EXHIBIT 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEW WORLD MEDICAL, INC.,
Petitioner,

v.

MICROSURGICAL TECHNOLOGY, INC.,
Patent Owner.

Case IPR2020-01711

U.S. Patent No. 9,358,155

Filed: July 9, 2021

DECLARATION OF GARRY P. CONDON, M.D. IN SUPPORT OF PATENT OWNER'S RESPONSE

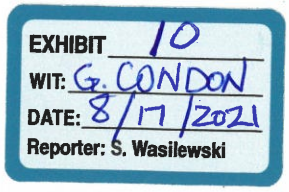

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EXHIBIT LIST

Exhibit	Description
2020	Sworn Affidavit of Manuel Quintana, M.D.
2023	DORLAND'S MEDICAL DICTIONARY SHORTER EDITION abridged from 25th ed. (1980) excerpt at 605 (definition of "section")
2024	BLACKS MEDICAL DICTIONARY 47th ed. (1992) excerpt at 519 (definition of "section")
2025	DORLAND'S POCKET MEDICAL DICTIONARY SHORTER EDITION abridged from 28th ed. (2009) excerpt at 113 (definition of "blunt")

I, Garry P. Condon, M.D., hereby declare as follows:

I. INTRODUCTION

1. I have been retained by Wiley Rein LLP as an expert witness on behalf of MicroSurgical Technology, Inc. ("MST") in support of Patent Owner's Response in this Inter Partes Review ("IPR") of U.S. Patent No. 9,358,155 (Ex. 1001) ("the '155 Patent"). I am being compensated for my time in connection with this IPR at a consulting rate of $575 (USD) per hour. My compensation is in no way dependent on the outcome of this matter.

II. QUALIFICATIONS

2. Attached to this Declaration as Appendix A is my curriculum vitae, which provides a more detailed description of my education, training, and experience in the relevant technology.

III. MATERIALS CONSIDERED

3. I provide opinions in this declaration based on my education, training, background, and experience, as well as the documents I have reviewed to date, including the '155 Patent and the Petition, including the following documents: Declaration of Dr. Peter Netland (Ex. 1003) ("the Netland Declaration"); Manuel Quintana, *Gonioscopic Trabeculotomy. First Results*, in 43 SECOND EUROPEAN GLAUCOMA SYMPOSIUM, DOCUMENTA OPHTHALMOLOGICA PROCEEDINGS SERIES 265 (E.L. Greve, W. Leydhecker, & C. Raitta ed., 1985) (Ex. 1004) ("Quintana");

M. Johnstone *et al.*, "Microsurgery of Schlemm's Canal and the Human Aqueous Outflow System," *Am. J. Ophthalmology* 76(6):906-917 (1973) (Ex. 1005) ("Johnstone"); U.S. Patent No. 4,900,300 (Ex. 1006) ("Lee"); Philipp C. Jacobi *et al.*, "Technique of goniocurettage: a potential treatment for advance chronic open angle glaucoma," 81 *British J. Ophthalmology* 302-07 (1997) (Ex. 1007) ("Jacobi"); Philipp C. Jacobi *et al.*, "Perspectives in trabecular surgery," Eye 2000; 14(Pt 3B)(3b):519-30 (2000) (Ex. 1013) ("Jacobi 2000"); and Sworn Affidavit of Manuel Quintana, M.D. (Ex. 2020). Those documents, and the other materials cited in this declaration, are listed in Appendix B. I have either read the materials listed in Appendix B or reviewed summarized data provided by counsel.

IV. LEGAL STANDARDS

4. I am not a lawyer, nor do I have any legal training. In preparing this declaration, I have relied upon the explanation by counsel of certain patent law concepts, including the legal standard for interpreting claims, as well as those for assessing written description, definiteness, enablement, entitlement of priority, anticipation, and obviousness.

A. Written Description

5. I have been informed by counsel that a claim in a granted patent must be sufficiently supported by the disclosure in the patent's specification, read in the

context of what a person of ordinary skill in the art ("POSA") would have known at the time of the claimed invention. I understand that the basic inquiry for written description is whether the specification provides sufficient information for the person of ordinary skill to recognize that the named inventors possessed the full scope of the claimed invention.

B. Definiteness

6. I have been informed by counsel that, in addition to written description, a patent specification must also describe the claimed invention so as to inform a POSA of the scope of the claimed invention with reasonable certainty. A claim may also be indefinite when it contains words or phrases whose meaning is unclear. Conflicting information between the patent claims and the rest of the patent application, including the figures, may affect that certainty and/or clarity.

C. Enablement

7. I have been informed by counsel that, in addition to written description, a patent specification must also enable a POSA to make and use the full scope of the claimed invention without undue experimentation as of its effective filing date. I understand that multiple factors should be considered when making this determination. These factors include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3)

the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

D. Priority

8. I have been informed by counsel that, for the claims of an application to be entitled to an earlier application's filing date, the earlier application must provide written description and enablement of the claims as of the earlier application's filing date. I have been informed by counsel that the undisputed and applicable priority date in this IPR is June 10, 2003.

E. Anticipation and Obviousness

9. I have been informed by counsel that a claim is anticipated when a single prior art reference discloses, either expressly or inherently, each and every claim element arranged in the order specified by the claim. I also understand that whether a document qualifies as prior art against a claim depends on the effective filing date to which the claim is entitled. I have been informed that even if a claim is not anticipated, it may be invalid for obviousness where a person having ordinary skill in the relevant art at the time the alleged invention was made would have considered the claimed invention as a whole to have been obvious given the

prior art. I understand that a claim may be obvious in light of one or more prior art references.

F. Claim Construction

10. I have been informed by counsel that the Patent Trial and Appeal Board ("PTAB") applies the same claim construction standard used in district courts, where the claims are given their ordinary meaning as understood by one skilled in the art at the time of the invention, informed by the claim language itself, the specification, and the prosecution history. I also understand that "extrinsic evidence"—*i.e.*, evidence other than the patent and prosecution history, such as dictionaries and treatises—can be relevant in determining how a skilled artisan would understand terms of art used in the claims. I have been informed, however, that extrinsic evidence may not be used to contradict the meaning of the claims as described in the intrinsic evidence—*i.e.*, evidence in the claim language itself, the specification, and the prosecution history.

11. I have been informed by counsel that the PTAB, at least as of its April 21, 2021 institution of this IPR, has declined to expressly adopt any proposed construction of the claim language set forth in the Petition, but instead, assigned the claim language its ordinary meaning as it would have been understood by a POSA. Accordingly, in making the findings and reaching the conclusions in this

declaration, I too have applied the ordinary meanings of the claim terms as they would have been understood by a POSA. To the extent that the PTAB adopts specific claim constructions regarding the '155 Patent claims, I reserve the right to amend my findings and conclusions accordingly.

G. Person of Ordinary Skill of the Art

12. In my opinion, a POSA as of the date of invention would have been at least (1) a medical degree and at least two years' experience with treating glaucoma and performing glaucoma surgery; or (2) an undergraduate or graduate degree in biomedical or mechanical engineering and at least five years of work experience in the area of ophthalmology, including familiarity with ophthalmic anatomy and glaucoma surgery. For purposes of my Declaration, I do not disagree with the characterization of a POSA proposed by Petitioner. *See* Ex. 1003 ¶26.

V. SUMMARY OF MY OPINIONS

13. In my opinion, a POSA would have understood that Quintana does not disclose each and every element of the '155 Patent claims, at least because Quintana does not mention or suggest any of the following: (1) the removal of trabecular meshwork ("TM") tissue; (2) the use of a dual blade device; (3) the cutting of the TM by first and second lateral cutting edges to create a strip of TM of defined width; (4) a blunt protruding tip; and (5) a blunt top edge. Furthermore, in my opinion, a POSA reading Quintana would not necessarily have found it to disclose one or both of: (1) a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft; and (2) an *ab interno* procedure within a human eye.

14. I find numerous statements in the Netland Declaration, Ex. 1003, about the prior art identified in the Petition to be erroneous, and I find many of Dr. Netland's conclusions to be based solely on his own speculation, conjecture, and hindsight. I address each of these erroneous statements and unfounded conclusions below.

15. In my opinion, not only would a POSA have found Quintana lacking with respect to elements of the '155 Patent claims, but a POSA would not have

read Lee, Johnstone and/or Jacobi, or applied the general knowledge in the art, to make up for Quintana's shortfalls in this regard. Similarly, not only would a POSA have found Jacobi lacking with respect to elements of the '155 Patent claims, but a POSA would not have read Quintana, Johnstone and/or Lee, or applied the general knowledge in the art, to make up for Jacobi's shortfalls in this regard. Therefore, I conclude that a POSA would not have found that any of the prior art identified in the Petition, alone or in combination, anticipated and/or rendered obvious with respect to the '155 Patent claims according to the applicable legal standards as I understand them.

16. For purposes of this declaration, I do not disagree with the background of the technology as set forth generally in Sections VII.A.-VII.D.2. of the Netland Declaration. *See* Ex. 1003 ¶¶33-54.

VI. DETAILS OF MY OPINIONS

A. Prior Art

17. I have been asked to review the '155 Patent (Ex. 1001) and its prosecution history (Ex. 1002), the Netland Declaration (Ex. 1003), the prior art identified in the Petition (including Exs. 1004-1007, 1013), and the Sworn Affidavit of Manuel Quintana, M.D. (Ex. 2020). Among other things, I have been asked to provide my opinion about what a POSA would have known from the prior

art available on or before the priority date of June 10, 2003, including the general knowledge in the art; to comment on my agreement or disagreement with various statements in the Netland Declaration; and to compare the prior art to the '155 Patent claims according to the applicable legal standards as I understand them.

i. Quintana

18. I have reviewed the publication known as Quintana (Ex. 1004). Quintana is a seven-page journal article containing one of each of a drawing (labeled as Figure 1), a photograph (labeled as Figure 2), a table (labeled as Table 1), and a graph (labeled as Figure 3). Quintana states that it was published in 1985. Ex. 1004 at 3.

19. In my opinion, the most natural reading of Quintana to a POSA would have been the reporting of a new way to move the TM in a patient's eye away from the lumen of Schlemm's Canal by following a tangential approach to the TM with a standard hypodermic needle, the tip of which is bent and angled toward the anterior chamber of the eye, so as to avoid injuring the external wall of Schlemm's Canal. A POSA would have understood that a key concern of Quintana was minimizing the risk of damaging the external wall of Schlemm's Canal during this procedure. A POSA would have recognized that Quintana did not describe a

method or device for removing TM for any reason, including tissue biopsy or patient diagnosis or therapy.

20. Quintana teaches a POSA how to make a trabeculotome by bending the tip of a standard hypodermic needle ("a 0.4 x 15 mm needle, or an insuline-type needle; we bend the tip 20-30° with a needle-holder; a factory-made needle (Morie, France) is even better."). Ex. 1004 at 3. Quintana does not specify exactly what is meant by the needle tip, or where at the needle tip, or along what axis of the needle shaft, the bend is made.

21. Quintana teaches a POSA that the working end of its trabeculotome is the "tip of the needle." In this regard, Quintana reads:

> "The TM is incised with the tip of the needle. From now on, and with the concavity of the tip *towards* the surgeon, the trabeculotome is progressively introduced in the angle. Only the tip of the instrument is introduced into Schlemm's canal, and the TM is stripped slowly, gently and easily from the canal's lumen towards the anterior chamber as the needle progresses in the angle (Fig. 2). Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."

Ex. 1004 at 4 (emphasis in original).

In its Figure 2 legend, Quintana also reads: "Goniophotography at operation. The tip of the needle stripping the trabecular meshwork." Ex. 1004 at 5.

22. In my opinion, a POSA would have understood the Quintana trabeculotome, other than its needle tip bend, to be the same as an unbent standard hypodermic needle, the tip of which has a single bevel with a sharp point and sides. A POSA would have understood that the intended use of a standard hypodermic needle is to penetrate tissue through an incision created by the sharp point at the distal end of the single beveled tip. The drawing labeled as Quintana Figure 1 shows a needle tip consistent with this understanding. Ex. 1004 at 4.

23. In my opinion, a POSA would have determined that the beveled sides of the Quintana trabeculotome, like those of a standard hypodermic needle, may act alongside the sharp point as part of a single blade to allow the needle to create a slit-like incision in the TM. A POSA reading Quintana would not have found the beveled sides of the Quintana trabeculotome to be otherwise sharp or intended to cut tissue. A POSA would have read nothing in Quintana to lend support to Dr. Netland's statement that the beveled sides of the Quintana trabeculotome tip are distinct cutting edges, much less the "first and second lateral cutting edges" described in the '155 Patent. *See* Ex. 1003 ¶120.

24. Dr. Netland's re-drawing of Quintana Figure 1 to depict the beveled sides of the needle tip of the Quintana trabeculotome as lateral cutting edges has no basis in Quintana. *See* Ex. 1003 ¶120. A POSA reading Quintana would not have seen any reference to the beveled sides of the Quintana trabeculotome tip as sharp or any definition of what sharpness might mean in that context. In my opinion, Dr. Netland's assertion that Quintana Figure 1 shows lateral cutting edges is wrong and is based solely on his own speculation, conjecture, and hindsight.

25. In my opinion, Dr. Netland misreads the '155 Patent in reaching his conclusion that the beveled sides of the Quintana trabeculotome tip must be the "first and second lateral cutting edges" described in the '155 Patent.

26. In at least Paragraphs 85-86 of his declaration, Dr. Netland asserts erroneously that the '155 Patent "does not specify how sharp the cutting edges must be"; that "the edges must simply be capable of cutting a strip of tissue"; and that "the patent merely requires that the cutting edges are capable of cutting tissue, regardless of how 'sharp' the cutting edges actually are." Ex. 1003 ¶¶85-86. Dr. Netland refers only to a single sentence from the '155 Patent as the basis for these mistaken assertions and states that "[the '155 Patent] indicates that cutting edges 20, 22 are simply 'sharp and intended to cut tissue.'" Ex. 1003 ¶85 (quoting Ex. 1001 at 3:16-17).

27. The actual sentence in the '155 Patent to which Dr. Netland refers, however, does not say what Dr. Netland says it does. The full context for this statement may be found in the '155 Patent, which reads:

> "[i]n the particular example shown in the drawings, the first and second cutting edges 20, 22 are located on opposite lateral sides of the distal end of the cutting tube 14 and a blunt, protruding tip 24 is located on the bottom of the distal end of the cutting tube. Also, a blunt edge 26 is located at the top of the distal end of the cutting tube 14. Thus, ***only*** *the lateral cutting edges 20, 22 are sharp and intended to cut tissue.*"

Ex. 1001 at 3:10-17 (emphasis added).

In my opinion, a POSA would have understood the '155 Patent to say that only the lateral cutting edges 20, 22 of the disclosed device are sharp (as opposed to, for example, the protruding tip 24 or the top edge 26) and not to say that anything sharp may constitute a cutting edge, as Dr. Netland wrongly asserts. Accordingly, I disagree with Dr. Netland that the beveled sides of the Quintana trabeculotome tip must be the "first and second lateral cutting edges" described in the '155 Patent.

28. Furthermore, the properly quoted '155 Patent disclosure precludes viewing the Quintana trabeculotome as a dual blade device. If the beveled sides of

the Quintana trabeculotome tip were deemed to be "sharp and intended to cut tissue," which they are not, then the entire surface of the single bevel (including the sharp point and sides) must also be deemed a ***single*** cutting edge. This further militates against Dr. Netland's characterizations of the beveled sides of the Quintana trabeculotome tip to be two cutting edges or the Quintana trabeculotome to be a dual blade device, as described in the '155 Patent.

29. Quintana never describes its trabeculotome as a device having cutting edges, much less as a dual blade device. The assertions in the Netland Declaration to the contrary are inconsistent with the plain statements in Quintana, the most natural reading of which to a POSA, in my opinion, would have been simply disclosing a way to move the TM in a patient's eye away from the lumen of Schlemm's Canal by following a tangential approach to the TM using a standard hypodermic needle, the tip of which is bent and angled toward the anterior chamber of the eye, so as to avoid injuring the external wall of Schlemm's Canal. A POSA would not have understood Quintana to disclose a dual blade device having two spaced-apart cutting edges that concurrently cut the TM to create and/or remove a strip of TM of defined width equal to the distance between the cutting edges.

30. Quintana never describes its procedure as involving the removal of TM as set forth in the '155 Patent, nor does Quintana even suggest that its trabeculotome would be capable of being used in any way to remove TM.

31. The Netland Declaration seizes on the words "section" and "stripping" used in Quintana in an attempt to rationalize that TM must have been removed even though Quintana never actually says so. *See, e.g.*, Ex. 1003 ¶127. I disagree that a POSA would have understood Quintana to refer in any way to the removal of TM.

32. In its Abstract, Quintana describes "a surgical method of goniotrabeculotomy which achieves a *section* of the trabecular meshwork without damage to the external wall of Schlemm's canal." Ex. 1004 at 3 (emphasis added). In my opinion, a POSA would have understood Quintana's reference to "section" in this sentence to mean incising or opening the TM, as opposed to creating or removing a strip of TM.

