore, for purposes of the inventorship dispute, the Court will treat Dr. Cheng's expert reports as part of his declaration,

which overcomes the hearsay problem stemming from the fact that the reports are witness statements made out of court.

Second, Dr. Bianco objects to Dr. Cheng's analysis in paragraphs 39-56 of his declaration and, in particular, to Dr. Cheng's opinions that various limitations of the '375 patent are not found in Dr. Bianco's June 2007 drawings, and to Dr. Cheng's ultimate conclusion that the drawings do not support Dr. Bianco's claim that he should be a named inventor on the '375 patent (Dr. Bianco objection 2). Dr. Bianco contends that Dr. Cheng failed to include that analysis and the accompanying opinions and conclusion in his pretrial expert reports and that the portions of his declaration that go beyond the scope of his pretrial reports should be excluded. Although Dr. Cheng's declaration contains a more detailed explanation of his reasons for asserting that Dr. Bianco's drawings do not evince inventorship of the '375 patent, the Court will not exclude paragraphs 39-56 of Dr. Cheng's declaration, because that material consists almost entirely of quotations from and descriptions of the '375 patent. There is little, if anything, in that portion of the declaration that is not readily apparent from simply examining the patent and comparing the patent with Dr. Bianco's drawings. As for Dr. Cheng's opinion that Dr. Bianco's 2007 drawings do not establish that Dr. Bianco should be named as an inventor of the '375 patent, that opinion is contained in Dr. Cheng's September 23, 2013, pretrial report and therefore will not be excluded now.

Third, Dr. Bianco objects that Dr. Cheng's declaration contains a legal opinion that Dr. Bianco is not an inventor of the '375, '120, and '659 patents (Dr. Bianco objection 3). He argues that legal conclusions and opinions are not a proper subject of expert testimony. See Owen v. Kerr-McGee Corp., 698 F.2d 236, 240 (5th Cir. 1983). Although Federal Rule of Evidence 704

provides that an expert's opinion "is not objectionable just because it embraces an ultimate issue," the Fifth Circuit has distinguished between ultimate issues to be decided by the trier of fact, to which an expert may testify, and questions of law, to which an expert may not testify. United States v. Izydore, 167 F.3d 213, 218 (5th Cir. 1999); United States v. Milton, 555 F.2d 1198, 1203 (5th Cir. 1977) ("Rule 704 abolishes the per se rule against testimony regarding ultimate issues of fact. By the same token, however, courts must remain vigilant against the admission of legal conclusions, and an expert witness may not substitute for the court in charging the jury regarding the applicable law."); Raytheon Co. v. Indigo Sys. Corp., 598 F. Supp. 2d 817, 821 (E.D. Tex. 2009).

Although the distinction between opinions on ultimate issues to be decided by the trier of fact and opinions on issues of law can sometimes be a subtle one, it is not necessary for the Court in this case to tease apart the permissible and impermissible opinions offered by Dr. Cheng (and, for that matter, by Dr. Bianco's expert witness, Dr. McMillin) because the inventorship issue is being tried to the Court, not to a jury. The Court is free to ignore any legal opinions by the expert witnesses that do not accord with the Court's understanding of the legal principles that govern the issue of correction of inventorship under 35 U.S.C. § 256. Therefore, the Court will not strike any portion of Dr. Cheng's declaration (or Dr. McMillin's) on this ground, but will simply disregard legal conclusions by those witnesses in ruling on the inventorship claims.

Fourth, Dr. Bianco objects that Dr. Cheng mischaracterized Dr. McMillin's testimony in three respects (Dr. Bianco objections 5, 6, and 7). In particular, Dr. Bianco denies that Dr. McMillin testified (1) that Dr. Bianco did not invent an implant that is "mechanically elevated with sliding ramps"; (2) that Dr. Bianco "simply presented Globus with a problem that Globus

then solved by developing a new sliding ramp-based mechanism of expansion”; and (3) that the device in Dr. Bianco’s 2007 drawings would not work. Disagreement with Dr. Cheng’s characterization of Dr. McMillin’s testimony, however, is not a ground for excluding Dr. Cheng’s statements. To the extent that it matters, the Court can decide for itself whether Dr. Cheng’s interpretation of Dr. McMillin’s testimony is accurate.

