

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

THE JOHNS HOPKINS UNIVERSITY,

Plaintiff,

v.

ALCON LABORATORIES, INC. and
ALCON RESEARCH, LTD.

Defendants.

C. A. No. 15-525 (SLR)

JURY TRIAL DEMANDED

AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff, The Johns Hopkins University (“JHU”), by its attorneys, brings this Complaint for patent infringement against defendants Alcon Laboratories, Inc. (“Alcon Labs”) and Alcon Research, Ltd. (“Alcon Research,” and collectively with Alcon Labs, “Alcon”). JHU alleges as follows:

NATURE OF THE ACTION

1. This is a civil action arising out of Alcon’s patent infringement in violation of the Patent Laws of the United States, 35 U.S.C. §§ 271 and 281-285.

THE PARTIES

2. JHU is a Maryland not-for-profit corporation having its principal place of business at 3400 N. Charles Street, Baltimore, Maryland 21218.

3. On information and belief, Alcon Labs is a Delaware corporation having its principal place of business at P.O Box 6600 S4-1, Fort Worth, Texas 76115 or 6201 South Freeway, Fort Worth, Texas 76134.

4. On information and belief, Alcon Research is a Delaware corporation having its principal place of business at 350 N Saint Paul St., Dallas, Texas 75201 or 6201 South Freeway, Fort Worth, Texas 76134.

JURISDICTION AND VENUE

5. This Court has subject matter jurisdiction over JHU's patent infringement claims under 28 U.S.C. § 1331 and 1338(a).

6. This Court has personal jurisdiction over Alcon Labs and Alcon Research because both are Delaware corporations.

7. On information and belief, Alcon is doing business in this judicial district, providing an additional basis for the Court's exercise of personal jurisdiction over Alcon.

8. Venue is proper in this district under 28 U.S.C. §§ 1391(b), (c), and 1400(b).

THE INVENTION AT ISSUE

9. Since its founding in 1876, JHU's aim has been "the encouragement of research and the advancement of individual scholars, who by their excellence will advance the sciences they pursue, and the society where they dwell."

10. Dr. Eugene de Juan Jr. ("Dr. de Juan") is a world renowned retinal surgeon. Dr. de Juan is one of the named inventors of the patent-at-issue in this case. In 1992, Dr. de Juan joined the faculty of JHU as a professor. Dr. de Juan was subsequently appointed the Joseph E. Green Professor of Ophthalmology at the Wilmer Eye Institute at the JHU School of Medicine. Dr. de Juan also became a co-director of the JHU Vitreoretinal Service and the director of JHU's Microsurgery Advanced Design Laboratory ("MADLAB").

11. Dr. de Juan and his co-inventors (Messrs. Terry Shelley, Aaron Barnes and Patrick Jensen), working at JHU's MADLAB, developed the sutureless ocular surgical

technique and instruments at issue in this case. Helping to fulfill JHU's aim, the patented technique and instruments allow for surgery on the eye without traditional incisions and without sutures. The patented surgical technique and instruments are referred to as "small gauge," due to the incredibly small size of the surgical instruments (often less than 0.5 mm in diameter) inserted into the patient's eye. Compared to the traditional 20-gauge technique, the patented surgical technique and instruments allow for better fluidic stability, faster visual improvement, improved patient comfort and reduced conjunctival damage. Specifically, the patented surgical technique and instruments did away with the need for surgeons to dissect and retract the membrane (the conjunctiva) that covers the whites of the eye (the sclera). The patented surgical technique and instruments largely eliminated the need to suture the sclera or conjunctiva back together at the conclusion of surgery.

12. JHU's MADLAB was funded in part by Bausch & Lomb ("B&L"). B&L was, and still is, a competitor of Alcon in the field of the patented technology. B&L licensed the patented surgical technique and instruments from JHU. B&L developed a platform of products, including the Millenium™ TSV25™ system, to allow surgeons to use the patented surgical technique and instruments. Alcon initially disparaged the patented surgical technique and instruments through its paid surgical consultants. However, when the advantages of the patented surgical technique and instruments became undeniable and its widespread adoption by surgeons inevitable, Alcon quickly adopted it. Unlike B&L, Alcon has never received a license to practice the patented surgical technique and instruments. Alcon has never paid royalties to JHU for the right to use the patented surgical technique and instruments.