33. Medical dictionaries around the time of Quintana typically referred to alternative meanings for "section." *See, e.g.*, Ex. 2023 at 605 (defining "section" to mean "1. an act of cutting. 2. a cut surface. 3. a segment or subdivision of an organ."); Ex. 2024 at 519 ("(1) A thin slice of a tissue specimen taken for examination under a microscope. (2) The act of cutting in surgery; for example, an

abdominal section is done to explore the abdomen."). Although listed as an alternative definition in these dictionaries, the meaning of "section" as "cutting" is most consistent with other statements in Quintana.

34. Quintana only ever refers to "incising" or "opening" the TM. Ex. 1004 at 3 ("Thus, the rational treatment of the trabecular glaucomas should consist in ***opening*** the trabecular meshwork (TM).") (emphasis added); *id.* at 4 ("The TM is ***incised*** with the tip of the needle.") (emphasis added).

35. Quintana never mentions creating or removing a strip of TM, much less the study of any TM samples by microscopic examination. In addition, the last sentence in Quintana reads: "Further studies are necessary to disclose the 'in vivo' behaviour of the sectioned trabecular meshwork." Ex. 1004 at 8. I note that Dr. Netland does not explain why or how an "in vivo" observation would be relevant if "strips of tissue" from the TM must have been removed in the Quintana procedure, as he asserts. *See* Ex. 1003 ¶103. In my opinion, if that were true, a POSA would have expected Quintana's reference to an *in vitro*, not *in vivo*, study – for example, to examine a removed TM "section" under a microscope. Because Quintana instead refers specifically to the study of the *in vivo* behaviour, the most natural read to a POSA would have been to interpret "sectioned trabecular meshwork" to

refer merely to TM that had been incised or opened, not TM from which a strip(s) of tissue had been created or removed.

36. Dr. Netland ignores the exclusive and consistent use in Quintana of the terms "goniotrabeculotomy," "trabeculotomy," and "goniotomy," referring to incising, cutting, sectioning, opening, or stripping tissue – all fundamentally different procedures than excising or removing tissue that a POSA would equate instead with "goniotrabeculectomy," "trabeculectomy," and "goniectomy," which are familiar terms of art Quintana apparently chose not to use to describe its procedure. Without any support, Dr. Netland offers only a conclusory statement that "[i]t is my expert opinion that despite using different terminology for the procedure, Quintana discloses a goniectomy procedure for excising and removing trabecular meshwork tissue from the eye." Ex. 1003 ¶58. In my opinion, Dr. Netland disregards what Quintana actually says and is substituting his own words, and therefore, I disagree with his unsupported statement.

37. Dr. Netland refers to bent *ab interno* needle goniectomy ("BANG") procedures purportedly published almost 15 years after the priority date of the '155 Patent. *See* Ex. 1003 ¶¶104-105. I have been informed by counsel that the PTAB may ultimately deem this information irrelevant and/or inadmissible. But to me, this shows Dr. Netland's own admission that a POSA describing the removal

of TM would have used the terms "excise" or "excising" (as did the authors of the BANG videos), rather than "section" or "stripping." *See* Ex. 1003 ¶¶104-105.

38. Quintana describes a procedure where "[o]nly the tip of the instrument is introduced into Schlemm's canal, and the TM is ***stripped*** slowly, gently and easily ***from the canal's lumen*** towards the anterior chamber as the needle progresses in the angle (Fig. 2)." Quintana's Figure 2 legend additionally reads: "Goniophotography at operation. The tip of the needle ***stripping*** the trabecular meshwork." In my opinion, a POSA would have understood Quintana's reference to "stripped" and "stripping" in these sentences to mean simply cutting or tearing the TM to move it away from the lumen of Schlemm's Canal while avoiding injuring the external wall of Schlemm's Canal, which was Quintana's key concern, *see* Ex. 1004 at 4 ("This is why we bend the tip and we point it towards the anterior chamber."), and not to mean creating or removing segments or strips of TM, as Dr. Netland asserts, *see*, *e.g.*, Ex. 1003 ¶127.

39. The demonstrative diagrams shown at Paragraph 101 or the purported cartoon rendering of Quintana's Figure 2 photograph shown at Paragraph 102 of the Netland Declaration do not change the fact that Quintana never mentions or suggests creating or removing a strip(s) of TM. In my opinion, Dr. Netland's

conclusions are wrong and are based solely on his own speculation, conjecture, and hindsight.

40. While my conclusion that Quintana does not describe creating or removing a strip of TM set forth in the '155 Patent is based on my own perspective of what a POSA would have understood from a plain reading of Quintana, I note additionally that the author, Dr. Manuel Quintana, has confirmed that neither his work, nor his article reporting that work, ever involved the removal of TM for any reason. *See* Ex. 2020 ¶¶3-7. Moreover, Dr. Quintana's sworn statements directly and completely refute Dr. Netland's assertions about Quintana in this regard. To me, Dr. Quintana's explanation increases my confidence that Quintana does not describe the removal of TM as set forth in the '155 Patent.

41. Although it is my opinion that a POSA would have understood Quintana not to disclose a dual blade device having spaced-apart first and second cutting edges concurrently cutting the TM to create or remove a strip of TM of defined width equal to the distance between the cutting edges, I will address below several additional points of disagreement with the Netland Declaration.

42. In at least Paragraph 146 of his declaration, Dr. Netland asserts that not only must a strip of TM have been created by the Quintana trabeculotome, but that this strip of tissue must have been of a defined width and have resulted from

the concurrent cutting of TM by the beveled sides of the Quintana trabeculotome tip that Dr. Netland characterizes as first and second lateral cutting edges. To me, Dr. Netland is engaging in unsubstantiated, circular reasoning that Quintana's description of "[t]he tip of the needle stripping the trabecular meshwork" must mean that Quintana obtained a strip of TM of certain width necessarily from the concurrent cutting of TM by the beveled sides (and not, for example, the sharp point) of the Quintana trabeculotome tip, which according to Dr. Netland must have been sharp enough to constitute first and second cutting edges merely because there would be no other way to obtain this hypothetical strip of TM of defined width, which Quintana never actually describes.

43. Quintana never mentions or suggests removing TM or that its disclosed trabeculotome would be capable of being used in any way to create and remove a strip of TM, much less to create and remove a strip of TM of defined width. Even assuming that the beveled sides of the Quintana trabeculotome tip could be deemed to be "sharp and intended to cut tissue," which they are not, Quintana never mentions or suggests that the beveled sides (as opposed, for example, to the sharp point) of the Quintana trabeculotome tip can create or remove a strip of TM. Furthermore, nothing in Quintana would teach a POSA that the beveled sides of the Quintana trabeculotome contact the TM, much less

concurrently cut the TM to create a strip of TM of defined width. For example, even if the Quintana trabeculotome could somehow be manipulated in a way to possibly obtain a strip of TM, such a strip of TM would not be of a defined width as described in the '155 Patent unless it was actually cut from the TM ***concurrently*** by the two beveled sides. In other words, cutting or tearing the TM using only the sharp point, or one or the other of the beveled sides, of the Quintana trabeculotome tip (even if possible, which it would not be) would not have resulted in a strip of TM of defined width equal to the distance between the beveled sides (the measurement of which is also unclear).

44. Quintana describes the use of a specific trabeculotome formed by bending a standard hypodermic needle tip 20-30° with a needle-holder. Quintana does not describe or depict precisely where at the needle tip, or along what axis of the needle, the bend is made. A POSA would also have understood that this bend is most likely done by the surgeon by hand for each patient procedure (as opposed to being machined precisely and consistently). In my opinion, Quintana does not necessarily disclose a bend or curve having an angle of at least 30° as described in the '155 Patent.

45. Dr. Netland states that "[t]he term 'ab interno' and the related term 'ab externo' had common well-understood meanings to persons of ordinary skill in

the art at the time of filing of the '155 patent. Persons of ordinary skill in the art would have understood the term 'ab interno' to generally mean ***from the inside*** and would have understood the term 'ab externo' to generally mean ***from the outside.***" Ex. 1003 ¶48 (emphasis in original). I agree with these statements.

46. However, Dr. Netland goes beyond the common meanings to propose a definition of an *ab interno* procedure to mean "entering the eye through the anterior chamber and approaching the trabecular meshwork from within the anterior chamber." Ex. 1003 ¶78. I understand that the PTAB has declined to adopt Dr. Netland's particularized definition of *ab interno* in favor of its ordinary and customary meaning. Paper 11 at 13. The Netland Declaration, however, appears to base its conclusion that Quintana discloses an *ab interno* procedure based solely on Dr. Netland's particularized definition that the PTAB declined to adopt. Ex. 1003 ¶¶122-125.

47. In my opinion, a POSA would not have known definitively whether or not Quintana described an *ab interno* procedure. Quintana never states that its method is *ab interno*. Because nothing in the Quintana text or figures provides a clear indication whether or not the Quintana trabeculotome enters the TM only after first entering Schlemm's Canal, a POSA would be unable to conclude with certainty that Quintana's surgical procedure must be *ab interno*.

48. While my conclusion that Quintana does not conclusively show an *ab interno* procedure is based on my own perspective of what a POSA would have understood from a plain reading of Quintana, I note additionally that the author, Dr. Manuel Quintana, has stated that his article describes "a surgical approach where the needle tip enters and follows Schlemm's Canal before tearing the TM." Ex. 2020 ¶6. To the extent this was the case, such a procedure would not have been *ab interno* by definition.

49. I, therefore, disagree with Dr. Netland's statement in his declaration that "[t]he ***only way*** to interpret Quintana's description is that the procedure is an 'ab interno' method. Persons of ordinary skill in the art could not interpret Quintana's procedure as an 'ab externo' method." *See* Ex. 1003 ¶125 (emphasis in original). Dr. Netland has created a false dichotomy where Quintana must teach either an *ab interno* or an *ab externo* procedure, despite his own recognition that Quintana is silent or less than clear about whether the described procedure is *ab interno* or *ab externo*. *See* Ex. 1003 ¶126 ("Quintana discloses inserting the needle 'through the scleral side of the limbus' [and] in no case does Quintana describe making an incision on the exterior of the eye to access Schlemm's Canal as would be required in an 'ab externo' procedure."). Dr. Netland strains to conclude that

Quintana's method must be *ab interno* based solely on his own particularized definition of that term, which the PTAB expressly declined to adopt.

50. That a POSA would have understood a method to be either *ab interno* or *ab externo* is a different matter than whether a POSA would have known with reasonable certainty from reading an article which of these types of procedure is described. In my opinion, Quintana teaches neither because a POSA is without sufficient information to tell for sure whether Quintana's procedure is *ab interno* or *ab externo*. Dr. Netland's conclusion that Quintana's procedure must be *ab interno* is wrong and is based solely on his own speculation, conjecture, and hindsight.

51. Quintana does not disclose a blunt protruding tip according to the '155 Patent. Applying the ordinary and customary meaning of this claim term, the sharp point of the Quintana trabeculotome, which (like that of a standard hypodermic needle) is intended to create a slit-like incision, is not blunt.

52. Furthermore, even if Quintana discloses a blunt protruding tip, which it does not, Quintana does not provide any clear indication that this element would extend in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft. The Quintana trabeculotome is described only as being formed by bending a standard hypodermic needle tip 20-30° with a

needle-holder. Quintana does not describe or depict precisely where at the needle tip, or along what axis of the needle, the bend is made. A POSA would also have understood that this bend is most likely done by the surgeon by hand for each patient procedure (as opposed to being machined precisely and consistently). Quintana, therefore, does not necessarily disclose a bend or curve having an angle of a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft as described in the '155 Patent.

53. Quintana also does not disclose a blunt top edge according to the '155 Patent. Because the distal tip of the Quintana trabeculotome (like that of a standard hypodermic needle) is intended to create a slit-like incision, *see* Ex. 1004 at 3-4; Ex. 1003 ¶100, even assuming that the proximal portion of the single bevel of the Quintana trabeculotome could be viewed as a top edge, which it may not in my opinion, a POSA would have understood that this indistinct part of the Quintana trabeculotome is not blunt, according to the ordinary and customary meaning of this claim term.

ii. Johnstone

54. I have reviewed the publication known as Johnstone (Ex. 1005).

55. Unlike Quintana, Lee, Jacobi, and Jacobi 2000, Johnstone does not report work done with patients. Instead, Johnstone discloses the quantitative aqueous perfusion and light and scanning electron microscopy of postmortem enucleated human eyes to compare the flow rates achieved by known clinical ab externo probe and suture trabeculotomy procedures versus a known diathermy trabeculotomy technique. Ex. 1005 at 12.

56. Johnstone reads: "The present study was carried out to compare in postmortem enucleated human eyes the changes induced in the structure and function of the trabecular meshwork and Schlemm's canal aqueous outflow system by internal cystotome trabeculotomy, by ab externo probing of Schlemm's canal with nylon and metal probes, and by causing the probes to rupture from the canal into the anterior chamber as in current clinical practice." Ex. 1005 at 1. Johnstone also reads: "Internal cystotome trabeculotomy was performed in 180 degrees of the circumference in the same manner as by Grant and by Ellingsen and Grant. This was done through the 5-mm corneal trephine opening under direct visualization with an operating microscope at 25 to 40× magnification, employing a cystotome with the point oriented at right angles to the shaft. We inserted the point from within the anterior chamber through the trabecular meshwork to Schlemm's canal, and passed it along in the canal circumferentially, with the blunt surface of the

cystotome facing the external wall of Schlemm's canal. In this position it presented a triangular shape with its base facing the external wall of Schlemm's canal, and a sharp slanting edge engaging the trabecular meshwork. This was intended to cut the inner wall of the canal and the trabecular sheets from within the canal while limiting damage to the external wall of the canal. Usually the cystotome pushed a strip of meshwork ahead of itself in the manner of a plow." Ex. 1005 at 2 (internal citations omitted).

iii. Lee

57. I have reviewed the publication known as Lee (Ex. 1006).

58. I have read the PTAB's discussion of Lee at Section III.F.1. of the April 21, 2021 Institution Decision in this IPR. Paper 11 at 23-25. I agree generally with the PTAB's statements about Lee.

59. I have read the prosecution history of the '155 Patent (Ex. 1002). In particular, I am aware that in the patent examiner's statement of reasons for allowance, the patent examiner stated the following about Lee:

> "The closest prior art includes Lee USP 4,900,300 which teaches a method of excising a piece of tissue from the anterior chamber angle (trabecular meshwork and the inner wall of Schlemm's Canal) utilizing a device with a U-shaped cutting edge (14) which has dual

blades corresponding to the U-shape. However, Lee fails to teach a device comprising a shaft and a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft. It would not have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Lee to include using a device with a shaft and a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

Ex. 1002 at 320-321.

I agree with the patent examiner that Lee does not teach a device comprising a shaft and a blunt protruding tip that extends from a distal end of the shaft to form *a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft*. Based on my understanding of the applicable patent law standards, I also agree with the patent examiner that it would not have been obvious to a POSA at the time the invention was made to modify the method of Lee to include using a device with a shaft and a

blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft.

60. I disagree, however, with the patent examiner's statement that Lee teaches a method of excising a piece of tissue from the anterior chamber angle (trabecular meshwork and the inner wall of Schlemm's Canal) utilizing a device with a U-shaped cutting edge (14), which has ***dual blades*** corresponding to the U-shape. I disagree with the patent examiner to the extent her statement was characterizing the Lee device as a dual blade device. Lee itself clearly reads otherwise.

61. First, Lee reads unambiguously:

> "The forward end of shaft 10 comprises a parabolic, bowl-like cavity 12 having a sharpened rim which creates a ***single, more or less U-shaped cutting edge*** 14 integral with the sides of shaft 10. The cutting edge is approximately 2.0 mm. in length and about 0.3 to 0.4 mm. in width. The distal end 15 of cutting edge 14 protrudes a distance of about 0.5 to 1.0 mm. for ease of tissue penetration and cutting. The cutting edge is softly rounded at its distal end and is generally parabolic in shape in order to avoid damage to the outer wall of Schlemm's Canal."

Ex. 1006 at 4 (4:38-48).

Second, Lee is consistent in describing its cutting blade as a singular element. *See, e.g.*, Ex. 1006 at 1 (Abstract) ("The surgical instrument of this invention comprises in combination; a hollow tapered shaft having ***a*** cutting edge at one end as an integral part thereof; a retractable stylet contained within the hollow interior of the tapered shaft; and an irrigation port running along the outside of the tapered shaft.") (emphasis added); *id.* at 5 (6:28-30) ("***The*** cutting edge 14 is used to excise the angle tissue 40 for approximately one-third of the angle circumference.") (emphasis added).

62. In my opinion, a POSA would have understood Lee to disclose a device having a ***single*** cutting blade. Although this U-shaped cutting blade is shown to have a sharpened rim with side edges and a distal tip, Lee never describes or depicts its cutting blade as anything other than an unitary element, which differs from the "first and second cutting edges being separated by a distance D" of the dual blade device described in the '155 Patent.

63. I similarly disagree with Dr. Netland's repeated statements asserting that Lee disclosed a dual blade device. *See, e.g.*, Ex. 1003 ¶¶175, 218.