Finally, Dr. Bianco objects to Dr. Cheng’s statement that he saw no evidence that Dr. Bianco “collaborated with or was in any manner working with the named inventors” (Dr. Bianco objection 10). According to Dr. Bianco, that conclusion is inconsistent with the evidence that Dr. Bianco “collaborated with Globus’s named inventors through their use of his Invention Disclosure to develop” the Globus instruments. Once again, the disagreement between the parties as to the interpretation of the evidence may be a ground for choosing one version of the facts over another, but it is no basis for altogether excluding the evidence offered by Globus on this issue.<sup>2</sup>

### **B. Globus’s Objections**

Globus objects to Dr. McMillin’s declaration on a number of grounds. First, Globus objects that Dr. McMillin’s analysis of the three patents in his declaration was not found in his pretrial reports and therefore cannot be introduced as evidence at this juncture (Globus objections 1-3). Like Dr. Cheng’s declaration, Dr. McMillin’s declaration expands considerably upon his expert reports in characterizing the respective contributions of Dr. Bianco and the named inventors to the disputed patents. However, the statements in his declaration are based in part on trial testimony from Globus’s witnesses, and the core elements of his analysis are found

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<sup>2</sup> Dr. Bianco has withdrawn his objections 4, 8, 9, and 11 in order to narrow the dispute between the parties as to the admissibility of the respective declarations.

in his pretrial expert reports. Because Dr. McMillin's discussion of the inventorship issue with respect to the three patents in dispute consists largely of a summary of the evidence from Dr. Bianco's point of view, there is no reason to exclude the portions of his declaration that are directed to those patents.

Second, Globus argues that the portion of Dr. McMillin's declaration stating that Dr. Bianco's conception date is "no later than May 2007" should be struck as ungrounded in the evidence (Globus objection 4). At his deposition, Dr. Bianco testified that he came up with the idea for his invention no later than May 2007. While Dr. Bianco has not pointed to any trial testimony setting May 2007 as the conception date for his invention, the evidence showed that he produced the final copy of his drawings to Globus on or about June 28, 2007, and that he had notified Globus of his desire to pass along his ideas at some time before that date. The question whether his conception occurred in May rather than June of 2007 is immaterial to the disposition of the inventorship issue, so the Court need not rely on the challenged portion of Dr. McMillin's declaration with respect to the issue of conception.

Third, Globus objects to Dr. McMillin's statement that "Globus recognized that Dr. Bianco significantly contributed to the claimed inventions of the Globus patents" (Globus objection 5). That statement appears to be a new opinion from Dr. McMillin, not reflected in his pretrial reports. Dr. Bianco's response to Globus's objection is that Dr. McMillin testified at trial that Dr. Bianco referred to his drawing as an "adjustable interbody spacer," and Globus referred to the Caliber product in its engineering drawings as an "adjustable interbody spacer" or an "expandable spacer." That testimony falls far short of being equivalent to Dr. McMillin's broad statement in his declaration that Globus "recognized that Dr. Bianco significantly contributed to

the claimed inventions of the Globus patents.” In his report, Dr. McMillin relies on evidence that Globus representative Gregg Harris promised to compensate Dr. Bianco if Globus decided to commercialize his idea and that, after the launch of Caliber, Mr. Harris admitted that Dr. Bianco had “intellectual property in this” and that Globus would “make this right.” That evidence does not establish that “Globus recognized that [Dr.] Bianco significantly contributed to the claimed inventions of the Globus patents,” since Mr. Harris made no reference to patent rights or any contribution by Dr. Bianco to the Globus patents. The Court will therefore disregard Dr. McMillin’s opinion on that point. However, the factual assertions in paragraph 20 of Dr. McMillin’s declaration, which consist of references to the evidence, are not objectionable and will be considered.