13. Alcon's promotional documents and Internet website tout the benefits of the patented surgical technique and instruments. Alcon refers to the patented surgical technique

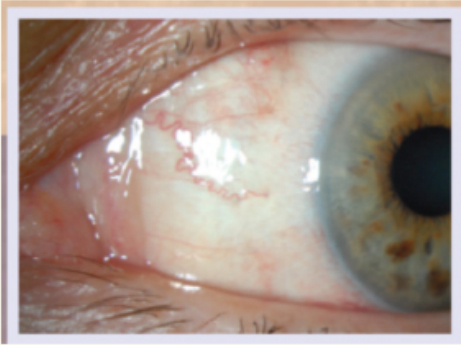
and instruments as “the micro-incision advantage” or “the ALCON[®] MIVS[®] platform.” The patented surgical technique and instruments have substantially displaced the long-entrenched 20-gauge technique and instruments previously promoted and sold by Alcon and others. In contrast to the patented surgical technique and instruments, the 20-gauge technique and instruments required surgeons to dissect the conjunctiva to access the sclera. The 20-gauge technique consequently required surgeons to suture closed the incisions in both the sclera and the conjunctiva at the end of the surgery. Alcon’s comparison of the two techniques can be found at the following Internet address:

<https://www.myalcon.com/products/surgical/mivs/index.shtml> and is reproduced below.

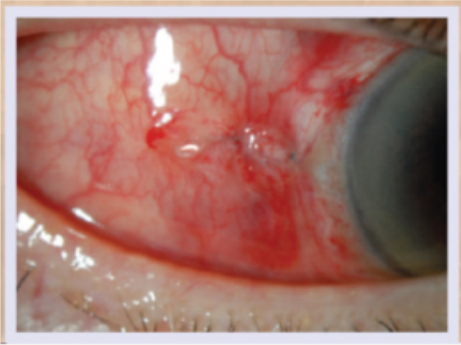
Improved Comfort, Faster Recovery

The micro-incision advantage of the ALCON[®] MIVS[®] platform is highly beneficial to your patients, with enhanced postoperative comfort and faster visual recovery.¹ A smaller incision size can have a big impact:

- More beneficial for your patients than 20-gauge because of increased comfort²
- Helps patients heal faster and more comfortably than with a 20-gauge procedure because of small-gauge incisions^{2,3}
- Allows for reduced corneal astigmatism, less inflammation, and less disruption to the conjunctiva than with 20-gauge procedures⁴



ALCON[®] MIVS[®] procedure – 3 days post-op



20-gauge procedure – 3 days post-op

14. Within less than a decade of its commercial introduction by B&L, the patented surgical technique and instruments have become the *de facto* standard for performing many surgical procedures on the eye. Alcon has profited immensely from its exploitation of the patented surgical technique and instruments. Not being “burdened” with the need to pay for the

use of JHU's patent rights, Alcon quickly took market share from B&L. Consequently, royalties paid to JHU by B&L were significantly diminished.

15. JHU uses royalty payments from commercial entities for technologies developed by its researchers to fund JHU's ongoing research mission.

COUNT 1 – INFRINGEMENT OF THE '848 PATENT

16. JHU incorporates and realleges Paragraphs 1-15 of this Complaint as if repeated verbatim in this Paragraph.

17. On July 18, 2006, the United States Patent and Trademark Office issued United States Patent Number 7,077,848 B1 ("the '848 Patent") to Eugene de Juan, Jr., Terry H. Shelley, Aaron C. Barnes and Patrick S. Jensen. The '848 Patent is entitled "Sutureless Ocular Surgical Methods and Instruments for Use in Such Methods." A true and correct copy of the '848 Patent is attached to this Complaint as Exhibit A. The '848 Patent remains in force and is assigned to JHU. JHU has owned the patent throughout the period of Alcon's infringing acts and still owns the patent.