64. Because the Lee device comprises "a parabolic, bowl like cavity 12 having a sharpened rim which creates a ***single***, more or less U-shaped cutting edge

14 integral with the sides of shaft 10," in my opinion, a POSA would have understood that trying to remove TM using the Lee device would not have necessarily created a strip of tissue of ***defined width*** due solely to the ***concurrent*** cutting of the TM by the side edges of the single, U-shaped cutting blade. Therefore, neither Quintana or Lee alone, nor in combination with each other, would have taught or motivated a POSA to make a device for removing TM in the manner described in the '155 Patent with any reasonable expectation of success, according to the applicable legal standards as I understand them.

iv. Jacobi and Jacobi 2000

65. I have reviewed the publications known as Jacobi (Ex. 1007) and Jacobi 2000 (Ex. 1013).

66. I have read the PTAB's discussion of Jacobi at Section III.G.1. of the April 21, 2021 Institution Decision in this IPR. Paper 11 at 26-28. I agree generally with the PTAB's statements about Jacobi.

67. I have read the prosecution history of the '155 Patent (Ex. 1002). In particular, I am aware that Jacobi was known to the patent examiner through at least the identification of Jacobi in a March 9, 2015 Information Disclosure Statement. Ex. 1002 at 52. Jacobi 2000 appears to be a review article that addresses information similar to that disclosed in Jacobi with different figures.

68. I disagree with Dr. Netland's repeated statements asserting that Jacobi disclosed a dual blade device. *See, e.g.*, Ex. 1003 ¶¶216-218. Jacobi never mentions or suggests a device designed to cut the TM, much less a device with dual cutting blades.

69. First, Jacobi reads:

> "The present study was carried out to introduce a new approach in glaucoma surgery aiming to ***scrape*** pathologically altered trabecular meshwork off the scleral sulcus in six patients suffering from uncontrolled IOP due to glaucoma absolutum. The aim of the surgical procedure was to ***abrade rather than incise*** uveal meshwork; this novel method, therefore, is termed goniocurettage."

Ex. 1007 at 2 (emphasis added).

In my opinion, a POSA would have understood Jacobi to promote a method using a device to scrape or abrade the TM to obtain ragged strings of TM instead of cutting the TM to create a strip of TM of defined width. Indeed, this reading most naturally aligns with Jacobi's further description that "[i]n order to ***peel off*** trabecular meshwork the 'scraper' was lightly passed over 2–3 clock hours to either side at the nasal circumference of the anterior chamber angle in sweeping movements (Fig 2). . . . Gonioscopically, ***strings*** of trabecular tissue could be

observed intraoperatively to be removed by goniocurettage, leaving a 'denuded' grey-white scleral sulcus." Ex. 1007 at 2 (emphasis added). Jacobi essentially disclaims excising TM using a cutting instrument in favor of removing TM using a scraping tool. Based on my understanding of the applicable patent law standards, Jacobi encourages a POSA to use its described gonioscraper, *i.e.*, teaches away from a cutting implement, including the dual blade device described in the '155 Patent.

70. Second, Jacobi reads:

> "The 'gonioscraper' consists of a small handle and a slightly convex-shaped arm for intraocular use and very much resembles a cyclodialysis spatula. However, the tip of the instrument is shaped as a tiny bowl with 300 µm diameter and with its edges sharpened (Fig 1). In order to abrade clockwise and anticlockwise the scoop is angulated vertically at 90 degrees to the left and right, respectively."

Ex. 1007 at 2.

This description contradicts Dr. Netland's characterization of the Jacobi gonioscraper as a dual blade device having, among other things, first and second lateral cutting edges that create a strip of tissue of defined width from the concurrent cutting of the TM. Ex. 1003 at ¶220.

71. In my opinion, a POSA would not have considered the sharpened edges of the bowl of the Jacobi gonioscraper to be a cutting blade. But even if that were the case, a POSA would have understood this to be a ***single*** cutting blade. Although the bowl of the Jacobi device is shown to have sharpened edges, Jacobi never describes or depicts the edges of this bowl as anything other than an unitary element, which differs from the "first and second lateral cutting edges formed at stationary side-by-side locations on the shaft" of the dual blade device described in the '155 Patent.

72. Dr. Netland's re-drawing of Jacobi Figure 1 to depict first and second cutting edges has no support in Jacobi and, in my opinion, is wrong and is based solely on his own speculation, conjecture, and hindsight. *See* Ex. 1003 ¶¶231, 233.

73. In at least Paragraphs 85-86 of his declaration, Dr. Netland asserts erroneously that the '155 Patent "does not specify how sharp the cutting edges must be"; that "the edges must simply be capable of cutting a strip of tissue"; and that "the patent merely requires that the cutting edges are capable of cutting tissue, regardless of how 'sharp' the cutting edges actually are." Ex. 1003 ¶¶85-86. Dr. Netland seems to base these mistaken conclusions solely on the flawed premise that "[the '155 Patent] indicates that cutting edges 20, 22 are simply 'sharp and intended to cut tissue.'" *See* Ex. 1003 ¶85 (quoting '155 Patent at 3:16-17).

74. The actual sentence in the '155 Patent to which Dr. Netland cites as the sole basis for his erroneous proposition, however, does not say what Dr. Netland says it does. Dr. Netland appears to have cropped and misquoted this sentence out of context. Dr. Netland wrongly disregarded and contravened the actual '155 Patent disclosure, which reads:

> "[i]n the particular example shown in the drawings, the first and second cutting edges 20, 22 are located on opposite lateral sides of the distal end of the cutting tube 14 and a blunt, protruding tip 24 is located on the bottom of the distal end of the cutting tube. Also, a blunt edge 26 is located at the top of the distal end of the cutting tube 14. Thus, ***only*** *the lateral cutting edges 20, 22 are sharp and intended to cut tissue*."

Ex. 1001 at 3:10-17 (emphasis added).

In my opinion, a POSA would have understood the '155 Patent to say that only the lateral cutting edges 20, 22 of the disclosed device are sharp (as opposed to, for example, the blunt protruding tip) and not to say that anything sharp may constitute a cutting edge, as Dr. Netland wrongly asserts. Accordingly, I disagree with Dr. Netland that the Jacobi gonioscraper must have the "first and second lateral cutting edges" described in the '155 Patent.

75. Jacobi does not describe or depict a device having "a blunt protruding tip."

76. Nor does Jacobi describe or depict a device having "a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft." *See* Ex. 1001 at 9 (6:47-50). I disagree with Dr. Netland's assertion that "Jacobi's gonioscraper has a number of 'bends or curves' that meet this claim limitation." Ex. 1003 ¶226; *see also id.* ¶112. Jacobi expressly describes its gonioscraper as a device that includes "a slightly convex-shaped arm for intraocular use and very much resembles a cyclodialysis spatula." Ex. 1007 at 2. Jacobi never describes or depicts a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft. Dr. Netland re-draws Jacobi Figure 2 to depict a hypothetical bend or curve in the otherwise blurry image. Ex. 1003 ¶226. In so doing, Dr. Netland seems to acknowledge that a POSA would not have recognized a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft, but instead (at most) would

have seen a device that very much resembles a cyclodialysis spatula, just as Jacobi described. In my opinion, a POSA would not have understood Jacobi to describe a device with a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft, as described in the '155 Patent.

77. Dr. Netland next asserts, without any support, that a later Jacobi article, Philipp C. Jacobi *et al.*, "Perspectives in trabecular surgery," Eye 2000; Jacobi 2000 (Ex. 1013), describes the same device from the earlier Jacobi article. *See* Ex. 1003 ¶227. Without more information, I am unable to agree with Dr. Netland's assertion in this regard. What I do read, however, is that Jacobi 2000 similarly describes its gonioscraper as closely resembling a cyclodialysis spatula. Ex. 1013 at 2.

78. The Netland Declaration re-drawing of Jacobi 2000 Figure 1(b) to depict three separate bends or curves in the Jacobi 2000 device is baseless. *See* Ex. 1003 ¶227. Dr. Netland also asserts:

> "Based on this image, persons of ordinary skill in the art would appreciate that the device has 'bends or curves' as claimed. In my opinion, bend or curve (3) must be included in the device due to the

> generally downwardly sloping plane of the portion of the convex-shaped arm near the bowl-shaped tip (*i.e.*, blunt protruding tip). This allows the tip to be oriented properly to allow the dual cutting edges of the bowl to contact and cut TM during performance of Jacobi's method."

Id.

I disagree with each of these assertions. First, even if a POSA would have recognized three bends or curves in Jacobi Figure 1(b) as Dr. Netland asserts, which I dispute, a POSA would not have understood this figure to show a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft. Indeed, only Dr. Netland's "bend or curve (1)" might possibly exhibit an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft, and in the Jacobi 2000 device, this bend or curve does not relate to a blunt protruding tip (even according to Dr. Netland). Second, there is nothing in Jacobi 2000, including Figure 1(b), to support the existence of Dr. Netland's hypothetical "bend or curve (3)," much less a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of

the shaft. In my opinion, Dr. Netland's assertion that Jacobi 2000 Figure 1(b) shows a device with a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft is wrong and is based solely on his own speculation, conjecture, and hindsight.

79. Because the Jacobi gonioscraper comprises a device having a "tip . . . shaped as a tiny bowl with 300 μm diameter and with its edges sharpened," in my opinion, a POSA would have understood that trying to remove TM using the Jacobi device would not have necessarily created a strip of TM of ***defined width*** due solely to the ***concurrent*** cutting of the TM, if any, by the single sharpened edge of the bowl. Therefore, neither Quintana or Jacobi alone, nor in combination with each other, would have taught or motivated a POSA to build a device for creating a strip of TM in the manner described in the '155 Patent with any reasonable expectation of success, according to the applicable legal standards as I understand them.

B. The Netland Declaration

80. In addition to the statements in the Netland Declaration addressed above regarding the prior art identified in the Petition, I have the following comments regarding other statements about which I have concerns and/or disagree.

81. In at least Paragraphs 56-57 of his declaration, Dr. Netland coins the term "excisional goniotomy" and applies this perspective in at least Paragraphs 55-57 to his review of Quintana, Lee, and Jacobi. I note that Dr. Netland never cites any reference, prior art or otherwise, where "excisional goniotomy" is defined or adopted. In my opinion, a POSA would not have known or used the term "excisional goniotomy" on or before the June 10, 2003 priority date. A POSA would not have applied this terminology in reading the prior art identified in the Petition.

82. In at least Paragraph 62 of his declaration, Dr. Netland states that "the inventors of the '155 patent claim invention of a device that is, in effect, a needle having a tip bent at an angle." I disagree with this statement. Nowhere in the '155 Patent or its prosecution history have I found any mention or suggestion that the claimed dual blade device may be achieved by simply bending a hypodermic needle. Indeed, in at least Paragraph 64, Dr. Netland acknowledges, as he must, that the '155 Patent clearly teaches that the claimed dual blade device is made from "standard tubing (e.g., stainless steel hypodermic tubing) . . . cut to form the lateral cutting edges 20, 22, the protruding tip 24 and the blunt top edge 26." Ex. 1001 at 4:62-65. These specific structures cannot be obtained by simply bending a hypodermic needle. In my opinion, a POSA would not have read the hypodermic

tubing described in the '155 Patent to refer to, or to suggest using, a hypodermic needle instead.

83. Furthermore, I disagree with Dr. Netland's statement in at least Paragraph 63 of his declaration that "[a]ccording to the patent, 'bends or curves' can be made in the tube 14 by using angular cut out(s) 30 or by simply bending the tube." In my opinion "simply bending the tube," as Dr. Netland proposes, is inconsistent with the clear teaching of the '155 Patent, which reads that while "the tube 14 may be directly bent to form said curves or bends without the use of angular cut outs(s) 30 . . . . the use of angular cut-out(s) 30 allow a tube 10 of a given diameter to incorporate a curve or angle in a more compact form than is possible by bending tubing 10 of a given diameter to said curve or angle without kinking or damaging tube 10." *Id.* at 5:6-14. A POSA, therefore, would understand the '155 Patent to recommend an angular cut-out(s), especially where the desired angle of bend or curve might kink or damage the tube, such as with an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft.

84. In at least Paragraphs 167-170, 226-229, and 259-260 of his declaration, Dr. Netland asserts that a POSA would have been motivated to vary the angle of a purported bend or curve in the Quintana and Jacobi devices to arrive

at a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve having a particular angle, including one of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft (as '155 Patent Claim 1), less than approximately 90 degrees (as in '155 Patent Claim 9), and approximately 90 degrees (as in '155 Patent Claim 10). I disagree with each of these assertions.

85. With respect to Quintana, the specific trabeculotome is described only as being formed by bending a standard hypodermic needle tip 20-30° with a needle-holder. Quintana does not describe or depict precisely where at the needle tip, or along what axis of the needle, the bend is made. A POSA would also have understood that this bend is most likely done by the surgeon by hand for each patient procedure (as opposed to being machined precisely and consistently). In my opinion, Quintana does not necessarily disclose a bend or curve having an angle of at least 30° as described in the '155 Patent. In any event, the sole purpose of this bend according to Quintana is to avoid damaging the external wall of Schlemm's Canal. Ex. 1004 at 4 ("Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."). Based on this statement in Quintana, a POSA would have been advised against changing the angle of the needle tip bend for fear

that using any such altered device to perform Quintana's procedure might reduce the effectiveness of the Quintana trabeculotome, including its ability to move along the lumen of Schlemm's Canal in a tangential approach, and/or heighten the risk of undesirable injury to the external wall of Schlemm's Canal. For these same reasons, a POSA would be advised against increasing the angle of the needle tip bend, especially approaching 90 degrees because the device would no longer be usable in the specific surgical approach described in Quintana. None of the prior art cited in the Petition supports Dr. Netland's contrary assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

86. In particular, Dr. Netland's assertion that a POSA, reading Quintana and Johnstone together, would have bent the needle tip of the Quintana trabeculotome to approximately 90 degrees is baseless. *See* Ex. 1003 ¶¶166-167. Johnstone's acknowledgement that its internal cystotome trabeculotomy damaged the external wall of Schlemm's Canal runs directly counter to Quintana's sole objective in describing a surgical approach to the TM with a tool that minimized the risk of injury to the external wall of Schlemm's Canal. *Compare* Ex. 1005 at 11 ("the microscopic studies showed that this procedure not only opened the canal to the anterior chamber but it also affected the external wall and the internal

structures of the canal, tending to tear and fray them . . . .") with Ex. 1004 at 4 ("Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."). A POSA, reading Quintana and Johnstone together, therefore would have been advised against bending the needle tip of the Quintana trabeculotome at a greater angle and, instead, would have been motivated to keep the Quintana trabeculotome as-is in this respect. Dr. Netland's attempts to justify his hindsight reconstruction of an altered Quintana trabeculotome are contrary to what Quintana actually tells a POSA. For example, by asserting that a hypothetical Quintana trabeculotome with a needle tip bent at approximately 90 degrees might still work if used (1) in a perpendicular approach or (2) in a tangential approach so long as the syringe portion of the device is repositioned outside the patient's eye, Dr. Netland ignores Quintana's choice of a tangential versus perpendicular approach and makes up using the hypothetical altered device in a way that Quintana never mentions or suggests. *See* Ex. 1003 ¶168. None of the prior art cited in the Petition supports Dr. Netland's assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

87. With respect to Jacobi and Jacobi 2000, the specific gonioscraper is described only as very much or closely resembling a cyclodialysis spatula. *See* Ex. 1007 at 2; Ex. 1013 at 2. Neither Jacobi nor Jacobi 2000 describe or depict a blunt protruding tip that extends from a distal end of the shaft to form ***any*** bend or curve, much less a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft (as '155 Patent Claim 4). Furthermore, I disagree with Dr. Netland that Quintana and Johnstone would have motivated a POSA to alter the gonioscraper of either Jacobi or Jacobi 2000 to form such a bend or curve. *See* Ex. 1003 ¶¶259-260.

88. In my opinion, a POSA would have understood that Jacobi and Jacobi 2000 both acknowledged that the use of their gonioscrapers injured the external wall of Schlemm's Canal and that both were otherwise unconcerned with this result. *See* Ex. 1007 at 3 ("From light microscopy of histological sections (Fig 3A and B) it was evident that in addition to peeling and disruption of the trabecular meshwork the gonioscraper caused damage to septa and endothelium of the external wall of Schlemm's canal, and disruption along the posterior wall of the canal."); Ex. 1013 at 2 ("From light microscopy of histological sections it is evident that, in addition to the peeling of the trabecular meshwork, goniocurettage also causes damage to intracanalicular septa and the endothelium of the external

wall of Schlemm's canal, and in some instances a disruption along the posterior wall of Schlemm's canal."). Similarly, a POSA would have understood that Johnstone acknowledged that its internal cystotome trabeculotomy damaged the external wall of Schlemm's Canal. *See* Ex. 1005 at 11 ("the microscopic studies showed that this procedure not only opened the canal to the anterior chamber but it also affected the external wall and the internal structures of the canal, tending to tear and fray them . . . ."). In my opinion, a POSA, reading Jacobi, Jacobi 2000, and Johnstone together with Quintana, would not have been motivated to alter the gonioscraper of either Jacobi or Jacobi 2000 to form any bend or a curve, much less a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft (as '155 Patent Claim 4).