Fourth, Globus objects to Dr. McMillin’s statement that the Globus patents incorporate concepts developed based on Dr. Bianco’s invention disclosure, and that Dr. Bianco contributed to the conception of the claimed subject matter, on the ground that those statements represent new opinions (Globus objections 6 and 7). Dr. McMillin’s statement, however, simply parallels his trial testimony that in his opinion the Caliber and Rise products would not have been developed without Dr. Bianco’s disclosure. Because that testimony was admitted without objection, there is no reason to prohibit Dr. Bianco from relying on it now.

Finally, Globus argues that the Court should strike Dr. McMillin’s statements that some of the named inventors and the Globus design team doctors did not contribute significantly to the conception of the inventions in the patents at issue (Globus objections 8, 9, 10, and 12). The Court will not strike all of those portions of Dr. McMillin’s declaration. In his reports, Dr. McMillin stated that Mr. Suh did not contribute any unique ideas to the Caliber project and that



the only person who could have contributed to Mr. Weiman's use of ramps was Mr. Glerum. The evidence cited by Dr. McMillin in his declaration, moreover, was mainly evidence introduced at trial, which the Court is familiar with and is able to weigh on its own. The Court will, however, disregard Dr. McMillin's opinion that Mr. Glerum did not undertake "extensive experimentation" in connection with the Caliber project, as that opinion was not contained in his pretrial reports.<sup>3</sup>

## **II. Findings of Fact and Conclusions of Law on Inventorship**

The Court now turns to the merits of the dispute over correction of inventorship. In so doing, the Court was required by Seventh Amendment principles to try the legal issues to the jury first. See Dairy Queen, Inc. v. Wood, 369 U.S. 469 (1962); Beacon Theatres, Inc. v. Westover, 359 U.S. 500 (1959); Shum v. Intel Corp., 499 F.3d 1272, 1279 (Fed. Cir. 2007). The findings of the jury, as expressed in its verdict, are to be given binding effect to the extent that they apply to the equitable issues subsequently decided by the Court. See Ward v. Tex. Emp't Comm'n, 823 F.2d 907, 908-09 (5th Cir. 1987); Fogg v. Ashcroft, 254 F.3d 103, 110 (D.C. Cir. 2001); Miller v. Fairchild Indus., Inc., 885 F.2d 498, 507 (9th Cir. 1989); Bouchet v. Nat'l Urban League, Inc., 730 F.2d 799, 803 (D.C. Cir. 1984) (Scalia, J.).

### **A. Findings of Fact**

1. The jury found that Globus misappropriated Dr. Bianco's trade secret, which was represented by the drawings Dr. Bianco gave to Globus in June 2007. Those drawings depict what Dr. Bianco characterizes as an expandable and retractable interbody spacer using a so-

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<sup>3</sup> Dr. Bianco has withdrawn the portion of Dr. McMillin's declaration relating to Globus employee Andy Lee's contribution to the disputed patents. Accordingly, Globus's objections 11 and 13 are moot.

called “scissor-jack” means for expansion, i.e, an expansion means similar to that used in an automobile jack, in which two elements, which are attached to upper and lower plates and are attached to one another by a pivot, swivel about the pivot to increase or decrease the distance between the upper and lower plates.

2. Based on its damages award, it is clear the jury found that the device and features depicted in Dr. Bianco’s drawings constituted a trade secret and that Globus exploited that trade secret in some manner in connection with the process leading to the design and creation of the Caliber, Caliber-L, and Rise products. The Court takes those findings as the starting point for its analysis of the inventorship issue.

3. Globus’s Caliber, Caliber-L, and Rise products are not identical to the inventions claimed in the ’375, ’120, and ’659 patents, but there are substantial similarities between the products and the inventions recited in those patents. Thus, the jury’s finding that Globus misappropriated Dr. Bianco’s trade secret for purposes of the creation of its three commercial products supports Dr. Bianco’s contention that Globus made use of that trade secret in some manner in the process that ultimately led to the issuance of the three patents in dispute.