18. The "Patented Technique" consists of at least: a method for providing access within an eye during an ocular surgical procedure, comprising the steps of (1) providing an entry alignment device that is configured so as to provide an entry aperture in each of the conjunctiva and sclera of the eye and maintaining the entry aperture in each of the conjunctiva and sclera aligned during the surgical procedure, wherein the entry alignment device being provided is sized such that when the entry alignment device is removed from the eye, the entry aperture formed in the conjunctiva and sclera are sealed without the use of sutures, (2) inserting the entry alignment device into the eye so as to form the entry apertures, where said inserting is accomplished without pulling back the conjunctiva, (3) providing a surgical instrument having

an operable end for insertion through the entry aperture in each of the conjunctiva and sclera, a portion of the operable end having a cross-sectional diameter not greater than 25-gauge, and (4) inserting the surgical instrument through the entry apertures into the eye.

19. Alcon has made, used, offered for sale, sold in and/or imported into the United States medical instruments used in ophthalmic surgery. As relevant here, these medical instruments include, among others, 23 Gauge products, 25+[®] Products, EDGEPLUS[®] Valved Trocar Blade, Valved Entry System, 25+[®] Short Products, 27+[®] Products (each described, for example, in an Alcon promotional document entitled “CONSTELLATION[®] Vision System”) (Ex. B), the “ALCON[®] MIVS[®] platform”, and Accurus[®] 25-gauge instrument system (the “Accused Products”). Alcon has infringed, induced infringement and/or contributed to infringement of one or more claims of the ’848 Patent by at least using and encouraging and promoting the use of the Accused Products in the performance of at least its Micro-Incision Vitrectomy Surgery (MIVS) technique (as described, for example, in an Alcon promotional document entitled “Expanding the Scope of MIVS”) (Ex. C), which uses the Patented Technique. Alcon’s infringement is ongoing.

20. The purpose of the Accused Products is to perform the Patented Technique. The Accused Products include, for example the 23G Valved Entry System, 25G Valved Entry System and 27+[®] Valved Entry System (“Accused Entry Systems”) (Ex. B). The other Accused Products cannot be used without the Accused Entry Systems. The Accused Entry Systems are used with a trocar (also accused), which supplies a cutting tip that the other Accused Products do not have. The accused trocar used with Accused Entry Systems is necessary to create a passageway into the eye through the conjunctiva and sclera, which the Accused Entry Systems maintain. The Accused Entry Systems allow instruments to be passed repeatedly in and out of

the eye during surgery. The other Accused Products are also too flexible and fragile to be used effectively without the Accused Entry Systems. The purpose of Patented Technique, as described in the literature, is to eliminate the need for sutures in the conjunctiva and sclera incident to ophthalmic surgery. Eliminating the need for sutures increases patient comfort, decreases operative time, and decreases patient recovery time. No sutures are necessary because the diameter of the Accused products is so small that upon removal from the eye, the conjunctiva and sclera are able to self-seal. From these facts, it must be inferred that the Accused Products are especially made to perform the Patented Technique, intended to perform the Patented Technique, used to perform the Patented Technique, and that they lack substantial noninfringing uses.

21. As detailed in the following paragraphs, Alcon has manufactured, sold and/or offered for sale the Accused Products to hospitals and surgeons for use in the performance of the Patented Technique. It must also be inferred that employees and agents of Alcon performed the Patented Technique as part of product development and testing at least before the Accused Products were first sold. It must be inferred that the Accused Products are especially made to practice the Patented Technique and lack substantial noninfringing uses. It must be inferred that Alcon actively encouraged surgeons to use the Accused Products in the performance of the Patented Technique. It must be inferred that Alcon knew that surgeons using the Accused Products to perform the Patented Technique would directly infringe the claims of the '848 Patent. Alcon has thus directly and indirectly infringed the '848 Patent.