89. In my opinion, because a POSA would have understood Quintana to be keenly concerned with describing a surgical approach to the TM with a tool that minimized the risk of injury to the external wall of Schlemm's Canal, Ex. 1004 at 4 ("Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."), a POSA would have understood the Quintana trabeculotome to be a different device designed for a different purpose than the Jacobi and

Jacobi 2000 gonioscrapers. A POSA, therefore, would have understood, reading Jacobi, Jacobi 2000, Johnstone, and Quintana together, that there was no need to alter the Jacobi or Jacobi 2000 gonioscraper to form any bend or curve, much less a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft (as '155 Patent Claim 4). None of the prior art cited in the Petition supports Dr. Netland's contrary assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

90. Lee, Jacobi, and the other prior art cited in the Petition never mention or suggest the use of a hypodermic needle or similar device to create or remove a strip of TM. I have read nothing in these references that, alone or in combination, would have motivated a POSA to alter a standard hypodermic needle by sharpening the beveled sides of the needle tip to try to create cutting edges to create or remove a strip of TM. I disagree with Dr. Netland that a POSA would have been motivated by Lee, Jacobi, or any of the other prior art cited in the Petition to sharpen the beveled sides of the needle tip of the Quintana trabeculotome to try to create cutting edges to remove a strip of TM. *See* Ex. 1003 ¶174. A POSA would have been wary of modifying the Quintana trabeculotome for fear that using any such altered device used to perform Quintana's procedure

would heighten the risk of undesirable injury to the external wall of Schlemm's Canal. None of the prior art cited in the Petition supports Dr. Netland's assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

C. Application of the Prior Art to the '155 Patent Claims

91. For ease of reference, and for purposes of the following statements of my declaration only, I refer to the '155 Patent claims according to the format used by the Netland Declaration (for example, parsing Claim 1 into claim elements 1a-j).

i. Petition Ground 1 (Claims 1-3 and 6-7 are not anticipated by Quintana)

92. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A dual blade device useable for performing an ab intern [sic] procedure within a human eye to remove a strip of trabecular meshwork tissue, said device comprising." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

93. At Paragraphs 119-128, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-53 above.

94. As an initial matter, I note that Dr. Netland's assertions with respect to Quintana in this regard depend on his own particularized definition of *ab interno*, which the PTAB expressly declined to adopt. In my opinion, a POSA would not have known definitively whether or not Quintana described an *ab interno* procedure because Quintana does not provide enough information to be clear on this point. In any event, Quintana never mentions or suggest removing a strip of TM.

95. In my opinion, a POSA would have understood Quintana to describe using the sharp point of the needle tip of the Quintana trabeculotome to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. A POSA would have understood that Quintana never describes the beveled sides of the standard hypodermic needle tip of the Quintana trabeculotome as sharp, capable of cutting tissue, or to be lateral cutting edges and never describes the Quintana trabeculotome as a dual blade device.

96. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element d as referenced in the Netland Declaration): "a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve

of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

97. At Paragraphs 131-134, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶51-52 above.

98. Quintana never describes the distal tip of its trabeculotome as blunt. In my opinion, a POSA would have understood that the sharp point of the needle tip of the Quintana trabeculotome is not a blunt protruding tip as described in the '155 Patent. I disagree with Dr. Netland's contrary opinion, which I understand to be based solely on a proposed interpretation of "blunt protruding tip" to mean the distal tip of any needle or needle-like device regardless of how sharp or dull the tip actually is. *See* Ex. 1003 ¶¶131-132. I have been informed by counsel that the PTAB has at least preliminarily rejected this proposed special definition in favor of the ordinary and customary meaning of those words to a POSA, who would have understood "blunt" to mean "not sharp." Ex. 2025. Because the distal tips of the Quintana trabeculotome and a standard hypodermic needle are both intended to create a slit-like incision, *see* Ex. 1004 at 3-4; Ex. 1003 ¶100, in my opinion, a POSA would have understood that the distal tip of the Quintana trabeculotome is not blunt.

99. Furthermore, even if Quintana discloses a blunt protruding tip, which it does not, in my opinion, a POSA would not have known definitively whether or not Quintana described a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft. The Quintana trabeculotome is described only as being formed by bending a standard hypodermic needle tip 20-30° with a needle-holder. Quintana does not describe or depict precisely where at the needle tip, or along what axis of the needle, the bend is made. A POSA would also have understood that this bend is most likely done by the surgeon by hand for each patient procedure (as opposed to being machined precisely and consistently). In my opinion, Quintana does not necessarily disclose a bend or curve having an angle of a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft as described in the '155 Patent.

100. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element e as referenced in the Netland Declaration): "first and second lateral cutting edges formed at stationary side-by-side locations on the shaft, said first and second lateral cutting edges facing in the same lateral direction as the blunt

protruding tip and being spaced apart such that an area exists between the first and second lateral cutting edges."

101. At Paragraphs 135-139, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43 above.

102. A POSA would have understood that Quintana never describes the beveled sides of the standard hypodermic needle tip of the Quintana trabeculotome as sharp, capable of cutting tissue, or to be cutting edges and never describes the Quintana trabeculotome as a dual blade device. A POSA, therefore, would also have understood that Quintana cannot have first and second lateral cutting edges. However, even if one were to assume Dr. Netland's erroneous premise that the beveled sides of the needle tip of the Quintana trabeculotome are cutting edges, which they are not, then by Dr. Netland's definition, the entire surface of the needle bevel (including the sharp point) then would be a single cutting edge. In that case, a POSA would have understood that Quintana does not disclose "first and second lateral cutting edges formed at stationary side-by-side locations on the shaft."

103. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element f as referenced in the Netland Declaration): "a blunt top edge that extends

transversely from a top end of the first lateral cutting edge to a top end of the second lateral cutting edge and traverses above the area between the first and second lateral cutting edges."

104. At Paragraphs 140-141, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 53 above.

105. Quintana never identifies or refers to a top edge of its device, much less characterizing the proximal portion of the single bevel of the Quintana trabeculotome as a blunt top edge. In my opinion, a POSA would not have understood the Quintana trabeculotome tip to have a blunt top edge as described in the '155 Patent. I disagree with Dr. Netland's contrary opinion, which I understand to be based solely on a proposed interpretation of "blunt top edge" to mean the proximal portion of the single bevel of any needle or needle-like device regardless of how sharp or dull that proximal portion actually is. *See* Ex. 1003 ¶¶140-141. I have been informed by counsel that the PTAB has at least preliminarily rejected in favor of the ordinary and customary meaning of that word to a POSA, who would have understood "blunt" to mean "not sharp." Ex. 2025. There is no basis in Quintana to support Dr. Netland's arbitrary re-drawing of Quintana Figure 1 to depict a blunt top edge. Because the distal tip of the Quintana trabeculotome (like

that of a standard hypodermic needle) is intended to create a slit-like incision, *see* Ex. 1004 at 3-4; Ex. 1003 ¶100, even assuming that the proximal portion of the single bevel of the Quintana trabeculotome could be viewed as a top edge, which it may not in my opinion, a POSA would have understood that this indistinct part of the Quintana trabeculotome is not blunt.

106. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element g as referenced in the Netland Declaration): "the blunt protruding tip having a transverse width, a top surface, a bottom surface and a terminal end, the transverse width being narrowest at the terminal end."

107. At Paragraphs 142-143, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶51-52, 98-99 above.

108. Quintana does not disclose a blunt protruding tip. Furthermore, even if the Quintana trabeculotome had a blunt protruding tip, which it does not, I disagree with Dr. Netland that any such tip has a transverse width being narrowest at the terminal end. *See* Ex. 1003 ¶¶142-143. Dr. Netland never explains why or how a POSA would necessarily measure the transverse width of the Quintana trabeculotome tip only in the way Dr. Netland proposes. For example, one could reasonably view the transverse width as narrowest at the proximal portion of the

single bevel of the Quintana trabeculotome that Dr. Netland otherwise depicts as the blunt top edge. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which is wrong and is based solely on his own speculation, conjecture, and hindsight.

109. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element h as referenced in the Netland Declaration): "the blunt protruding tip being below the area between the first and second lateral cutting edges and protruding in the lateral direction beyond the first and second lateral cutting edges such that tissue may pass over the top surface of the blunt protruding tip before coming into contact with the first and second lateral cutting edges."

110. At Paragraphs 144-146, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

111. Quintana neither discloses first and second lateral cutting edges nor a blunt protruding tip. Furthermore, even if the Quintana trabeculotome had these elements, which it does not, I disagree with Dr. Netland that a POSA would have understood the Quintana trabeculotome to be configured such that "tissue may pass over the top surface of the blunt protruding tip before coming into contact with the first and second lateral cutting edges." *See* Ex. 1003 ¶¶142-143. In particular, Dr.

Netland's depiction of the inner lumen of the Quintana trabeculotome as the top surface of his proposed blunt protruding tip, *see* Ex. 1003 ¶142, is inconsistent with Dr. Netland's assertion that the TM must contact the beveled sides of the Quintana trabeculotome only after first passing over the inner lumen. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which is wrong and is based solely on his own speculation, conjecture, and hindsight.

112. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element i as referenced in the Netland Declaration): "a distal portion of the shaft and the blunt protruding tip being sized to pass through an incision formed in the eye by a 1.5 mm slit knife."

113. At Paragraphs 147-148, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶51-52, 98-99 above.

114. Here too, Quintana does not disclose a blunt protruding tip.

115. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element j as referenced in the Netland Declaration): "the blunt protruding tip being further sized to fit within Schlemm's Canal of the human eye and, when so positioned, to be advanceable through Schlemm's Canal with trabecular meshwork

tissue passing over its top surface and into contact with the first and second lateral cutting edges."

116. At Paragraphs 149-150, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

117. Quintana neither discloses first and second lateral cutting edges nor a blunt protruding tip. Furthermore, even if the Quintana trabeculotome had these elements, which it does not, I disagree with Dr. Netland that a POSA would have understood the Quintana trabeculotome to be configured such that the purported blunt protruding tip is "advanceable through Schlemm's Canal with trabecular meshwork tissue passing over the top surface and into contact with the first and second lateral cutting edges." *See* Ex. 1003 ¶¶149-150. In particular, Dr. Netland's depiction of the inner lumen of the Quintana trabeculotome as the top surface of his proposed blunt protruding tip, *see* Ex. 1003 ¶142, is inconsistent with Dr. Netland's assertion that the TM must contact the beveled sides of the Quintana trabeculotome only after first passing over the inner lumen. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which is wrong and is based solely on his own speculation, conjecture, and hindsight.

118. Claim 2 of the '155 Patent reads: "A device according to claim 1 wherein the first and second lateral cutting edges are spaced apart by a distance D and cut a strip of trabecular meshwork tissue having a width W that is substantially equal to distance D."

119. At Paragraphs 151-153, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43 above.

120. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 2 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 2.

121. Even if one were to assume Dr. Netland's erroneous premise that the beveled sides of the needle tip of the Quintana trabeculotome are first and second lateral cutting edges, which they are not, then a POSA would have understood that Quintana does not disclose that the purported first and second lateral cutting edges "cut a strip of trabecular meshwork tissue having a width W that is substantially equal to distance D," which is substantially equal to the distance between the purported first and second lateral cutting edges. Quintana never describes or

depicts contacting the TM with the beveled sides of the needle tip of the Quintana trabeculotome, much less concurrently cutting the TM with these beveled sides to form a strip of TM of defined width. In my opinion, a POSA reading Quintana would not have been reasonably certain that this was the case. For example, TM removed by tearing, or by excision using only the sharp point of the needle tip, would not be a strip of TM of defined width.

122. Claim 3 of the '155 Patent reads: "A device according to claim 1 useable for cutting a sector of trabecular meshwork tissue having a length of 2 to 10 millimeters."

123. At Paragraphs 154-157, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43 above.

124. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 3 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 3.

125. In addition, Quintana never describes its procedure as involving cutting the TM to form a strip of tissue, much less a strip of tissue of defined

width. I disagree with Dr. Netland's assertion that Quintana's disclosure of a 100-120° trabeculotomy in any way describes cutting the TM to form a strip of tissue, much less that it must equate to a tissue strip length of about 2 to 10 millimeters. *See* Ex. 1003 ¶157. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which, in my opinion, is wrong and is based solely on his own speculation, conjecture, and hindsight.

126. Claim 6 of the '155 Patent reads: "A device according to claim 1 wherein the device is manually operable to remove a strip of trabecular meshwork tissue."

127. At Paragraphs 158-159, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43 above.

128. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 6 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 6. Furthermore, Quintana never mentions or suggests removing a strip of TM in any manner.

129. Claim 7 of the '155 Patent reads: "A device according claim 1 wherein the shaft comprises a tube having at least one lumen."

130. At Paragraphs 160-161, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43 above. I also note that Dr. Netland appears to refer to the same portion of the Quintana trabeculotome as both the top surface of the blunt protruding tip of Claims 1-7 and the inner lumen according to Claim 7. *See* Ex. 1003 ¶¶142, 161.

ii. Petition Ground 2 (Claims 4-5 are not obvious over Quintana in view of the knowledge in the art)

131. Claim 4 of the '155 Patent reads: "A device according to claim 1 wherein the bottom surface of the blunt protruding tip extends at an angle of approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

132. At Paragraphs 163-168, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-44, 51-52, 98-99 above.

133. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 4 incorporates each and every element of Claim 1. For the

same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 4.

134. In addition, for at least the reasons set forth in ¶¶84-86 above, a POSA would not have been motivated by any of the cited prior art in the Petition or the general knowledge in the art to modify the Quintana trabeculotome by bending the needle tip at an angle greater than what Quintana disclosed, and certainly not to approximately 90 degrees, as Dr. Netland asserts. *See* Ex. 1003 ¶¶165-168. Rather, a POSA reading Quintana together with Johnstone (the only reference upon which Dr. Netland relies for this argument), in my opinion, would have come to an understanding exactly opposite from Dr. Netland's.

135. First, a POSA would have understood that Quintana's sole reason for bending the needle tip of its trabeculotome is to avoid damaging the external wall of Schlemm's Canal. *See* Ex. 1004 at 4 ("Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."). Second, a POSA would have understood that Johnstone acknowledges that its internal cystotome trabeculotomy damaged the external wall of Schlemm's Canal, but that Johnstone is otherwise unconcerned with this result. *See* Ex. 1005 at 11 ("the microscopic studies showed that this procedure not only opened the canal to the anterior

chamber but it also affected the external wall and the internal structures of the canal, tending to tear and fray them . . . ."). Given these inconsistent teachings in Quintana and Johnstone, a POSA would have been wary of modifying the angle of the needle tip bend in the Quintana trabeculotome for fear that using any such altered device used to perform Quintana's procedure would heighten the risk of undesirable injury to the external wall of Schlemm's Canal. Moreover, a POSA would have been advised especially against modifying the angle of the needle tip bend in the Quintana trabeculotome, as Dr. Netland asserts, to be approximately 90 degrees based on Johnstone, which specifically described damaging the external wall of Schlemm's Canal with its internal cystotome trabeculotomy.

136. Dr. Netland's attempts to justify his hindsight reconstruction of an altered Quintana trabeculotome are contrary to what Quintana actually tells a POSA. For example, by asserting that a hypothetical Quintana trabeculotome with a needle tip bent at approximately 90 degrees might still work if used (1) in a perpendicular approach or (2) in a tangential approach so long as the syringe portion of the device is repositioned outside the patient's eye, Dr. Netland ignores Quintana's choice of a tangential versus perpendicular approach and makes up using the hypothetical altered device in a way that Quintana never mentions or suggests. *See* Ex. 1003 ¶168. None of the prior art cited in the Petition supports Dr.

Netland's assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

137. Claim 5 of the '155 Patent reads: "A system comprising a device according to claim 1 in combination with a 1.5 mm slit knife for forming said incision in the human eye."

138. At Paragraphs 169-171, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43 above.

139. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 5 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 5.

140. Quintana describes using a trabeculotome formed from a standard hypodermic needle to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. In my opinion, a POSA would have understood that the Quintana method and device

already work for their intended purposes without any need for additional cutting tool. I note that Dr. Netland does not explain why or how a POSA would have viewed combining a 1.5 mm slit knife to be an improvement with respect to Quintana.

iii. Petition Ground 3 (Claims 1-3 and 6-7 are not obvious over Quintana in view of Lee)

141. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A dual blade device useable for performing an ab intern [sic] procedure within a human eye to remove a strip of trabecular meshwork tissue, said device comprising" I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

142. At Paragraphs 173-182, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶14-53, 57-64, 90 above.

143. As an initial matter, I note that Dr. Netland's assertions with respect to both Quintana and Lee in this regard depend on his own particularized definition of *ab interno*, which the PTAB expressly declined to adopt. In my opinion, a POSA would not have known definitively whether or not Quintana described an *ab*

interno procedure because Quintana does not provide enough information to be clear on this point. In addition, I disagree that a POSA would have been motivated with a reasonable expectation of success to modify the Quintana method in accordance with Lee as Dr. Netland asserts, *see* Ex. 1003 ¶181 ("by inserting the needle through the cornea, rather than the 'scleral side of the limbus'"). There is nothing in Quintana to indicate or suggest that the described approach would be improved, or otherwise more desirable, in any way by substituting the Lee approach, for example. Dr. Netland's assertions in this regard, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight. In any event, Quintana never mentions or suggest removing a strip of TM.