4. Dr. Bianco contends that he is a co-inventor of all the claims of the ’375 patent. The Court finds, however, that while those claims address the same general subject matter as Dr. Bianco’s drawings, there are significant differences between the inventions claimed in the ’375 patent and the disclosure in the June 2007 drawings. The principal difference is in the mechanism that is used to expand and contract the spacer, or implant. Dr. Bianco’s drawings depict a scissor-jack mechanism, while the claims of the ’375 patent recite a ramp-type structure to expand and contract the implant. The two are quite different. The scissor-jack mechanism,

which was used in certain previously available devices, such as a Medtronic tool that was the focus of much attention at trial, causes the device to expand and contract by rotating the two “scissor” members from a horizontal position, where the device is fully contracted, to a more vertical position, where the device is fully expanded. In the ramp structure, in its simplest form, one inclined plane or wedge is attached to the bottom of the device and faces upward; a second inclined plane or wedge, which is inverted, is attached to the top of the device and faces downward. When the two inclined planes engage one another, the top and bottom of the device are forced apart. When the ramps are not engaged, the device is in its contracted state, and when they are fully engaged, it is in its maximum expanded state.

The claims of the '375 patent make clear that the devices described and recited in the patent are quite different from the device depicted in Dr. Bianco's drawings. Claim 1 of the '375 patent recites that movement of a “translation member,” which is received within the body portion of the implant, causes the device to expand and contract. There is no such “translation member” depicted in Dr. Bianco's drawings.

The claims of the '375 that depend on claim 1 add other features, none of which is found in Dr. Bianco's drawings. Thus, claim 2 recites that the movement of the translation member back and forth within the device causes the device to expand and contract by moving pins along slots cut into the device. Claim 3 recites in detail the structure and operation of the ramped surfaces that cause the expansion and contraction, and claim 4 recites a threaded actuation member connected to the translation member that is received in a threaded opening in the body portion of the device. The remaining dependent claims (5-17) add further details regarding the operation of the device, none of which are depicted in Dr. Bianco's drawings.

Independent claim 18 recites the method of installing the implant. The method entails rotating the actuation member to cause the translation member to move, which in turn forces the ramped surfaces of the translation member against the ramped surfaces of the upper and lower endplates of the device, resulting in the vertical expansion of the implant. Independent claim 20 recites an implant comprising a translation member featuring ramped portions, a threaded actuation member connected to the translation member and received within the body portion of the device, and a plurality of pins and slots that control the expansion and contraction of the device. None of those features are found in Dr. Bianco's drawings.

5. The claims of the '120 patent as to which Dr. Bianco asserts inventorship are similar to those of the '375 patent, in that they require a translation member with angled surfaces that engage the endplates, i.e., a ramp-based system that causes the expansion and contraction of the device. As is the case with the '375 patent, those features are not found in Dr. Bianco's drawings.

6. Dr. Bianco also claims that he is entitled to the status of co-inventor with respect to claims 1 and 4 the '659 patent, which recite methods of installing an intervertebral implant. But again, those claims recite structure that is quite different from the devices depicted in his drawings. They recite placing an implant down an endoscopic tube and rotating the actuation member to expand the device by using a complex set of ramp structures that interact to push the endplates of the device outward. Claim 4 of that patent recites a similarly complex set of ramp structures that interact to expand and contract the device. None of that complex structure is depicted in Dr. Bianco's drawings.

7. It is clear from the evidence that Dr. Bianco did not “collaborate” with the named inventors of the three patents in the conventional sense of that term. Dr. Bianco had no direct contact with any of the named inventors during the process leading to the filing of the three patent applications, and he had no role in the development of the inventions after turning over his drawings to Globus. His role in the development of those patents came only indirectly, by having his drawings reviewed by certain Globus employees who conveyed some of the concepts depicted in the drawings to the persons responsible for the projects that gave rise to the three patents.

8. In the months following Dr. Bianco’s disclosure of his drawings to Globus, a number of persons at Globus saw the drawings. Bill Rhoda, Globus’s vice president of product development, and Andy Lee, Globus’s group manager of technology fabrication, met in early August 2007 to discuss plans to make a prototype custom instrument, or “trial,” based on Dr. Bianco’s drawings. At that meeting, Andy Lee suggested that they substitute a ramp-type structure for the scissor-jack mechanism shown in Dr. Bianco’s drawings as the means for expansion and contraction of the device. They directed the Globus machine shop to make a prototype of the instrument based on their design. The prototype was made, but it was never shown to Dr. Bianco.