22. **Alcon Was Aware of the '848 Patent:** Alcon was aware of the '848 Patent no later than 2009 when Alcon cited the '848 Patent during prosecution of its own related patents. By way of example, Alcon cited the '848 Patent as prior art as early as 2009 in its U.S. Patents

8,062,260; 8,277,418; 8,343,106; and 8,679,064. Not only do these repeated citations demonstrate that Alcon was aware of the '848 Patent, they create a clear inference that Alcon understood the relationship of the '848 Patent to its own activities and the risk created thereby. For example, Alcon's '260 patent is entitled "Trocar Cannula Device with Retention Feature," a description of some of its Accused Products. Moreover, Alcon's '260 patent also mentions its "Accurus Surgical System 25-Gauge Instruments Portfolio," which includes Accused Products (as described, for example, in the Alcon promotional document entitled "Accurus[®] Surgical System" dated July, 2012) (Ex. D). This creates a clear link between JHU's '848 Patent and Alcon's infringing activity. Still further, Alcon's '260 patent cites articles such as "More surgeons adopting 25-gauge vitrectomy technique," "Tools for 25-gauge vitrectomy open door for other procedures," "Expanding the Options for 25-ga. Vitrectomy," and "Small-Gauge Vitrectomy: The Future is Now." These articles all refer to the growing popularity of JHU's Patented Technique and require an inference that Alcon was aware of this trend, how its Accused Products were being used to perform this technique, and how the promoted technique and Alcon's Accused Products related to JHU's '848 Patent.

23. Similarly, Alcon's '418 patent also demonstrates both Alcon's knowledge of JHU's '848 Patent and also Alcon's awareness of the link between that patent and Alcon's own activities. For example, Alcon's '418 patent states "In various embodiments, a trocar cannula may be configured for insertion into an eye to facilitate insertion and removal of instruments during surgery." This is a reference to the Patented Technique. Alcon's '418 patent also states "[t]he cannula may include a shaft capable of extending into the eye (e.g. through a sclera, conjunctiva, etc)." This is also a reference to the Patented Technique. Alcon's '418 patent also references its accused Accurus 25-gauge instruments and articles concerning the expanding use

of small-gauge instruments for vitrectomy, creating a clear inference that Alcon was aware of the risk posed by '848 Patent to its Accused Products and activities. Alcon's '418 patent also references Bausch & Lomb's Millennium TSV25 product, a product licensed under JHU's '848 Patent that competes with Alcon's infringing Accurus 25-gauge (and other) instruments, further confirming Alcon's awareness of the risks of infringement and a link between those risks and Alcon's activities.

24. The same inferences must be drawn from Alcon's '106 and '064 patents, which make similar statements.

25. Furthermore, Alcon's awareness of the '848 Patent no later than 2009 is confirmed by the fact that Paul Hallen, then National Sales Director, Retina, now Global Head, Retina for Alcon and responsible for the Accused Products, emailed JHU on April 29, 2009 asking whether the '848 Patent was available for licensing. Mr. Hallen also mentioned that he knew and had worked with the '848 Patent's inventor Dr. de Juan and believed the '848 Patent had been licensed to Bausch & Lomb. After JHU responded (on April 30, 2009) that the '848 Patent already had been licensed with a restricted field of use, Alcon continued using the patented invention without a license or claim of right. This further demonstrates that Alcon was aware of the '848 Patent and was aware of an objectively high likelihood that its actions constituted infringement of the '848 Patent.

26. **Alcon's Infringing Activities Are Well Documented in the Literature.** The Accused Products are described as performing the Patented Technique in many articles that are published in journals that are well-known in the industry, including articles authored by Alcon consultants.

27. By way of example, an article entitled “25-Gauge Vitrectomy System: Has the Technology Arrived?” in the April 2003 issue of *Vitreoretinal Surgery & Technology* (Ex. E) describes the Alcon Accurus 25-gauge instrument system, an Accused Product, being used to perform the Patented Technique. *Vitreoretinal Surgery & Technology* “is presented as a professional service of Alcon Laboratories.” The referenced article was written by Dr. Steve Charles, a surgeon who frequently consults for Alcon. The article states that “25-Gauge Vitrectomy System differs from a 20-gauge system in the following ways: . . . Elimination of conjunctival and possibly scleral suturing . . . Cannulas enable repeated insertion of tools through conjunctiva and sclera.” This is a description of the Patented Technique. The article states that surgeries performed with the Accurus system “require no sutures,” and use a “cannula [that] maintains alignment between the conjunctival and scleral wounds.” The article also states that “25-gauge sutureless vitrectomy systems create a paradigm shift to office surgery.”