144. In my opinion, a POSA would have understood Quintana to describe using the sharp point of the needle tip of the Quintana trabeculotome to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. A POSA would have understood that Quintana never describes the beveled sides of the standard hypodermic needle tip of the Quintana trabeculotome as sharp, capable of cutting tissue, or to be cutting edges and never describes the Quintana trabeculotome as a dual blade device. In addition, there is nothing in Lee or any of the other prior art cited in the Petition

that would have motivated a POSA to sharpen the beveled sides of the needle tip of the Quintana trabeculotome to try to create cutting edges capable of being used to remove TM.

145. For at least the reasons set forth in ¶¶59-64, I disagree with the patent examiner's characterization during the prosecution of the '729 Patent application of Lee as having disclosed a dual blade device. In my opinion, a POSA instead would have understood Lee to disclose a device having a single cutting blade. Although this U-shaped cutting blade is shown to have a sharpened rim with side edges and a distal tip, Lee never describes or depicts its cutting blade as anything other than an unitary element, which differs from the "first and second lateral cutting edges" of the dual blade device described in the '155 Patent. Therefore, a POSA reading Quintana and Lee together would not have been motivated to arrive at a method of using a dual blade device for creating and/or removing TM in the manner described in the '155 Patent with any reasonable expectation of success, according to the applicable legal standards as I understand them.

146. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element d as referenced in the Netland Declaration): "a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve

of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

147. At Paragraphs 185-186, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

148. Quintana describes using a trabeculotome formed from a standard hypodermic needle to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. In my opinion, a POSA would have understood that the Quintana method and device already work for their intended purposes without any additional need to "rounding the tip or making the tip less sharp/duller." Ex. 1003 ¶186. I note that Dr. Netland does not explain why or how a POSA would have viewed forming a blunt protruding tip to be an improvement with respect to Quintana.

149. Furthermore, in my opinion, a POSA would not have known definitively whether or not Quintana described a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent

longitudinal axis of the shaft because Quintana is less than clear on this point. In addition, there is nothing in Lee, Johnstone, or any of the other prior art cited in the Petition that would have motivated a POSA to try to bend the needle tip of the Quintana trabeculotome at various random angles to arrive at a method using a device with a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft.

150. First, a POSA would have understood that Quintana's sole reason for bending the needle tip of its trabeculotome is to avoid damaging the external wall of Schlemm's Canal. *See* Ex. 1004 at 4 ("Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."). Second, a POSA would have understood that Johnstone acknowledges that its internal cystotome trabeculotomy damaged the external wall of Schlemm's Canal, but that Johnstone is otherwise unconcerned with this result. *See* Ex. 1005 at 11 ("the microscopic studies showed that this procedure not only opened the canal to the anterior chamber but it also affected the external wall and the internal structures of the canal, tending to tear and fray them . . . ."). Given these inconsistent teachings in Quintana and Johnstone, a POSA would have been wary of modifying the angle of

the needle tip bend in the Quintana trabeculotome for fear that using any such altered device used to perform Quintana's procedure would heighten the risk of undesirable injury to the external wall of Schlemm's Canal. Moreover, a POSA would have been advised especially against modifying the angle of the needle tip bend in the Quintana trabeculotome, as Dr. Netland asserts, to be approximately 90 degrees based on Johnstone, which specifically described damaging the external wall of Schlemm's Canal with its internal cystotome trabeculotomy.

151. Dr. Netland's attempts to justify his hindsight reconstruction of an altered Quintana trabeculotome are contrary to what Quintana actually tells a POSA. For example, by asserting that a hypothetical Quintana trabeculotome with a needle tip bent at approximately 90 degrees might still work if used (1) in a perpendicular approach or (2) in a tangential approach so long as the syringe portion of the device is repositioned outside the patient's eye, Dr. Netland ignores Quintana's choice of a tangential versus perpendicular approach and makes up using the hypothetical altered device in a way that Quintana never mentions or suggests. *See* Ex. 1003 ¶211. None of the prior art cited in the Petition supports Dr. Netland's assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

152. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element e as referenced in the Netland Declaration): "first and second lateral cutting edges formed at stationary side-by-side locations on the shaft, said first and second lateral cutting edges facing in the same lateral direction as the blunt protruding tip and being spaced apart such that an area exists between the first and second lateral cutting edges."

153. At Paragraphs 187-188, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

154. In my opinion, a POSA would have understood Quintana to describe using the sharp point of the needle tip of the Quintana trabeculotome to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. A POSA would have understood that Quintana never describes the beveled sides of the standard hypodermic needle tip of the Quintana trabeculotome as sharp, capable of cutting tissue, or to be cutting edges and never describes the Quintana trabeculotome as a dual blade device. In addition, there is nothing in Lee or any of the other prior art cited in the Petition

that would have motivated a POSA to sharpen the beveled sides of the needle tip of the Quintana trabeculotome to try to create cutting edges capable of being used to remove TM.

155. To the extent a POSA would have understood that Quintana does not disclose cutting edges, a POSA would also have understood that Quintana cannot disclose first and second lateral cutting edges. However, even if one were to assume Dr. Netland's erroneous premise that the beveled sides of the needle tip of the Quintana trabeculotome are cutting edges, which they are not, then by Dr. Netland's definition, the entire surface of the needle bevel (including the sharp point) then would be a single cutting edge. In that case, a POSA would have understood that Quintana does not disclose first and second lateral cutting edges formed at stationary side-by-side locations on the shaft that face in the same lateral direction as the blunt protruding tip and are spaced apart such that an area exists between the first and second lateral cutting edges.

156. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element f as referenced in the Netland Declaration): "a blunt top edge that extends transversely from a top end of the first lateral cutting edge to a top end of the second lateral cutting edge and traverses above the area between the first and second lateral cutting edges."

157. At Paragraph 189, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

158. Quintana describes using a trabeculotome formed from a standard hypodermic needle to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. In my opinion, a POSA would have understood that the Quintana method and device already work for their intended purposes without any additional need to "round other portions near the cutting area." Ex. 1003 ¶189. I note that Dr. Netland does not explain why or how a POSA would have viewed forming a blunt top edge to be an improvement with respect to Quintana.

159. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element g as referenced in the Netland Declaration): "the blunt protruding tip having a transverse width, a top surface, a bottom surface and a terminal end, the transverse width being narrowest at the terminal end."

160. At Paragraph 190, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or

claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

161. As described at Paragraph 108 above, Quintana does not disclose a blunt protruding tip, much less a blunt protruding tip having a transverse width that is narrowest at the terminal end. I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

162. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element h as referenced in the Netland Declaration): "the blunt protruding tip being below the area between the first and second lateral cutting edges and protruding in the lateral direction beyond the first and second lateral cutting edges such that tissue may pass over the top surface of the blunt protruding tip before coming into contact with the first and second lateral cutting edges."

163. At Paragraph 191, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

164. As described at Paragraph 111 above, Quintana neither discloses first and second lateral cutting edges nor a blunt protruding tip. Furthermore, even if the Quintana trabeculotome had these elements, which it does not, I disagree with Dr.

Netland that a POSA would have understood the Quintana trabeculotome to be configured such that "tissue may pass over the top surface of the blunt protruding tip before coming into contact with the first and second lateral cutting edges." I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

165. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element i as referenced in the Netland Declaration): "a distal portion of the shaft and the blunt protruding tip being sized to pass through an incision formed in the eye by a 1.5 mm slit knife."

166. At Paragraph 192, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

167. As described at Paragraph 114 above, Quintana does not disclose a blunt protruding tip. I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

168. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element j as referenced in the Netland Declaration): "the blunt protruding tip being further sized to fit within Schlemm's Canal of the human eye and, when so

positioned, to be advanceable through Schlemm's Canal with trabecular meshwork tissue passing over its top surface and into contact with the first and second lateral cutting edges."

169. At Paragraph 193, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

170. As described at Paragraph 117 above, Quintana neither discloses first and second lateral cutting edges nor a blunt protruding tip. Furthermore, even if the Quintana trabeculotome had these elements, which it does not, I disagree with Dr. Netland that a POSA would have understood the Quintana trabeculotome to be configured such that the purported blunt protruding tip is "advanceable through Schlemm's Canal with trabecular meshwork tissue passing over its top surface and into contact with the first and second lateral cutting edges." I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

171. Claim 2 of the '155 Patent reads: "A device according to claim 1 wherein the first and second lateral cutting edges are spaced apart by a distance D

and cut a strip of trabecular meshwork tissue having a width W that is substantially equal to distance D."

172. At Paragraphs 194-196, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

173. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 2 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 2.

174. As described at Paragraph 121 above, Quintana never describes or depicts contacting the TM with the beveled sides of the needle tip of the Quintana trabeculotome, much less concurrently cutting the TM with these beveled sides to form a strip of TM of defined width. In my opinion, a POSA reading Quintana would not have been reasonably certain that this was the case. For example, TM removed by tearing, or by excision using only the sharp point of the needle tip, would not be a strip of TM of defined width. I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

175. Claim 3 of the '155 Patent reads: "A device according to claim 1 useable for cutting a sector of trabecular meshwork tissue having a length of 2 to 10 millimeters."

176. At Paragraphs 198-200, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

177. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 3 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 3.

178. As described at Paragraph 125 above, Quintana never describes its procedure as involving cutting the TM to form a strip of tissue, much less a strip of tissue of defined width. I disagree with Dr. Netland's assertion that Quintana's disclosure of a 100-120° trabeculotomy in any way describes cutting the TM to form a strip of tissue, much less that it must equate to a tissue strip length of about 2 to 10 millimeters. *See* Ex. 1003 ¶200. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which, in my opinion, is wrong and

is based solely on his own speculation, conjecture, and hindsight. I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

179. Claim 6 of the '155 Patent reads: "A device according to claim 1 wherein the device is manually operable to remove a strip of trabecular meshwork tissue."

180. At Paragraphs 201-202, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

181. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 6 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 6.

182. As described at Paragraph 128 above, Quintana never mentions or suggests removing a strip of TM in any manner. I note that Dr. Netland offers no explanation or basis for how Lee might make up for this lack in Quintana.

183. Claim 7 of the '155 Patent reads: "A device according claim 1 wherein the shaft comprises a tube having at least one lumen."

184. At Paragraphs 203-204, the Netland Declaration asserts that Quintana in combination with Lee discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

185. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 7 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 7.

iv. Petition Ground 4 (Claims 4-5 are not obvious over Quintana in view of Lee and the knowledge in the art)

186. Claim 4 of the '155 Patent reads: "A device according to claim 1 wherein the bottom surface of the blunt protruding tip extends at an angle of approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

187. At Paragraphs 206-211, the Netland Declaration asserts that Quintana in combination with Lee and the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-44, 51-52, 98-99 above.

188. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 4 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 4.

189. In addition, for at least the reasons set forth in ¶¶84-89 above, a POSA would not have been motivated by any of the cited prior art in the Petition or the general knowledge in the art to modify the Quintana trabeculotome by bending the needle tip at an angle greater than what Quintana disclosed, and certainly not to approximately 90 degrees, as Dr. Netland asserts. *See* Ex. 1003 ¶¶206-211. Rather, a POSA reading Quintana together with Johnstone (the only reference upon which Dr. Netland relies for this argument), in my opinion, would have come to an understanding exactly opposite from Dr. Netland's.

190. First, a POSA would have understood that Quintana's sole reason for bending the needle tip of its trabeculotome is to avoid damaging the external wall of Schlemm's Canal. *See* Ex. 1004 at 4 ("Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."). Second, a POSA would have understood that Johnstone acknowledges that its internal cystotome

trabeculotomy damaged the external wall of Schlemm's Canal, but that Johnstone is otherwise unconcerned with this result. *See* Ex. 1005 at 11 ("the microscopic studies showed that this procedure not only opened the canal to the anterior chamber but it also affected the external wall and the internal structures of the canal, tending to tear and fray them . . . ."). Given these inconsistent teachings in Quintana and Johnstone, a POSA would have been wary of modifying the angle of the needle tip bend in the Quintana trabeculotome for fear that using any such altered device used to perform Quintana's procedure would heighten the risk of undesirable injury to the external wall of Schlemm's Canal. Moreover, a POSA would have been advised especially against modifying the angle of the needle tip bend in the Quintana trabeculotome, as Dr. Netland asserts, to be approximately 90 degrees based on Johnstone, which specifically described damaging the external wall of Schlemm's Canal with its internal cystotome trabeculotomy.

191. Dr. Netland's attempts to justify his hindsight reconstruction of an altered Quintana trabeculotome are contrary to what Quintana actually tells a POSA. For example, by asserting that a hypothetical Quintana trabeculotome with a needle tip bent at approximately 90 degrees might still work if used (1) in a perpendicular approach or (2) in a tangential approach so long as the syringe portion of the device is repositioned outside the patient's eye, Dr. Netland ignores

Quintana's choice of a tangential versus perpendicular approach and makes up using the hypothetical altered device in a way that Quintana never mentions or suggests. *See* Ex. 1003 ¶211. None of the prior art cited in the Petition supports Dr. Netland's assertions in this regard, which, in my opinion, are wrong and are based solely on his own speculation, conjecture, and hindsight.

192. Claim 5 of the '155 Patent reads: "A system comprising a device according to claim 1 in combination with a 1.5 mm slit knife for forming said incision in the human eye."

193. At Paragraphs 212-214, the Netland Declaration asserts that Quintana in combination with Lee and the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶19-43, 51-52, 98-99 above.

194. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 5 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 5.

195. Quintana describes using a trabeculotome formed from a standard hypodermic needle to incise or tear the TM away from the lumen of Schlemm's

Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. In my opinion, a POSA would have understood that the Quintana method and device already work for their intended purposes without any need for additional cutting tool. I note that Dr. Netland does not explain why or how a POSA would have viewed combining a 1.5 mm slit knife to be an improvement with respect to Quintana.

v. Petition Ground 5 (Claims 1-7 are not obvious over Jacobi in view of the knowledge in the art)

196. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A dual blade device useable for performing an ab intern [sic] procedure within a human eye to remove a strip of trabecular meshwork tissue, said device comprising." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

197. At Paragraphs 216-220, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

198. In my opinion, a POSA would have understood Jacobi to describe a method using a device to scrape or abrade the TM instead of cutting defined strips of TM. A POSA would have understood that Jacobi never describes its gonioscraper as a cutting device. Even if that the tiny bowl with sharpened edges of the gonioscraper tip were deemed to have a cutting edge, which it does not, there would be only a single cutting edge. A POSA would not have understood Jacobi to describe a device with two cutting edges. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add this missing element.

199. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element d as referenced in the Netland Declaration): "a blunt protruding tip that extends in a lateral direction from a distal end of the shaft to form a bend or curve of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

200. At Paragraphs 223-230, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶73-76 above.

201. Jacobi never describes any portion of the gonioscraper tip to be a blunt protruding tip. As used for its intended purpose like a scoop in the described goniocurretage, *see* Ex. 1007 at 2, the Jacobi gonioscraper does not have a blunt protruding tip. In addition, in my opinion, a POSA would have understood Jacobi to describe a gonioscraper closely resembling a cyclodialysis spatula. Jacobi never mentions or depicts a bend or curve having an angle of approximately 30 degrees to approximately 90 degrees relative to the adjacent longitudinal axis of the shaft formed from a blunt protruding tip that extends from a distal end of the shaft. Furthermore, in my opinion, a POSA would have been wary of modifying the angle of the Jacobi gonioscraper for fear that using any such altered device to perform Jacobi's goniocurretage procedure would further increase the undesirable damage to the external wall of Schlemm's Canal already seen in Jacobi and, moreover, possibly render the Jacobi gonioscraper unusable for its intended purpose.

202. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element e as referenced in the Netland Declaration): "first and second lateral cutting edges formed at stationary side-by-side locations on the shaft, said first and second lateral cutting edges facing in the same lateral direction as the blunt

protruding tip and being spaced apart such that an area exists between the first and second lateral cutting edges."

203. At Paragraphs 231-235, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

204. In my opinion, a POSA would have understood Jacobi to describe a method using a device to scrape or abrade the TM instead of cutting defined strips of TM. A POSA would have understood that Jacobi never describes its gonioscraper as a dual blade device. Indeed, even if the tiny bowl with sharpened edges of the gonioscraper tip were deemed to have a cutting edge, which it does not, there would be only a single cutting edge. In that case, a POSA would have understood that Jacobi does not disclose first and second lateral cutting edges formed at stationary side-by-side locations on the shaft that face in the same lateral direction as the purported blunt protruding tip and are spaced apart such that an area exists between the first and second lateral cutting edges. I note that Dr. Netland does not explain why or how a POSA would have viewed "[m]odifying the direction of the cutting edges of Jacobi's bowl-shaped tip," Ex. 1003 ¶235, to

be an improvement with respect to Jacobi, at the risk of rendering the Jacobi gonioscraper unusable for its intended purpose.

205. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element f as referenced in the Netland Declaration): "a blunt top edge that extends transversely from a top end of the first lateral cutting edge to a top end of the second lateral cutting edge and traverses above the area between the first and second lateral cutting edges."

206. At Paragraphs 236-237, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

207. Jacobi never describes any portion of the gonioscraper tip to be a blunt top edge. In my opinion, there is nothing in the text or figures in Jacobi to support Dr. Netland's arbitrary labeling of a blunt top edge in his re-drawing of Jacobi Figure 1. *See* Ex. 1003 ¶236. Nor does Dr. Netland offer any explanation why or how a POSA would have viewed a blunt top edge to be an improvement with respect to Jacobi, at the risk of rendering the Jacobi gonioscraper unusable for its intended purpose (which is designed to work like a scoop, Ex. 1007 at 2).

208. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element g as referenced in the Netland Declaration): "the blunt protruding tip having a transverse width, a top surface, a bottom surface and a terminal end, the transverse width being narrowest at the terminal end."

209. At Paragraphs 238-239, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

210. Jacobi does not disclose a blunt protruding tip. Furthermore, even if the Jacobi gonioscraper had a blunt protruding tip, which it does not, I disagree with Dr. Netland that any such tip has a transverse width being narrowest at the terminal end. *See* Ex. 1003 ¶239. Dr. Netland never explains why or how a POSA would necessarily measure the transverse width of the tiny bowl of the Jacobi gonioscraper tip only in the way Dr. Netland proposes. For example, one could reasonably view the transverse width as narrowest at the proximal portion of the tiny bowl of the Jacobi gonioscraper tip that Dr. Netland otherwise depicts as the blunt top edge. In my opinion, nothing in Jacobi supports Dr. Netland's assertion in this regard, which is wrong and is based solely on his own speculation,

conjecture, and hindsight. In addition, I note that Dr. Netland offers no explanation or basis for how the knowledge in the art might make up for this lack in Jacobi.

211. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element h as referenced in the Netland Declaration): "the blunt protruding tip being below the area between the first and second lateral cutting edges and protruding in the lateral direction beyond the first and second lateral cutting edges such that tissue may pass over the top surface of the blunt protruding tip before coming into contact with the first and second lateral cutting edges."

212. At Paragraphs 240-244, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

213. Jacobi neither discloses first and second lateral cutting edges nor a blunt protruding tip. I disagree with Dr. Netland that a POSA would have understood the Jacobi gonioscraper to be configured such that "tissue may pass over the top surface of the blunt protruding tip before coming into contact with the first and second lateral cutting edges." *See* Ex. 1003 ¶¶241-242. In particular, Dr. Netland's depiction of the inner surface of the tiny bowl of the Jacobi gonioscraper tip as the top surface of his proposed blunt protruding tip, *see* Ex. 1003 ¶238, is

inconsistent with Dr. Netland's assertion that the TM must contact the edge of the of the tiny bowl of the Jacobi gonioscraper tip only after first passing over the inner surface. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which is wrong and is based solely on his own speculation, conjecture, and hindsight.

214. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element i as referenced in the Netland Declaration): "a distal portion of the shaft and the blunt protruding tip being sized to pass through an incision formed in the eye by a 1.5 mm slit knife."

215. At Paragraphs 245-246, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

216. Here too, Jacobi does not disclose a blunt protruding tip.

217. Claim 1 of the '155 Patent reads (in pertinent part corresponding to element j as referenced in the Netland Declaration): "the blunt protruding tip being further sized to fit within Schlemm's Canal of the human eye and, when so positioned, to be advanceable through Schlemm's Canal with trabecular meshwork

tissue passing over its top surface and into contact with the first and second lateral cutting edges."

218. At Paragraphs 247-248, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

219. Jacobi neither discloses first and second lateral cutting edges nor a blunt protruding tip. I disagree with Dr. Netland that a POSA would have understood the Jacobi gonioscraper to be configured such that the purported blunt protruding tip is "advanceable through Schlemm's Canal with trabecular meshwork tissue passing over its top surface and into contact with the first and second lateral cutting edges." *See* Ex. 1003 ¶248. In particular, Dr. Netland's depiction of the inner surface of the tiny bowl of the Jacobi gonioscraper tip as the top surface of his proposed blunt protruding tip, *see* Ex. 1003 ¶238, is inconsistent with Dr. Netland's assertion that the TM must contact the edge of the of the tiny bowl of the Jacobi gonioscraper tip only after first passing over the inner surface. In my opinion, nothing in Quintana supports Dr. Netland's assertion in this regard, which is wrong and is based solely on his own speculation, conjecture and hindsight.

220. Claim 2 of the '155 Patent reads: "A device according to claim 1 wherein the first and second lateral cutting edges are spaced apart by a distance D and cut a strip of trabecular meshwork tissue having a width W that is substantially equal to distance D."

221. At Paragraphs 249-251, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

222. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 2 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 2.

223. In my opinion, a POSA would have understood Jacobi to describe a method using a device to scrape or abrade the TM instead of cutting defined strips of TM. A POSA would have understood that Jacobi never describes its gonioscraper as a dual blade device. Indeed, even if that the tiny bowl with sharpened edges of the gonioscraper tip were deemed to have a cutting edge, which

it does not, there would be only a single cutting edge. In that case, a POSA would have understood that Jacobi does not disclose "first and second cutting edges."

224. In addition, even if one were to assume Dr. Netland's erroneous premise that the sharpened edges of the tiny bowl of the gonioscraper tip are first and second cutting edges, which they are not, then a POSA would have understood that Jacobi does not disclose that the purported first and second cutting edges are "concurrently cutting, from the trabecular meshwork, a strip of tissue having approximate width W, said approximate width W being approximately equal to the distance D between the first and second cutting edges." Jacobi never describes or depicts concurrently cutting the TM with the sharpened edges of the tiny bowl of the gonioscraper tip to form a strip of TM of defined width. I disagree with Dr. Netland's assertions that using a gonioscraper "to abrade rather than incise uveal meshwork to peel off strings of trabecular tissue" must equate with using a dual blade device having first and second cutting edges cutting the TM to form strips of tissue of defined width. *See* Ex. 1003 ¶251 (quoting Ex. 1007 at 2). In my opinion, a POSA reading Jacobi would have understood the opposite, *i.e.*, Jacobi could not have been reasonably certain that this was the case. For example, Jacobi's gonioscraper is different than a cutting implement, including the dual blade device described in the '155 Patent.

225. Claim 3 of the '155 Patent reads: "A device according to claim 1 useable for cutting a sector of trabecular meshwork tissue having a length of 2 to 10 millimeters."

226. At Paragraphs 252-255, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

227. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 3 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 3.

228. In addition, Jacobi never describes its procedure as involving cutting the TM to form a strip of tissue, much less a strip of tissue of defined width. I disagree with Dr. Netland's assertion that Jacobi's disclosure of a 90-120° goniocurettage in any way describes cutting the TM to form a strip of tissue, much less that it must equate to a tissue strip length of about 2 to 10 millimeters. *See* Ex. 1003 ¶¶254-255. In my opinion, nothing in Jacobi supports Dr. Netland's

assertion in this regard, which, is wrong and is based solely on his own speculation, conjecture, and hindsight.

229. Claim 4 of the '155 Patent reads: "A device according to claim 1 wherein the bottom surface of the blunt protruding tip extends at an angle of approximately 90 degrees relative to the adjacent longitudinal axis of the shaft."

230. At Paragraphs 256-260, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

231. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 4 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 4.

232. At least for the reasons set forth in ¶¶75-76 above, Jacobi does not describe a device having a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve. In particular, Dr. Netland's re-drawing of Jacobi 2000 Figure 1(b) to show a hypothetical "bend or curve (3)" is wrong and is based solely on his own speculation, conjecture, and hindsight. No such bend or

curve is actually shown in either Jacobi or Jacobi 2000. Therefore, a POSA would not have been motivated by Jacobi to arrive at a method using a device with a blunt protruding tip that extends from a distal end of the shaft to form a bend or curve, much less one having an angle of less than approximately 90 degrees. The knowledge in the art does not make up for this lack in Jacobi.

233. In my opinion, Dr. Netland's conclusion that: "Persons of ordinary skill in the art also would have found it obvious to try variations to Jacobi's device, such as by modifying the bend or curve of the device to use different angles," Ex. 1003 ¶230, is unsupported and erroneous. Jacobi, Quintana, and Johnstone involve very different devices used for different intended purposes. *See, e.g.*, Ex. 1005 at 1 (Johnstone reporting internal cystotome trabeculotomy by *ab externo* probing of Schlemm's Canal in postmortem enucleated human eyes); Ex. 1004 at 3 (Quintana reporting the use of a hypodermic needle tip bent 20-30° to avoid injuring the external wall of Schlemm's Canal). None alone or together would have suggested to a POSA to modify the Jacobi gonioscraper to form a bend or curve at the distal end of the shaft.

234. Claim 5 of the '155 Patent reads: "A system comprising a device according to claim 1 in combination with a 1.5 mm slit knife for forming said incision in the human eye."

235. At Paragraphs 261-263, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

236. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 5 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 5.

237. Jacobi describes a method using a device to scrape or abrade the TM instead of cutting defined strips of TM. A POSA would have understood that Jacobi never describes its gonioscraper as a cutting device. In my opinion, a POSA would have understood that the Jacobi method and device already work for their intended purposes without any need for a cutting tool. I note that Dr. Netland does not explain why or how a POSA would have viewed combining a 1.5 mm slit knife to be an improvement with respect to Jacobi. In this regard, Dr. Netland's assertions about Lee and Baerveldt are irrelevant. *See* Ex. 1003 ¶262. In my opinion, nothing in Jacobi, alone or in combination with any of the other cited prior art in the Petition, or the general knowledge in the art, supports Dr. Netland's

assertion that it would have been obvious to somehow modify the Jacobi goniocurettage method to include the combination with a 1.5 mm slit knife for forming said incision in the human eye, according to the applicable legal standards as I understand them.

238. Claim 6 of the '155 Patent reads: "A device according to claim 1 wherein the device is manually operable to remove a strip of trabecular meshwork tissue."

239. At Paragraphs 264-265, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

240. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 6 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 6.

241. In particular, because Jacobi never describes its procedure as involving creating a strip of TM, a POSA would not have even considered removing a strip of TM. In this regard, Dr. Netland's assertions about Quintana

and the general knowledge in the art, are irrelevant. *See* Ex. 1003 ¶265. In my opinion, nothing in Jacobi, alone or in combination with any of the other cited prior art in the Petition, or the general knowledge in the art, supports Dr. Netland's assertion that it would have been obvious to somehow modify the Jacobi goniocurettage method to include the step of using a tissue severing apparatus to transect or sever the strip of tissue so as to disconnect it from the patient's body, according to the applicable legal standards as I understand them.

242. Claim 7 of the '155 Patent reads: "A device according claim 1 wherein the shaft comprises a tube having at least one lumen."

243. At Paragraphs 266-267, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶65-79, 87-88 above.

244. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 7 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 7.

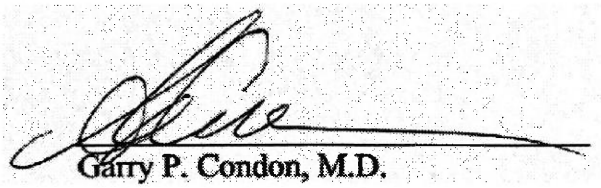
D. CONCLUSION

245. In my opinion, according to the applicable legal standards as I understand them, a POSA reading the cited prior art in the Petition along with the general knowledge in the art would have concluded with a reasonable scientific certainty that Claims 1-10 of the '155 patent are not invalid and specifically would have found that: (I) Claims 1-3 and 6-7 are not anticipated under 35 U.S.C. § 102 by Quintana (Ex. 1004); (II) Claims 4-5 are not rendered obvious under 35 U.S.C. § 103 by Quintana (Ex. 1004) in view of the knowledge of a POSA; (III) Claims 1-3 and 6-7 are not rendered obvious under 35 U.S.C. § 103 by Quintana (Ex. 1004) in view of Lee (Ex. 1006); (IV) Claims 4-5 are not rendered obvious under 35 U.S.C. § 103 by Quintana (Ex. 1004) in view of Lee (Ex. 1006) in further view of the knowledge of a POSA; and (V) Claims 1-7 are not rendered obvious under 35 U.S.C. § 103 by Jacobi (Ex. 1007) in view of the knowledge of a POSA.

246. I declare under penalty of perjury that the foregoing is true and correct. I declare that all statements made herein of my knowledge are true, and that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: July 7, 2021

Respectfully submitted,



Garry P. Condon, M.D.

Appendix A

CURRICULUM VITAE

Name: **GARRY PASCAL CONDON, M.D.**

Address: Coastal Eye Institute
217 Manatee Avenue E.
Bradenton, FL 34208

Date of Birth: May 17, 1958

Place of Birth: Winnipeg, Manitoba, Canada

Citizenship: U.S.
Canadian

Education:

1979 B. Med. Sc.	Memorial University of Newfoundland St. John's, Newfoundland, Canada
1981 M.D.	Memorial University of Newfoundland St. John's, Newfoundland, Canada

Internship and Residency:

1981-82	Intern (Straight Internal Medicine) Memorial University of Newfoundland, St. John's, Newfoundland, Canada
1983-86	Resident in Ophthalmology, University of Western Ontario, London, Ontario, Canada

Fellowships:

1982-83	Fellow in Ophthalmic Pathology, McGill Pathology Institute (Dr. Seymour Brownstein), Montreal, Quebec, P.Q., Canada
1986-88	Fellow, New England Glaucoma Research Foundation (Dr. Richard J. Simmons), Boston, MA

Licensure and Certification:

1983	Licentiate of the College of Physicians and Surgeons of Ontario, Canada
1983	Licentiate of the State of New York in Medicine and Surgery
1984	Licentiate of the Medical Council of Canada
1986	Licentiate of the Commonwealth of Massachusetts Board of Registration in Medicine
1986	Fellow of the Royal College of Surgeons (Canada) - Ophthalmology
1987	Diplomate - American Board of Ophthalmology
1987	Licentiate of the Commonwealth of Pennsylvania State Board of Medicine

Current Medical Licensure:

State of Florida Medical License ME 121450	Initial License Date: 08/29/2014 Expiration Date: 01/31/2023

Speciality Certification:

American Board of Ophthalmology (No certification #)	Issue Date: 10/27/1987 (No expiration date)

Professional Memberships:

1988 - 2019	Fellow of The American Academy of Ophthalmology

1988 - 2018	Member of the Pittsburgh Ophthalmology Society
1988 - Present	Member Chandler-Grant Glaucoma Society
1989 - 2018	Member of the Allegheny County Medical Society
1989 - 2018	Member of the Pennsylvania Medical Society
1989 - Present	Member of the American Medical Association
1992 - 2018	Member of the Pennsylvania Academy of Ophthalmology
2000 - Present	Member of the American Society of Cataract and Refractive Surgery
2004 - Present	Member of the American Glaucoma Society
2005 - Present	Member of the International Intra-Ocular Implant Club
2015 - Present	Member of the Florida Medical Association
2019 - Present	Life Member of The American Academy of Ophthalmology

Appointments:

1987 - 1988	Clinical Instructor in Ophthalmology Harvard Medical School, Boston
1988 - 1996	Assistant Professor of Surgery (Ophthalmology) Medical College of Pennsylvania, Pittsburgh, PA
1990 - 2018	Director, Division of Glaucoma, Department of Ophthalmology Allegheny General Hospital, Pittsburgh, PA
1991 - 2003	Adjunct Clinical Instructor in Ophthalmology University of Pittsburgh, Pittsburgh, PA
1996 - 2000	Assistant Professor of Ophthalmology in the Department of Ophthalmology, MCP□Hahnemann School of Medicine, Allegheny General Hospital Campus, Pittsburgh, PA
2000 - 2014	Associate Professor of Ophthalmology in the Department of Ophthalmology, Drexel University College of Medicine, Allegheny General Hospital Campus, Pittsburgh, PA
2002 - 2007	Vice Chairman, Department of Ophthalmology, Allegheny General Hospital, Pittsburgh, PA
2004 - Present	Clinical Assistant Professor in the Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA

Appointments:-cont'd

2007 – 2018	Chairman in the Department of Ophthalmology, Allegheny General Hospital, Pittsburgh, PA
2015 – Present	Professor in the Department of Ophthalmology, Drexel University College of Medicine, Philadelphia, PA

Societies / Committees Positions:

1990 - 1994	Continuing Medical Education Committee Allegheny General Hospital
1991 - 1993	Executive Committee, Pittsburgh Ophthalmology Society
1992 - 1995	Operating Room Adhoc Committee for Minimally Invasive Surgery
2001 - 2003	Secretary-Treasurer, Chandler – Grant Glaucoma Society
2001 - 2004	Operating Room Committee
2002 - 2018	Program Committee, Pittsburgh Ophthalmology Society
2005 - Present	Member ASCRS Glaucoma Clinical Committee
2007 – Present	Member of the Special Projects Committee, American Academy of Ophthalmology