9. Globus had previously developed an expandable corpectomy device known as X-Pand, which was commercialized as early as 2005. X-Pand was designed to replace two discs and the vertebral body between them. Prior to 2007, however, Globus had never developed an expandable interbody spacer as a commercial product.

10. In October 2007, Globus began work on an expandable interbody spacer or implant that was intended to be inserted between adjacent vertebra in place of a single disc. Bill Rhoda asked Globus employee Ed Dwyer to work on concepts for expanding an intervertebral implant. Mr. Dwyer prepared a set of drawings that illustrated several different ways that an implant could be made expandable, including the use of ramps.

11. In early 2009, Globus assigned engineers to work on projects that culminated in the development of Globus's Caliber, Caliber-L, and Rise products. Globus employee Chad Glerum was the lead project engineer on the Caliber project. He began working on that project in early 2009 and continued to work on it for about 18 months. His work on that project led to the application for the '375 patent on which Mr. Glerum was a named co-inventor. Mr. Glerum was also a named inventor on the '120 patent. Mr. Glerum testified that he had no direct input from Dr. Bianco with respect to his work on the Caliber project. At the time Mr. Glerum began working on the Caliber project, however, he was given a prototype of an interbody spacer, and he saw a sketch or had a discussion with Bill Rhoda in which Mr. Rhoda suggested the use of the ramp concept. Mr. Glerum also received drawings made by Ed Dwyer when Mr. Dwyer was working on the expandable spacer project beginning in October 2007.

Having been directed by his supervisors to come up with a design for an "expandable spacer," Mr. Glerum considered a "scissor-jack" mechanism to operate the expansion mechanism of the spacer. Ultimately, however, he settled on using sets of ramps sliding against one another to raise and lower the profile of the spacer. The spacer could be expanded or contracted by using a rotating component, driven by a tool, that would force the ramps together (causing the spacer to expand) or apart (causing the spacer to contract).

12. Globus employee Mark Weiman was the lead project engineer on the Rise project and a named inventor on the '120 and '659 patents. He began working on that project in early 2009. The Rise project was intended to develop an endoscopic expandable intervertebral spacer, i.e., a spacer that could be delivered to the proper location in the spine through an endoscopic tube. Weiman testified at trial that he had originally tried to use a “scissor-jack” design, but ultimately used a type of ramp design in which the ramps overlapped in a manner that allowed the spacer to expand from a minimum of 6.8 millimeters in height to a maximum of 14 millimeters. As in the case of Mr. Glerum, there was no evidence that Mr. Weiman saw Dr. Bianco’s drawings. However, Mr. Weiman was aware of work done by Mr. Glerum on the Caliber project.

### **B. Conclusions of Law**

Section 256 of the Patent Act has been interpreted to create a cause of action for interested parties seeking to correct the misjoinder or nonjoinder of an inventor in an issued patent. Eli Lilly & Co. v. Aradigm Corp., 376 F.3d 1352, 1358 (Fed. Cir. 2004); Fina Oil & Chem. Co. v. Ewen, 123 F.3d 1466, 1471 (Fed. Cir. 1997). The burden of showing misjoinder or nonjoinder of inventors is a heavy one; the error must be proved by clear and convincing evidence. Vanderbilt Univ. v. ICOS Corp., 601 F.3d 1297, 1305 (Fed. Cir. 2010); Univ. of Pittsburgh v. Hedrick, 573 F.3d 1290, 1297 (Fed. Cir. 2009); Hess v. Advanced Cardiovascular Sys., Inc., 106 F.3d 976, 980 (Fed. Cir. 1997).

In order to be entitled to be named as a co-inventor on a patent, a person must “contribute[] to the conception of the claimed invention.” Eli Lilly, 376 F.3d at 1359. Conception, which is “the touchstone of inventorship,” Burroughs Wellcome Co. v. Barr Labs.,

Inc., 40 F.3d 1223, 1227 (Fed. Cir. 1994), is “the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention,” Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed. Cir. 1986). “Conception is complete only when the idea is so clearly defined in the inventor’s mind that only ordinary skill would be necessary to reduce the invention to practice.” Burroughs, 40 F.3d at 1228. “Conception requires both the idea of the invention’s structure and possession of an operative method of making it.” Amgen, Inc. v. Chugai Pharm. Co., 927 F.2d 1200, 1206 (Fed. Cir. 1991).