28. By way of further example, an article entitled “Update on 25-Gauge Vitreoretinal Surgery” in the April 2004 issue of *Vitreoretinal Surgery & Technology* (Ex. F), also written by Alcon consultant Dr. Steve Charles, describes the Alcon Accurus 25-gauge instrument system, an Accused Product, being used to perform the Patented Technique. *Vitreoretinal Surgery & Technology* “is presented as a professional service of Alcon Laboratories.” The article touts the benefits of the Patented Technique and has a section entitled “Advantages of 25-Gauge Sutureless Vitreoretinal Surgery.” Dr. Charles’ opinions in this article are “based on [his] experience performing on approximately 100 patients with the Alcon 25-gauge system since May 2003.” He states that “conjunctival displacement is required for transconjunctival

sutureless surgery,” and notes that the Accurus system uses a “trocar cannula.” These are steps of the Patented Technique.

29. By way of further example, an article entitled “25-Gauge Sutureless Vitrectomy for Retinal Detachment,” by Dr. Steve Charles and Ingrid Scott, in the Winter 2006 issue of Retina Times (Ex. G), describes using Alcon tools to perform 25-gauge sutureless vitrectomies.

30. By way of further example, an article entitled “Surgeons and Patients Benefit from 25-gauge Vitrectomy Surgery” in the Winter 2006 issue of Retina Times (Ex. H) describes the Alcon Accurus 25-gauge instrument system, an Accused Product, being used to perform the Patented Technique. The article states that 30% of retinal surgeons regularly used a 25-gauge vitrector, with the number of surgeons using such a vitrector increasing. It states that “a 25-gauge vitrector offers many advantages, such as eliminating the need for sutures Another advantage is preservation of the conjunctiva . . . [and a] cannula system [that] provides easy entry/exit.” The author expected that “25-gauge vitrectomy will become the dominant technique for vitreoretinal surgery.” The author further noted that two manufacturers made 25-gauge vitreoretinal surgery systems at the time: Alcon and Bausch & Lomb (JHU’s licensee of the ’848 Patent). He also acknowledged that Dr. de Juan, the inventor of the ’848 Patent, was the first to describe the 25-gauge system and cited a paper on transconjunctival sutureless vitrectomy surgery published by Dr. de Juan in 2002. As this article anticipated, 25-gauge vitrectomy has become the dominant technique for vitreoretinal surgery. It must be inferred that Alcon was aware of the industry trends described in this article because of its substantial role therein, and is thus aware that 25-gauge vitrectomy has become the dominant technique for vitreoretinal surgery.

31. By way of further example, in an article entitled “Vitreotomy for Complications of Diabetic Retinopathy,” in the Summer 2005 issue of *Retina Times* (Ex. I), Alcon consultant Dr. Steve Charles states that “virtually all of [his] cases are now done using 25G technology.”

32. By way of further example, the supplement titled “Highlights from the Advanced Vitreoretinal Techniques & Technology Symposium in Hong Kong” to the September/October 2008 issue of *Retina Today* (Ex. J), which was produced under an educational grant from Alcon, describes how the Accused Products were adapted for use in a method that infringes the claims of the ’848 Patent.

33. By way of further example, in the book *Vitreous Microsurgery* (4th Ed. 2007), Alcon consultant Dr. Steve Charles includes a chapter on “25-Gauge, Sutureless, Transconjunctival Vitrectomy” (Ex. K). In this chapter, he notes that the technique was “introduced by DeJuan,” the inventor of the ’848 Patent (p. 85). Dr. Charles goes on to write that the technique “has rapidly become an accepted tool” and that it “depends on . . . smaller diameter instruments.” He also explains that the technique depends on displacing the conjunctiva and using a cannula to “maintain alignment between the offset conjunctival incision and the sclerotomy and facilitating finding the small incisions when inserting tools.” (*Id.*) In the same chapter, Dr. Charles explains that the “purpose of the trocar is to make a 25-gauge sclerotomy and enable simultaneous insertion of flexible 23.5-gauge self-retaining cannula, which fits over the trocar (Fig. 5.1).” Figure 5.1 in turn depicts a “25-gauge trocar-cannula from Alcon.”

34. This passage, written by Alcon’s consultant Dr. Charles, proves that Alcon’s Accused Products are intended to be used and are used to practice the Patented Technique, and it also creates a strong inference that Alcon was aware of and intended this use of the Patented

Technique. Not only is Dr. Charles an Alcon consultant, but he also depicts an accused Alcon product being used to practice the Patented Technique and also thanks Alcon in the book's Acknowledgements.

35. In summary, many industry publications describe the Accused Products being used to perform the Patented Technique. Many of these articles have been written in Alcon-sponsored publications, and many of them have been written by Alcon consultants. They show that Alcon knew that the Accused Products were used to perform the Patented Technique and create a strong inference that Alcon intended the Accused Products to be used to perform the Patented Technique.

Direct Infringement

36. JHU incorporates and realleges paragraph 17 as if set forth verbatim in this paragraph.

37. Alcon, through its employees and agents, has infringed and is still infringing the '848 Patent by performing the Patented Technique.

38. By way of example, it must be inferred from industry practice and necessity that Alcon test its products and perform the Patented Technique during development of the Accused Products. It is not reasonable to believe that Alcon sold the Accused Products for used in surgery on human patients without first performing such testing.

39. Alcon has produced videos that show Accused Products being used to perform the Patented Technique. These videos are available on Alcon's website and are attached as Exs. L, M and N. By way of example, the video entitled "Introducing EDGEPLUS® Valved Cannulas" (Ex. L) is an animated video showing the Patented Technique being performed. Referencing the steps of the Patented Technique as defined in paragraph 18, Step (2) is

performed at the :29 mark of the video, Step (3) is seen at least at the 1:10 mark , Step (4) is performed at the 1:10 mark, and Step (1) is performed at the 1:21 mark. Starting at 1:37, “© Novartis” appears. Novartis is the parent company of Alcon. It must therefore be inferred that Alcon produced the video. Since Alcon produced and made available an animation demonstrating a performance of the Patented Technique, it must be inferred that Alcon performed the Patented Technique.

40. As another example, the video entitled “Valved Cannulas Pearls” (Ex. M) shows a live performance of the Patented Technique using Accused Products. The video “EDGEPLUS® Valved Cannulas” (Ex. N) also shows a live performance of the Patented Technique using Accused Products. Each of these videos is credited to Alcon. These videos were produced by Alcon and are available on Alcon’s website. It therefore must be inferred that Alcon performed the Patented Technique.

41. For the same reasons, it must be inferred that Alcon performed the Patented Technique on cadaver and/or animal eyes during the development of the Accused Products.

Joint Infringement

42. JHU incorporates and realleges paragraphs 36-41 as if set forth verbatim in this paragraph.

43. It must be inferred from industry practice and necessity that Alcon instructed others under its direction or control to perform the Patented Technique during development and testing of the Accused Products.

44. Alcon employees, consultants, or other individuals acting under the direction or control of Alcon developed the Accused Products. While developing the Accused Products, it must be inferred that these employees or consultants or other individuals acting under the

direction or control of Alcon tested the Accused Products and that while testing the Accused Products these employees or consultants or other individuals performed the Patented Technique because that is the purpose and intended use of the Accused Products.

45. It can also be inferred from industry practice and necessity that Alcon employees, consultants, or other individuals acting under the direction or control of Alcon performed the Patented Technique on animal or cadaver eyes while developing and testing the Accused Products. For example, it can be inferred that Alcon's surgical consultants tested the Accused Products on animal or cadaver eyes.

Willful Infringement

46. Alcon has infringed and continues to infringe the claims of the '848 Patent with knowledge of JHU's rights in the '848 Patent. Alcon's acts of infringement of the '848 Patent have been and continue to be willful and deliberate. Alcon acted despite an objectively high likelihood that its actions constituted infringement of a valid patent claim and knew or should have known of this objectively-defined risk of infringement.