Joint inventorship requires “some element of joint behavior, such as collaboration or working under common direction, one inventor seeing a relevant report and building upon it or hearing another’s suggestion at a meeting.” Kimberly-Clark Corp. v. Procter & Gamble Distributing Co., 973 F.2d 911, 917 (Fed. Cir. 1992). Although each of several joint inventors “need not ‘make the same type or amount of contribution’ to the invention,” Ethicon, Inc. v. U.S. Surgical Corp., 135 F.3d 1456, 1460 (Fed. Cir. 1998) (quoting 35 U.S.C. § 116), that contribution must be “not insignificant in quality, when . . . measured against the dimension of the full invention,” Fina Oil, 123 F.3d at 1473. “Contributions to realizing an invention may not amount to a contribution to conception if they merely explain what was ‘then state of the art,’ if they are too far removed from the real-world realization of an invention, or if they are focused solely on such realization.” Eli Lilly, 376 F.3d at 1359 (citations omitted).

A person does not become entitled to be named as a joint inventor on a patent merely by suggesting a desired goal or result without conceiving of the means by which that goal can be attained. See Garrett Corp. v. United States, 422 F.2d 874, 881 (Ct. Cl. 1970) (“One who merely suggests an idea of a result to be accomplished, rather than the means of accomplishing it, is not



a joint inventor.”). A request to another to create a product that will fulfill a certain function is not conception. See Ethicon, Inc. v. U.S. Surgical Corp., 937 F. Supp. 1015, 1035 (D. Conn.), aff’d, 135 F.3d 1456 (Fed. Cir. 1998). Likewise, it is not sufficient “to show that a party claiming an invention has conceived a result to be obtained; the patentable thing is the means provided and disclosed by him to accomplish that result.” Land v. Dreyer, 155 F.2d 383, 387 (C.C.P.A. 1946). “The suggestion or conception of an idea or appreciation of a result to be accomplished, rather than the means of accomplishing it, particularly when the means constitute an essential part of the invention, does not constitute joint or sole inventorship.” Huck Mfg. Co. v. Textron, Inc., 1975 WL 21108, at \*26 (E.D. Mich. May 2, 1975).

Several of the Federal Circuit’s recent joint inventorship cases illustrate the difficulty of proving that an individual should be added as a co-inventor after the issuance of a patent. In Eli Lilly & Co. v. Aradigm Corp., 376 F.3d 1352 (Fed. Cir. 2004), for example, the Federal Circuit reversed a jury verdict that one of Lilly’s doctors was a co-inventor of Aradigm’s patent. The court found that there was no clear and convincing evidence that Lilly’s doctors had contributed to the conception of an inventive method of “improving the bioavailability of insulin delivered via the lung.”

The patented method in Eli Lilly consisted of aerosolizing the insulin analog lispro, which was known to be more speedily absorbed by the body than normal insulin. The claims at issue recited a limitation “wherein the inhaled insulin analog is insulin lispro which rapidly dissociates in a monomeric form producing a relative bioavailability greater than twice that seen after the inhalation of a similar amount of” normal insulin. 376 F.3d at 1356.

Aradigm's business focused on drug delivery through the inhalation of aerosols. Prior to the issuance of the disputed patent, Lilly and Aradigm held a series of meetings "to discuss a possible collaboration that would take advantage of Lilly's expertise in insulin compounds and Aradigm's expertise in aerosolized drug delivery." 376 F.3d at 1356. During those meetings, Lilly's doctors suggested that Aradigm try lispro in its aerosol delivery devices, presumably because lispro was known to be absorbed into the blood faster when administered subcutaneously. Despite testimony that Lilly's doctors made the recommendation to try lispro, the court found that the doctors had not "mention[ed] that aerosolized lispro should be used to produce a relative bioavailability greater than twice that seen after inhalation of human insulin." Id. at 1364. Without some suggestion that lispro should be used to double the bioavailability relative to normal insulin, the Court held that the mere suggestion to try lispro was not enough to establish that any of the Lilly doctors were joint inventors. See id. at 1363-64.