47. JHU incorporates and realleges paragraphs 22-41 as if set forth verbatim in this paragraph.

48. As alleged in paragraphs 22-24, Alcon cited the '848 Patent and articles discussing the Accused Products during the prosecution of its own patents related to the Accused Products in 2009. This requires the inference that Alcon was aware of the '848 Patent and was aware of an objectively high risk that the Accused Products infringed the '848 Patent.

49. Alcon's knowledge of the '848 Patent and its relationship to its Accused Products is confirmed by its 2009 email to JHU requesting a license to the '848 Patent from JHU, and its continued use of the '848 Patent after it was told that a license was not available.

50. Alcon's awareness that its Accused Products were being used to perform the Patented Technique, and that they were intended to be so used, is confirmed by the many publications describing the Accused Products in this way, including publications authored by Alcon consultants and sponsored by Alcon.

51. As alleged in paragraphs 26-35, the prevalence of publications in sources well-known in the ophthalmic surgery industry, an industry in which Alcon is one of the largest participants, describing the Accused Products being used to perform the Patented Technique requires the inference that Alcon was aware that the Accused Products may infringe the '848 Patent. Some of the articles were published in publications sponsored by Alcon. Some of the articles were written by surgeons that frequently consult for Alcon. Some of the articles specifically mention that Dr. de Juan, the inventor of the '848 Patent, developed the Patented Technique. The articles were available nationwide and were written over a number of years. Because of Alcon's role in sponsoring some of these publications and the involvement of Alcon consultants in creating them, it can be inferred that Alcon knew of these articles and aided in their creation and/or publication, further demonstrating that Alcon knew that the Accused Products were used to perform the Patented Technique.

52. The above articles prove that Alcon knew of the '848 Patent at the time it began infringing the '848 Patent. They prove that Alcon was aware of an objectively high risk that the Accused Products and Patented Technique infringe the '848 Patent.

Contributory Infringement

53. Alcon has contributorily infringed one or more claims of the '848 Patent in violation of 35 U.S.C. §271(c). As alleged above, Alcon knew of the '848 Patent at the time it began infringing the '848 Patent and certainly no later than 2009. As detailed below, it must be

inferred that Alcon knew the Accused Products constituted a material part of the '848 Patent's invention. It must be inferred that Alcon knew the Accused Products were especially made or especially adapted for use in a method that infringes the claims of the '848 Patent. It must be inferred that Alcon knew the Accused Products were not a staple article or commodity of commerce suitable for substantial non-infringing use. It must be inferred that Alcon knew that surgeons were performing the Patented Technique using the Accused Products. It must be inferred that surgeons have used the Accused Products in a manner that infringes one or more claims of the '848 Patent.

54. Alcon incorporates and realleges paragraphs 22-35 as if set forth verbatim in this paragraph.

55. The Patented Technique is now the industry standard for vitreoretinal surgery. Many articles published in industry journals recognizing that the Patented Technique is the industry standard for vitreoretinal surgery have been written, some by paid Alcon consultants and sponsored by Alcon. Alcon consultants and other surgeons regularly use the Accused Products to perform the Patented Technique.

56. Alcon knew and continues to know that the Patented Technique is the industry standard for vitreoretinal surgery. This is demonstrated by the articles described in paragraphs 26-35 above. Because the Patented Technique is the industry standard, is described in many widely-available articles, some sponsored by Alcon, and is frequently used by Alcon consultants, it must be inferred that Alcon knew that its Accused Products are used to perform the Patented Technique.

57. Alcon has also sponsored symposia teaching the Patented Technique and showing videos of its Accused Products. This requires the inference that Alcon especially made the Accused Products to perform the Patented Technique.

58. Alcon has provided materials to physicians that demonstrate using the Accused Products to perform the Patented Technique. These materials include printed materials and videos. That Alcon distributed these materials requires the inference that Alcon especially made the Accused Products to perform the Patented Technique.

59. JHU incorporates and realleges paragraph 20 as if set forth verbatim in this paragraph.

60. The Accused Products have no substantial use that does not infringe the claims of the '848 Patent, and they are designed to perform the Patented Technique, as described in paragraph 20 above.

Induced Infringement

61. JHU incorporates and realleges paragraphs 22-35 as if set forth verbatim in this paragraph.

62. JHU incorporates and realleges paragraph 20 as if set forth verbatim in this paragraph.

63. Alcon induced infringement of the '848 Patent in violation of 35 U.S.C. §271(b) by selling the Accused Products and encouraging surgeons to use the Accused Products to perform the Patented Technique with the specific intent of encouraging surgeons to infringe the claims of the '848 Patent without a reasonable, good faith belief that its own actions did not induce infringement.

64. As alleged in paragraph 20, the purpose of the Accused Products, is to perform the Patented Technique. That Alcon sells the Accused Products is alone enough to show that Alcon specifically intended others to infringe the '848 Patent. The prevalence of publications written by Alcon consultants published in Alcon-sponsored publications that describe and promote the Accused Products being used to perform the Patented Technique further show that Alcon specifically intended that others infringe the '848 Patent.

65. As alleged above, several articles written by Alcon consultants in *Vitreoretinal Surgery & Technology* describe Accused Products being used to perform the Patented Technique. "Vitreoretinal Surgery & Technology is presented as a professional service of Alcon Laboratories." (See Exs. E, F.)

66. As also alleged above, a book written by Dr. Steve Charles, an Alcon consultant, describes in detail the Accused Products being used to perform the Patented Technique. This book describes the purpose of the Accused Products for performing the Patented Technique. (See Ex. K.)

67. As also alleged above, Alcon has also distributed marketing materials demonstrating the Accused Products being used to perform the Patented Technique and has sponsored symposia teaching and encouraging use of the Patented Technique and showing videos of the Accused Products.

68. As also alleged above, Alcon's citation of the '848 Patent in its own related patents, and its request for a license to the '848 Patent, also demonstrate knowledge and intent that its Accused Products be used to practice the Patented Technique.

Injury

69. Alcon's infringement has injured JHU and JHU is entitled to recover damages adequate to compensate for such infringement in an amount no less than a reasonable royalty for Alcon's use of the invention claimed by the '848 Patent.

70. Alcon's infringement of the '848 Patent has irreparably injured JHU and will continue to injure JHU unless and until the Court enters an injunction prohibiting Alcon and those acting on its behalf from committing further acts of infringement by enjoining the further use, offer for sale, sale, and importation into the United States of the Accused Products for performing the Patented Technique.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff JHU, Inc. prays for the following relief against Alcon:

1. For judgment in favor of JHU that Alcon has infringed and is infringing the '848 Patent;
2. For a permanent injunction prohibiting Alcon, including its officers, agents, employees, and all persons acting in concert or participation with them who receive actual notice of the Court's Order, from committing further acts of infringement of the '848 Patent;
3. For an award of damages for Alcon's infringement of the '848 Patent in the amount of at least a reasonable royalty, together with interest (both pre-and post-judgment), costs and disbursements as fixed by this Court under 35 U.S.C. § 284;
4. For a determination that Alcon's infringement of the '848 Patent has been and is willful;
5. For an award of enhanced damages under 35 U.S.C. § 284;

6. For a determination that this is an exceptional case within the meaning of 35 U.S.C. § 285;
7. For an award to JHU of its reasonable attorneys' fees;
8. For an accounting for damages; and
9. For such other and further relief in law or in equity to which JHU may be justly entitled.

JURY DEMAND

Pursuant to Fed. R. Civ. P. 38(b), JHU demands trial by jury on all issues so triable.

Dated: August 31, 2015

FISH & RICHARDSON P.C.

By: /s/ Douglas E. McCann

Douglas E. McCann (# 3852)
Kelly Allenspach Del Dotto (#5969)
222 Delaware Avenue, 17th Floor
P. O. Box 1114
Wilmington, DE 19899-1114
Email: dmccann@fr.com; kad@fr.com
Telephone: (302) 652-5070
Facsimile: (302) 652-0607

Frank E. Scherkenbach
Kenton W. Freeman, Jr.
One Marina Park Drive
Boston, MA 02210
Email: scherkenbach@fr.com
Telephone: (617) 368-2103
Facsimile: (617) 542-8906

Todd G. Miller
12390 El Camino Real
San Diego, CA 92130
Email: miller@fr.com
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

Attorneys for Plaintiff The Johns Hopkins University