In Caterpillar Inc. v. Sturman Industries, Inc., 387 F.3d 1358 (Fed. Cir. 2004), Mr. Sturman claimed to be the sole inventor of Caterpillar's patent. After a bench trial on the correction-of-inventorship claims, the district court found that Sturman had presented clear and convincing evidence to rebut the presumption that the Caterpillar engineers named on Caterpillar's patent were the true and only inventors, and it directed that Mr. Sturman be named the sole inventor. Id. at 1365.

The Federal Circuit reversed, holding that Mr. Sturman had not met his burden of proof on the inventorship issue. The claims in Caterpillar's patent "generally cover[ed] a three-way, dual-solenoid, integrated spool valve used to control the flow of working fluid" in a fuel injector unit. 387 F.3d at 1380. The Federal Circuit did not dispute that Mr. Sturman had conceived of a

two-way integrated spool valve. However, the court rejected the district court's finding that Sturman had revealed an idea for a three-way spool valve configuration to Caterpillar in a presentation given to Caterpillar. Id. at 1379, 1380. Although Mr. Sturman's presentation slides did "mention both a '2-way valve' and '3-way valve'" the slides did not "refer to an integrated spool valve. Nor is there any reference to such a valve elsewhere in the presentation." Id. at 1380. Consequently, the court found clear error in the district court's finding that Mr. Sturman had disclosed the idea for a three-way integrated spool valve in his presentation. Id.

Finally, in Nartron Corp. v. Schukra U.S.A., Inc., 558 F.3d 1352 (Fed. Cir. 2009), the district court held that one Benson was a co-inventor of the patent in dispute. The patent was directed to a seat-control module that could be used to introduce massage functionality into existing automobile seats with lumbar support adjusters. One of Benson's arguments was that he had contributed to the inventive controller that was claimed in the patent. As in this case, Benson had given the patentee, "a description detailing the ultimate functions of the control module," and he contended that the patentee "simply carried out the invention by building that control module." Id. at 1359.

Citing Garrett and Eli Lilly, the Federal Circuit reversed. It held that "one who merely suggests an idea of a result to be accomplished, rather than means of accomplishing it, is not a joint inventor." Id. The court also approvingly cited to the district court's statement in Ethicon, Inc. v. U.S. Surgical Corp., 937 F. Supp. 1015, 1035 (D. Conn. 1996), that "[a]n entrepreneur's request to another to create a product that will fulfill a certain function is not conception—even if the entrepreneur supplies continuous inputs on the acceptability of offered products." Nartron, 558 F.3d at 1359.

As the cases discussed above make clear, inventorship requires more than just providing the germ of an idea or the incentive to others to conceive of an invention and reduce it to practice. In this case, even assuming that Dr. Bianco's drawings depicted an expandable spacer or implant, as opposed to an expandable tool, the Court finds that Dr. Bianco's drawings reflected only a general idea for an expandable spacer; they did not embody "a definite and permanent idea of the complete and operative invention," Hybritech, 802 F.2d at 1376, in whole or even in part. Furthermore, the devices disclosed in the Globus patents are significantly different from the device disclosed in Dr. Bianco's drawings.

There is no inconsistency between the jury's finding that Globus misappropriated Dr. Bianco's trade secrets and the Court's ruling that Dr. Bianco is not entitled to be named as an inventor on the '375, '120, and '659 patents. Assuming that the evidence supports a finding that Globus used Dr. Bianco's ideas as a starting point for its Caliber, Caliber-L, and Rise products, that does not mean that his contribution to the patents associated with those products was sufficient to render him a co-inventor.

While Dr. Bianco's drawings depict several features that were ultimately incorporated into the inventions of the '375, '120, and '659 patents, the drawings were largely aspirational in nature, depicting the desired features of the device, not the details of the specific means by which those desired features would be implemented in an actual product. In his declaration, Dr. McMillin itemizes a number of features allegedly shown in Dr. Bianco's drawings that he characterizes as being found in the claims of the disputed patents. In fact, however, while the drawings and the patents both disclose a continuous expandable and retractable spacer, many of the other features referred to by Dr. McMillin are either not clearly specified in the drawings or

are not carried forward into the patents. Thus, the dial and markings shown on the drawings are not claimed in the patents; the threaded screw mechanism that is claimed in the patents is not clearly shown in the drawings; and a locking feature that is claimed in one of the patents is described in the drawings, but only in the most general terms (“opening and closing dial with locking and unlocking mechanism”).

To be sure, Dr. Bianco’s drawings went farther than “merely telling the result he wanted” and then leaving to Globus “the discovery of the means by which it was to be attained.” Int’l Carrier-Call & Television Corp. v. Radio Corp. of Am., 142 F.2d 493, 496 (2d Cir. 1944). Dr. Bianco’s drawings and the description of the device that he gave to Mr. Harris contained some detail about the structure of the device he had in mind. But under well-established patent law principles, more than that is required in order for a would-be inventor to be credited with the conception of the invention necessary to qualify as a sole or joint inventor.

In sum, while the jury’s verdict indicates that it found that Dr. Bianco’s drawings at least motivated the Globus engineers to design an operative device, the path from the drawings to the specific, operable designs disclosed in the patents was a lengthy one. The drawings thus did not demonstrate conception of the inventions claimed in the three patents, as that term is used in patent law. Accordingly, notwithstanding the jury’s verdict on the trade secret misappropriation issue, the Court concludes that Dr. Bianco has not met his burden of showing, by clear and convincing evidence, that he is entitled to be named a co-inventor on any of the disputed patents.

On a final point, Dr. Bianco challenges the right of Mr. Weiman to be named as sole inventor on the ’659 patent and Mr. Suh to be named as a co-inventor on the ’375 and ’120 patents. To the extent that Dr. Bianco’s argument is that if Mr. Weiman and Mr. Suh qualify as

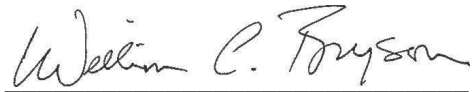
inventors, Dr. Bianco must have been at least a co-inventor on the disputed patents, the Court is not persuaded by that argument. In any event, Dr. Bianco does not have standing to object to the inclusion of Mr. Weiman and Mr. Suh as inventors on the disputed patents. In order to seek correction of inventorship under section 256, an individual must have standing to do so, which means that the individual must have a stake in the outcome that he seeks. See Larson v. Correct Craft, Inc., 569 F.3d 1319, 1325-26 (Fed. Cir. 2009); Chou v. Univ. of Chicago, 254 F.3d 1347, 1355-59 (Fed. Cir. 2001). While Dr. Bianco clearly has a stake in his claim to be a co-inventor, once that issue is decided against him he has no stake whatsoever in whether Mr. Weiman or Mr. Suh are entitled to remain as named inventors on the disputed patents.

### **III. Unjust Enrichment**

At trial, the Court declined to submit Dr. Bianco's claim of unjust enrichment to the jury on the ground that it was an equitable claim for the Court and would be decided by the Court following the jury's verdict. The jury subsequently found that Globus had misappropriated Dr. Bianco's trade secrets and that Dr. Bianco was entitled to damages in the amount of a reasonable royalty. However, the jury denied Dr. Bianco's request for a larger recovery by refusing to grant him the remedy of disgorgement. Based on the jury's decision on that issue, the Court concludes that Dr. Bianco is not entitled to a larger recovery under the theory of unjust enrichment than the jury granted him in the form of a reasonable royalty. Moreover, the Court's independent judgment is that the award of damages in the amount of a reasonable royalty does not result in an inequitably low recovery for Dr. Bianco. For that reason as well, the Court denies relief under Dr. Bianco's unjust enrichment claim.

IT IS SO ORDERED.

SIGNED this 6th day of March, 2014.

A handwritten signature in black ink that reads "William C. Bryson". The signature is written in a cursive style with a horizontal line underneath it.

WILLIAM C. BRYSON  
UNITED STATES CIRCUIT JUDGE