Awards:

1984 Percy Hermant Fellowship in Ophthalmology, University of Western Ontario, London, Ontario, Canada

2001 Achievement Award, American Academy of Ophthalmology

2005 – Present The Best Doctors in America

2008 "Doctor's Choice Award", XXII Annual American College of Eye Surgeons Meeting. San Juan, Puerto Rico

Awards:-cont'd

2008 "America's Top Ophthalmologists", Cataract/Glaucoma Surgery, Consumers' Research Council of America

2008 Contributions in the Advancement of Surgical Treatment for Glaucoma, Optonol, Inc., American Society of Cataract and Refractive Surgeons Meeting, Chicago, IL

2010 Senior Achievement Award, American Academy of Ophthalmology

2011 "America's Top Ophthalmologists", Cataract/Glaucoma Surgery, Consumers' Research Council of America

2012 Best Physicians As Chosen By Their Peers, Pittsburgh Magazine

2017 - 2020 Castle - Connelly Top Doctor

2018 - 2020 'Top Doctor' Sarasota Magazine

Abstracts:

Savage JA, **Condon GP**, Lytle RA, Simmons RJ: A Hybrid Glaucoma Filtration Operation: Controlled Post-Operative Argon Laser Suture Lysis with Small Flap Trabeculectomy. Annual meeting of the American Academy of Ophthalmology, Dallas TX, October 1987

Lytle RA, Reed JA, **Condon GP**, Maestre F, Simmons RJ: "Internal Revision in Glaucoma Filtration Surgery", American Academy of Ophthalmology Meeting, Las Vegas, NV: October 8-12, 1988. (poster)

Lehrer RA, **Condon GP**, Baker KS, Spanich CG: "Primary Trabeculectomy with Adjusted Mitomycin Exposure Time", American Academy of Ophthalmology Meeting, Chicago, IL: November 14-18, 1993. (poster)

Lehrer RA, **Condon GP**, Baker KS, Spanich CG: "Combined Phacoemulsification and Trabeculectomy with Adjusted Mitomycin Exposure", American Academy of Ophthalmology Meeting, Chicago, IL: November 14-18, 1993. (poster)

Lehrer RA, **Condon GP**, Baker KS, Spanich CG: "Adjusted Mitomycin Exposure Time in Poor Prognosis Trabeculectomy Surgery", American Academy of Ophthalmology Meeting, Chicago, IL: November 14-18, 1993. (poster)

Abstracts:-cont'd

Baker KS, **Condon GP**, Lehrer RA: "Occurrence of Branch Retinal Vein and Central Retinal Vein Occlusion Following Trabeculectomy Surgery", ARVO Annual Meeting, Ft. Lauderdale, FL: April 21-26, 1996. (poster)

Suh SH, Baker KS, **Condon GP**, Lehrer RA: "Outcomes and Complications Following Combined Cataract and Trabeculectomy Surgery Using Mitomycin C", ARVO Annual Meeting, Ft. Lauderdale, FL: May 11-16, 1997. (poster)

Condon GP. Application of a Single-Piece Acrylic Lens in Glaucomatous Eyes, Annual Meeting of American Society of Cataract and Refractive Surgery, Boston, MA, May 2000

Bindlish R, **Condon GP**, Lehrer RA et al. Efficacy and safety of mitomycin-c in primary trabeculectomy – five year follow up. Meeting of the American Academy of Ophthalmology, Dallas TX, November 2000

Bindlish R, **Condon GP**, Lauer KB et al. Scleral reinforcement surgery for late hypotony after trabeculectomy with mitomycin-c. Meeting of the American Academy of Ophthalmology, Dallas TX, November 2000 (poster)

Condon GP. Biomechanical attributes of a single-piece acrylic intraocular lens in glaucomatous eyes. Annual Meeting of American Society of Cataract and Refractive Surgery, San Diego CA, April 2001

Condon GP. Secondary small incision iris fixation of an acrylic intraocular lens in the absence of capsular support. Annual Meeting of the American Society of Cataract and Refractive Surgery, Philadelphia PA, June 2002

Lauer KB, Herzig D, **Condon GP**. Trabeculectomy with mitomycin-c in neovascular glaucoma: long-term efficacy and complications. Annual Meeting of the American Academy of Ophthalmology, Orlando FL 2002 (poster)

Monsul NT, Cockerham KP, **Condon GP**. Retinal topography in unilateral optic neuropathy. Annual Meeting of the American Academy of Ophthalmology, Orlando FL 2002 (poster)

Abstracts:-cont'd

Condon GP, Ahmed IK, Masket S et al. Iris fixation of foldable PC IOL with modified McCannel slip-knot. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco, April 2003

Condon GP, Ahmed I, Masket S, Kranemann C, Crandall AS. Peripheral Iris Fixation of Foldable Acrylic Posterior Chamber IOLs: Efficacy and Complications. Annual meeting of the AAO New Orleans LA 2004 (poster)

Chiniwalla RN, **Condon GP**. Long-term Results of Conjunctivoplasty for Bleb Related Complications. Annual meeting of the AAO New Orleans LA 2004 (poster)

Mura J, Ahmed I, Kranemann C, Pavlin C, **Condon GP**, Ishikawa H. Ultrasound Biomicroscopy Analysis of Iris-Fixated Posterior Chamber IOLs. Annual Meeting of the ASCRS Washington DC, 2005.

Teichman JC, Vold S, Masket S, Crandall AS, **Condon GP**, Ahmed IK. Comparison of Outcomes Between IOL Exchange and IOL Suture Repositioning for IOL Dislocation. Annual meeting AAO Atlanta GA. 2008

Teichman JC, Vold S, Masket S, Crandall AS, **Condon GP**, Ahmed IK. Comparison of Scleral-Sutured and Iris-Sutured Repositioning for IOL Dislocation. Annual meeting AAO Atlanta GA. 2008

Condon GP, Update on Trabectome for Open-Angle Glaucoma, Co-Author (Poster). AAO, Chicago IL

Condon GP, Trabectome Combined with Phacoemulsification Versus Phacoemulsification Alone: Prospective Nonrandomized Controlled Comparative Trial. Glaucoma Paper Session. ASCRS-ASOA. San Diego CA 2011

Condon GP, Comparison of ExPRESS Miniature Glaucoma Device Implanted Under Scleral Flap with Trabeculectomy, Co-Author (Paper) PA093 AAO Chicago IL 2012

Netland PA, Sarkisian SR, Moster MR, Ahmed IK, **Condon GP**, Salim S, Sherwood MB, Siegfried CJ. Randomized, Prospective, Comparative Trial of EX-PRESS Glaucoma Filtration Device Versus Trabeculectomy (XVT Study) 2013

Publications:

McFarlane DC, **Condon GP**: Surgical Management Considerations for the Younger Adult Cataract Patient. *Current Can. Ophthalmic Practice* 1984; 2:15.

Brownstein S, Barsoum-Homsy M, Conway VH, Sales C, **Condon GP**: Nonteratoid Medulloepithelioma of the Ciliary Body. *Ophthalmology* 1984: 91:1118-1122.

Brownstein S, Belin MW, Krohel GB, Smith RS, **Condon GP**, Codere F: Orbital Dacryops. *Ophthalmology* 1984; 91:1424-1428.

Condon GP, Brownstein S, Codere F: Sebaceous Carcinoma of the Eyelid Masquerading as a Superior Limbic Keratoconjunctivitis. *Arch Ophthalmol* 1985; 103:1525-1529.

Condon GP, Brownstein S, Wang NS, Kearns JAF, Ewing CC: Hereditary (X-Linked Juvenile) Retinoschisis: Clinical Histopathologic and Ultrastructural Findings. *Arch Ophthal* 1986; 104:576-583.

Savage JA, **Condon GP**, Lytle RA, Simmons RJ: A Hybrid Glaucoma Filtration Operation: Controlled Post-Operative Argon Laser Suture Lysis with Small Flap Trabeculectomy. *Ophthalmology* 1988; 95:1631-1636.

Condon GP. Response to consultation section. J Cataract Refract Surg 2001; 27:502-3

Bindlish R, **Condon GP**, Lehrer RA, Lauer KB, Schlosser MS, d'Antonio JD. Efficacy and safety of mitomycin-c in primary trabeculectomy–Five year followup. *Ophthalmology* 2002; 109: 1336-1341

Condon GP. Response to consultation section. J Cataract Refract Surg 2002; 28: 214-216

Condon GP. Simplified small incision peripheral iris fixation of an Acrysof intraocular lens in the absence of capsular support. *J Cataract Refract Surg* 2003; 29: 1663-1667

Condon GP. Flap technique addresses bleb-related hypotony. Review of Ophthalmology, Jobson Publishing, New York, 2003; 10: 52-55

Condon GP. Response to consultation section. J Cataract Refract Surg 2003; 29: 636-37

Publications:-cont'd

Condon GP. Substitution monotherapy. In Glaucoma Management News. Slack Inc. May 2003

Condon GP. Flap technique addresses bleb-related hypotony. Vision Times (from Review of Ophthalmology) 2003; Vol 10 (Introduced in Japanese)

Condon GP. Peripheral Iris Fixation of a Foldable Acrylic Posterior Chamber Intraocular Lens in the Absence of Capsule Support. *Techniques Ophthalmol*. 2004; 2:104.

Gimbel HV, Halkiadakis I, **Condon GP**, Kohnen T, Olson RJ. Late "in-the-bag" intraocular lens dislocation. Incidence, prevention and management. *J Cataract Refract Surg*. 2005; 31:2193-2204

Condon GP. Iris Sutured IOLs. In Review of Refractive Surgery. Jobson Publishing, Newtown Square PA, April 2004

Condon GP. Iris Sutured IOLs. In Cataract and Refractive Surgery Today. Bryn Mawr Communications LLC, Wayne PA. May 2004

Condon GP. Response to consultation section. Sam Masket MD ed. *J Cataract Refract Surg* 2004; 30: 2037

Condon GP. Challenging Cataract Cases Video Presentation. Special Video Supplement. Bryn Mawr Communications LLC, Wayne PA, 2005

Condon GP. Viscoelastic Strategies to Save the Capsule. In Cataract and Refractive Surgery Today (supp). Bryn Mawr Communications LLC, Wayne PA. April 2005

Condon GP. Response to Cataract Complications Management. Section editors Robert Cionni MD, Michael Snyder MD and Robert Osher MD. In Cataract and Refractive Surgery Today. Bryn Mawr Communications LLC, Wayne PA. May 2005

Condon GP, Iris-Fixated Posterior Chamber Intraocular Lenses. (letter) *J Cataract Refract Surg* 2006; 32:1409

Condon GP. Consultant, Sutured Posterior Chamber Intraocular Lenses Focal Points: Clinical Modules for Ophthalmologists. Published by AAO, September 2006

Condon GP. A Perspective on Antimetabolites in Glaucoma Surgery. Audio-Digest Ophthalmology, Vol 44 Issue 24, December 2006

Publications:-cont'd

Condon GP, Ahmed I, Masket S, Kranemann C, Crandall AS. Peripheral Iris Fixation of Foldable Acrylic Posterior Chamber IOLs: Efficacy and Complications. *Ophthalmology* 2007; 114:1311-1318

Condon GP. Response to Consultation Section. Sam Masket MD ed. General Cataract and Refractive Surg 2007; 33:948

Chang DF, Curbside Consultation in Cataract Surgery. **Condon GP** Question 47: "Following a Posterior Capsular Rent, the Sulcus-Fixated Intraocular Lens Has Become Decentered. How Should I Proceed?" Slack Incorporated 2007

Condon GP. Making the Most of an Imperfect Solution. Review of Ophthalmology, Jobson Publishing, New York. December 2007

Condon GP. Response to Consultation Section. Sam Masket MD ed. General Cataract and Refractive Surgery. February 2008

Mura J, Ahmed I, Kranemann C, Pavlin C, **Condon GP**, Ishikawa H. Ultrasound Biomicroscopy Analysis of Iris-Fixated Posterior Chamber IOLs. *Ophthalmology* (in press)

Dorey MD, **Condon GP**. Management of Dislocated Intraocular Lenses. Focal Points: Clinical Modules for Ophthalmologists. Published by AAO, (in press)

Condon GP. A Limbus- or Fornix-Based Flap? Glaucoma Today. March/April 2008 – Vol 6, No. 2

Condon GP, Davis EA, MacDonald SM. Tips for Easier, Safer Phacoemulsification: Part 2. Cataract & Refractive Surgery Today. July 2008

Condon GP, A "Cornea Conscious" Approach to Dense Nuclei. OVD Strategies for Complex Cases. Supplement to Cataract & Refractive Surgery Today. August 2008

Devgan U., **Condon GP**, Drandall AS. Subluxated Lenses in a Pediatric Patient. Cataract & Refractive Surgery Today. May 2009

Condon GP, Closing the Fornix-Based Flap. Glaucoma Today. October 2009 – Vol 7, No. 7

Condon GP, Closing the Fornix-Based Flap. EyeTube.Net 2009

Publications:-cont'd

Condon GP, Traumatic Cataract with Vitreous in Anterior Chamber for "OVD's in Challenging Cases". Video Supplement

Mura JJ, Pavlin CJ, **Condon GP**, Belovay GW, Kranemann CF, Ishikawa H, Ahmed II, Ultrasound Biomicroscopic Analysis of Iris-Sutured Foldable Posterior Chamber Intraocular Lenses. American Journal of Ophthalmology, 2010 Feb; 149(2):245-252

Condon GP, Laser Treatment, PNT versus ALT. *International Glaucoma Review,* Editor's Selection. Volume 12-1, 2010

Condon GP, Vitreous in the Anterior Chamber: Maintaining Control During Surgery

Condon GP, Single-Piece Syndrome. The Newest Form of IOL-Induced Glaucoma. Glaucoma Today. Early Summer 2011 – Volume 9, No. 3

Condon GP, Will Surgery Become the First Line of Glaucoma Treatment in the United States? Point/Counterpoint/Safer, more Efficacious Procedures will mean Earlier Surgery. (It is Highly Unlikely, Lin SC) Glaucoma Today. Summer 2011

Condon GP, Samuelson TW, Shingleton BJ, Singh K, Zabriskie N. Simultaneous, Combined Cataract and Glaucoma Surgery. Glaucoma Today May/June 2012

Condon GP, When a Torn Capsule Becomes a Total Capsulectomy. Cataract & Refractive Surgery Today June 2012

Condon GP, Brown RH, Crandall AS, Donnenfeld ED. Cataract Surgery in the High Hyperope. Glaucoma Today September/October 2012

Kirk TQ, **Condon GP**. Simplified Ab Externo Scleral Fixation for Late In-the-Bag Intraocular Lens Dislocation. J Cataract Refract Surg 2012; 38:1711-1715

Kirk TQ, **Condon GP**. Tools & Techniques. Simplifying Management of the Dislocated In-the-Bag Intraocular Lens. Eyeworld 2014-5-8; 16:53:33

Kirk TQ, **Condon GP**. Modified Wise Closure of the Conjunctival Fornix-based Trabeculectomy Flap. J Cataract Refract Surg 2014; 40:349-353

Condon GP. The Siepser Sliding Knot (Eyetube Video). Cataract & Refractive Surgery Today Europe March 2014

Publications:-cont'd

Condon GP. Noecker RJ, Radcliffe NM, Vold SD, Raviv T. Cataract Surgery Complex Case Management. Cataract with an Overhanging Bleb. Cataract & Refractive Surgery Today June 2014

Condon GP, Crandall AS, MacDonald SM, McCabe CM, Arbisser LB. Progressive Cataract Elevated IOP and Flat Anterior Chamber after PPV and Trabeculectomy. Cataract & Refractive Surgery Today July 2014

Condon GP, Moster MR. Minimizing the Invasiveness of Traditional Trabeculectomy Surgery. J Cataract Refract Surg 2014; 40:1307-1312

Condon GP. Response to Consultation Question (Cataract Surgical Problem) Posed by Dr. Samuel Masket. J Cataract Refract Surg 2014; 40:1394-1395

Condon GP, Masket S, Consultants. Placement of Endocapsular IOL's in Eyes with Zonular Compromise. Focal Points AAO. Vol XXXII, Number 7, Sept 2014

Condon GP. When Should I Perform Lens Extraction Alone for the Primary Angle – Closure Suspect? Comment PACS 'The Undisputed Mainstay of Treatment." Glaucoma Today March/April 2015

Condon GP, Crandall AS, Masket S. Decentration After IOL Exchange for UGH Syndrome. Cataract & Refractive Surgery Today June 2015

Grove K, **Condon GP**, Emy B, Chang DF, Kim T. Complication from Combined Use of Capsule Retractors and Capsular Tension Rings in Zonular Dehiscence. J Cataract Refract Surg 2015; 41:2576-2579

Siegel M, **Condon GP**. Single Suture Iris-to-Capsulorhexis Fixation for In-the-Bag Intraocular Lens Subluxation. J Cataract Refract Surg 2015; 41:2347-2352

Book Chapters:

Condon GP. Lu LW. Phacoemulsification in the Previously Filtered Eye. In: Mehta KR, Alpar JJ (Ed): *The Art of Phacoemulsification,* Jaypee Brothers: New Delhi, 2001; chap 31

Critchton AC, **Condon GP**, Trope GE. Management of the Leaking Bleb. In: Trope GE (Ed): *Glaucoma Surgery*, Taylor & Francis: New York, 2005; chap 23

Book Chapters:-cont'd

Alunni MA, **Condon GP**. Treatment of Occludable Angles and Angle Closure with Cataract Extraction. In: Kahook MY, Schuman JS, eds. Chandler and Grant's Glaucoma. 5th ed. Thorofare, NJ: SLACK Incorporated; 2013

Condon GP. Curbside Consultation in Cataract Surgery 49 Clinical Questions, 2nd Updated Edition) Question 48: "Following a Posterior Capsular Rent, the Sulcus Fixated Intraocular Lens has become Decentered. How Should Proceed?" Slack Incorporated, 2013

Condon GP, Chan CK, Agarwal A. Posterior Capsular Rupture. A Practical Guide to Prevention and Management. -15- "Management of Dislocated Intraocular Lenses." Slack Incorporated, 2014

Kirk TQ, **Condon GP**, Siegel MJ. Fixation for Delayed Bag-IOL Dislocation. In: Chang DF, Lee BS, Agarwal A, eds. Advanced IOL Fixation Techniques. Slack Inc. Thorofare NJ, 2019

Condon GP. Peripheral Iris IOL Fixation. . In: Chang DF, Lee BS, Agarwal A, eds. Advanced IOL Fixation Techniques. Slack Inc. Thorofare NJ, 2019

Named Lectures:

2009 The GV Simpson Lectureship in Ophthalmology. Western University. London Canada

2009 Joseph H. Bowlds, M.D. Lecture. Lahey Clinic Eye Institute. Late IOL Dislocation: The Real Deal. Burlington MA

2010 The Ruthanne and Richard Simmons Lecture. Glaucoma Challenges. New England Ophthalmology Society. Boston MA

2011 David Kozart Annual Lectureship. Pseudoexfoliation: Zonule Compromise & Counter Measures. Scheie Eye Institute, University of Pennsylvania. Philadelphia PA

2011 William Evans Bruner, M.D. Lecture. Trabeculectomy 2011: Is There Still a Role? Case Western Reserve University. Cleveland OH

2012 20th Annual Arthur Light, M.D. Memorial Lectureship in Ophthalmology. 5th Annual Glaucoma / Cataract Symposium. Innovations in Cataract Surgery

and Glaucoma Management. Loyola Medicine Chicago IL

2013 The 2013 Stephen A. Obstbaum, MD, Honored Lecture, "Pseudoexfoliation: My Life as a "Zonulist." What we Know, Don't Know, and Shouldn't Know." ASCRS Glaucoma Day, San Francisco CA

2015 The Gettes Lecture. 67th Annual Wills Eye Hospital Conference. Philadelphia PA

2018 The 2018 Annual Alan Crandall Lecture. 'Pseudoexfoliation' ASCRS annual Surgical Summit, Deer Valley, Utah.

AUDIO DIGEST LECTURES

2013 Zonular Compromise, Audio-Digest Ophthalmology, Vol 51 Issue 16 Aug 21, 2013 (81st Midwinter Conference Controversies in Medicine)

2013 Cataract Surgery and Glaucoma, Audio-Digest Ophthalmology, Vol 51 Issue 16 Aug 21, 2013 (81st Midwinter Conference Controversies in Medicine)

2013 Acute Angle Closure Glaucoma, Audio-Digest Ophthalmology, Vol 51 Issue 16 Aug 21, 2013 (81st Midwinter Conference Controversies in Medicine)

Participation in Symposia:

1989 "Argon Laser Suture Lysis Following Trabeculectomy", Glaucoma-Into the 1990's Symposium, co-chairman. Pittsburgh, PA

1994 "Target IOP and Mitomycin", Nantucket Glaucoma Meeting, Joel Schumann Chairman. Nantucket, MA

1997 "Coexistent Glaucoma and Cataract," 48th Annual Post-graduate Review Course: Ophthalmology, SUNY Health Science Center, Syracuse, New York

1999 "Co-existent Glaucoma and Cataract", Capital Glaucoma Meeting: The Executive Summary, Alan Robin MD, Chairman. Washington, D.C.

1999 "Phacoemulsification in the Previously Filtered Eye", Capitol Glaucoma

Meeting: The Executive Summary. Alan Robin MD, Chairman. Washington, D.C.

2002 Session Panelist: IOL power calculation after refractive surgery. Annual Meeting of the American Society of Cataract and Refractive Surgery, Philadelphia PA

Participation in Symposia:-cont'd

2002 Selected case presentation at the 'Challenging Cataract Case Symposium'. Annual Meeting of the American Society of Cataract and Refractive Surgery, Philadelphia PA

2003 Session Panelist: New IOL designs. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco, CA

2003 Phacoemulsification in the previously filtered eye. Glaucoma Management Trends. Alan Robin MD, Vitale Costa MD co-chairs. San Juan PR

2003 Non-penetrating glaucoma surgery: Indications and techniques. The Glaucoma Summit. David Dueker MD, Edward Rockwood MD co-chairs. Cole Eye Institute, Cleveland Clinic, Cleveland OH, Jan 31- Feb 1,2003

2003 Simplified Peripheral Iris Fixation of an Acrylic IOL. Advances in Glaucoma. Fabian Lerner, Chairman. Buenos Aires, Argentina.

2003 Discussant for Paper: Late dislocation of in-bag IOLS associated with pseudoexfoliation. American Academy of Ophthalmology Annual Meeting 2003, Anaheim, CA

2004 Blebitis: The Growing Dilemma-The Persistent Challenge. Advances in Glaucoma Management. Eye World Educational Symposium, San Diego CA

2004 Peripheral Iris Fixation of PC IOLs. American College of Eye Surgeons Quality Surgery IVIII. Marco Island FL

2004 Endocyclophotocoagulation: Point/Counterpoint. American College of Eye Surgeons Quality Surgery XVIII. Marco Island FL

2004 Eyepass: Ready for Prime Time? New Surgical Interventions in Glaucoma Symposium. Sponsored by ASCRS Glaucoma Clinical Committee, San Diego CA

2004 Session Panelist: Cataract/IOL. Annual meeting of the ASCRS, San Diego CA

2004 Phacoemulsification in Angle Closure Glaucoma. Asia-Far East Glaucoma Symposium. Ivan Goldberg MD moderator. Male Maldives

Participation in Symposia:-cont'd

2004 Peripheral Iris Fixation of PC IOLs in the Absence of Capsule Support. Ophthalmic Symposium. Douglas Koch MD moderator. San Antonio TX

2004 Hydrodissection. Ophthalmic Symposium. Douglas Koch moderator. San Antonio TX

2004 Combined Cataract and Glaucoma Surgery. Ophthalmic Symposium. Douglas Koch MD moderator. San Antonio TX

2005 Innovations in Glaucoma Surgery. Phaco Foldables and Refractive Results Symposium. Alan S Crandall MD moderator. Sponsored by Alcon. Park City Utah

2005 Iris Fixated versus Scleral Fixated IOLs. Point-counterpoint. Phaco Foldables and Refractive Results Symposium. Alan S Crandall MD moderator. Sponsored by Alcon. Park City Utah

2005 Management of dislocated IOLs. Phaco Foldables and Refractive Results Symposium. Alan S Crandall MD moderator. Sponsored by Alcon. Park City Utah

2005 Presidential Forum on Phaco: Zonular weakness. Challenge Cup Session. Manus Kraff MD moderator. Annual Meeting of the ASCRS, Washington DC

2005 Innovations in Glaucoma Surgery. Annual Wills Eye Hospital Glaucoma Symposium. St. John, Virgin Islands

2005 Pearls for a successful filter in combined cataract and glaucoma surgery. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2005 Phaco techniques. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2005 Subluxed crystalline lens – Iris sutured IOL. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2005 Complex cataract – IOL cases. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

Participation in Symposia:-cont'd

2006 Iris sutured PC IOLs – Where are they now? UBM and Late term results. Phaco Foldables and Refractive Results. Park City Utah

2006 New Instrumentation in anterior segment surgery. Phaco Foldables and Refractive Results. Park City Utah

2006 Capsular Tension Segments for compromised zonules. Phaco Foldables and Refractive Results. Park City Utah

2006 IOL Malposition puzzlers. Phaco Foldables and Refractive Results. Park City Utah

2006 Iris sutured PC IOLs in the Absence of Capsule support. World Ophthalmology Congress. Sao Paulo Brazil

2006 Trabeculectomy Pearls: How I Do It. Annual Meeting of the American Glaucoma Society. Charleston SC

2006 Phaco / IOL in the Management of Acute Angle-Closure Glaucoma. 'Glaucoma Day' preceding the Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Peripheral Iris Fixation of Late In-the-bag IOLs. 'Glaucoma Day' preceding the Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 New Operating Issues. Hot Topics Symposium. ASCRS Glaucoma Clinical Committee. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Conjunctival Closure Techniques. Symposium: Innovations and Expertise in Practical Glaucoma Surgery. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Session Moderator: Glaucoma Techniques and Technology. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Glaucoma Surgery Update: Are Blebs Obsolete? 28th Annual Dallas Spring Ophthalmology Symposium, Dallas TX

Participation in Symposia:-cont'd

2006 Complicated Anterior Segment Surgical Problems: Dislocated IOL, Iris-Sutured IOL, Loose Zonles – A Video Potpourri. 28th Annual Dallas Spring Ophthalmology Symposium. Dallas TX

2006 Surgical Management of Uncontrolled Angle Closure Glaucoma. 28th Annual Dallas Spring Ophthalmology Symposium. Dallas TX

2006 Phacoemulsification in the Management of Acute Angle Closure Glaucoma. Memphis Eye Society Annual Convention. Memphis TN

2006 Iris Fixation of Foldable IOL's: Technique & Results. Memphis Eye Society Annual Convention. Memphis TN

2006 Complications & Innovations in Challenging Cataract and IOL Cases: A Video Potpourri. Memphis Eye Society Annual Convention. Memphis TN

2006 Late Lens Subluxation: Diagnosis and Management. Glaucoma 2006: Secrets of the Glaucoma Surgeon. New York, NY

2006 Nonpenetrating Trabeculectomy. Glaucoma 2006: Secrets of the Glaucoma Surgeon. New York, NY

2006 Iris Repair – Surgical Techniques. Invited Guest Speaker, Canadian Society of Ophthalmology Annual Meeting. Toronto Canada

2006 Iris Sutured IOLS – Surgical Technique. Invited Guest Speaker, Canadian Society of Ophthalmology Annual Meeting. Toronto Canada

2006 Iris Sutured IOLS – Results and Complications Update. Invited Guest Speaker, Canadian Society of Ophthalmology Annual Meeting. Toronto Canada

2006 A Perspective on Antimetabolites in Glaucoma Surgery. 29th Annual Midwest Glaucoma Symposium. Pittsburgh PA

2006 Surgical Complications in Glaucoma Surgery. Moderator. 29th Annual Midwest Glaucoma Symposium. Pittsburgh PA

2006 Conjunctival Closure Technique for Trabeculectomy. Annual Meeting of the American Glaucoma Society, Charleston SC

Participation in Symposia:-cont'd

2006 Innovations in Glaucoma Surgery – What's Hot? The Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2006 Zonular Compromise – Support Options. The Advances in Anterior Segment and Refractive Surgery, San Antonio TX

2006 Late IOL / Bag Dislocation. The Advances in Anterior Segment and Refractive Surgery, San Antonio TX

2006 New Instrumentation in Anterior Segment Surgery. The Advances in Anterior Segment and Refractive Surgery, San Antonio TX

2007 "Newer Surgical Approaches to Zonular Weakness", Invited Guest Speaker, American College of Eye Surgeons/Society for Excellence in Eyecare. SEE Island/Quality Surgery XXI Seminar. Atlantis, Paradise Island, Bahamas.

2007 Cataract Surgery and Zonular Weakness in Pseudoexfoliation. Annual Meeting of the American Glaucoma Society, San Francisco CA

2007 Trabeculectomy – My Preferred Technique. "Glaucoma Day" preceding the Annual Meeting of the American Society of Cataract and Refractive Surgery. San Diego CA

2007 New Operating Issues. Hot Topics Symposium. ASCRS Glaucoma Clinical Committee. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Diego CA

2007 Zonular Problems in Glaucoma Patients. Symposium: Innovations and Expertise in Practical Glaucoma Surgery. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Diego CA

2007 Modifying Cionni's Modified Capsular Tension Ring. Phaco Foldables and Refractive Results. Park City Utah

2007 Innovations in Glaucoma Surgery. Phaco Foldables and Refractive Results. Park City Utah

2007 Breaking Capsules Without Breaking Hearts. Phaco Foldables and Refractive Results. Park City Utah

Participation in Symposia:-cont'd

2007 Pearls for Managing the White Cataract. Phaco Foldables and Refractive Results. Park City Utah

2007 Avoiding and Managing Complications with Cataract Surgery in Pseudoexfoliation. Exfoliation Syndrome: Expanding Horizons. The 2007 Lindberg Symposium SOE, Vienna Austria, June 9-12, 2007. Joint Congress of SOE/AAO 2007 Vienna Austria

2007 Trabeculectomy: Avoiding Complications Glaucoma Subspecialty Day, November 10, 2007. New Orleans LA

2007 A Case for Individualized Patient Care – A Lesson from RJS. The Chandler Grant Glaucoma Society Annual Meeting. June 2007. Boston, MA

2007 Difficult Anterior Segment Surgery Cases. 35th Annual Alumni Meeting Ophthalmology 2007. SUNY Downstate Medical Center, Brooklyn NY

2008 "Phaco in the Management of Acute Angle Glaucoma" American College of Eye Surgeons / Society for Excellence in Ophthalmology Annual Meeting SEE Island / Quality Surgery XXII Seminar, San Juan Puerto Rico

2008 A Safer Trabeculectomy? – Beautifying a Dinosaur. New Techniques and Controversies in Cataract and Refractive Surgery. Park City Utah

2008 Cataract in Pseudoexfoliation – Early and Late Surgical Pearls. New Techniques and Controversies in Cataract and Refractive Surgery, Park City Utah

2008 The White Cataract – Keeping It Simple. New Techniques and Controversies in Cataract and Refractive Surgery. Park City Utah

2008 IOL Exchange – Making it Right. New Techniques and Controversies in Cataract and Refractive Surgery. Park City Utah

2008 "Contrary to Ordinary" Life Styles Symposium. Royal Hawaiian Eye Meeting, Kona Hawaii

2008 Conjunctiva Closure in Trabeculectomy, Glaucoma Video Symposium. Royal Hawaiian Eye Meeting, Kona Hawaii

Participation in Symposia:-cont'd

2008 New Aqueous Drainage Devices – Any Ready for Prime Time. Symposium on Glaucoma Drainage Devices. Moderators Jonathan Myers and David Greenfield. Annual Meeting American Glaucoma Society, Washington DC.

2008 Beautifying the Dinosaur: Improving on Trabeculectomy. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Making it Right: Pearls for IOL Exchange. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Moderator: Complications. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Pseudoexfoliation – My Favorite Mistake. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Tube Pearls. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Laser Trabeculoplasty. Which Laser? Which Glaucoma Types? When to Perform? Subspecialty Day – Glaucoma. World Ophthalmology Congress 2008. Hong Kong China

2008 Sutured Intraocular Lenses in Glaucomatous Eyes. Glaucoma and Cataract Management. World Ophthalmology Congress 2008. Hong Kong China

2008 ESCRS Live Surgery, Toric Implant, Berlin Germany

2008 Angle Closure Glaucoma: Better Surgical Management, Phillips Eye Institute, 2008 Ophthalmology Nightmares Conference, Minneapolis MN

2008 Glaucoma Surgery: Early & Late Complications & Pearls, Phillips Eye Institute, 2008 Ophthalmology Nightmares Conference, Minneapolis MN

2008 Trabeculectomy – My Approach. Glaucoma Subspecialty Day. AAO, Atlanta GA

Participation in Symposia:-cont'd

2008 Spotlight on Glaucoma: The Medical and Surgical Care of the Glaucoma Patient – Practical and Proven Approaches. Moderator. AAO, Atlanta GA

2008 Spotlight on Glaucoma: Presenter: Late IOL Dislocation-The Real Deal. AAO, Atlanta GA

2008 Academy Café: Glaucoma. Moderator. AAO, Atlanta GA

2008 Spotlight on Cataract Surgery: Cataract Complications – Video Case Studies: Why? What Now? How? IOL in Absence of Capsule Support – Posterior Chamber Technique. AAO, Atlanta GA

2008 Up Close and Personal: Hobbies of Leading Ophthalmologists (formerly Lifestyles Symposium). AAO, Atlanta GA

2009 Glaucoma Mid-Winter Symposium 2009, Miami Meltdown: The Glaucoma International Hockey Cup. 1st Period: Decision Making in Glaucoma; 2nd Period: Glaucoma Treatment; 3rd Period: Pearls and the Future of Glaucoma. Miami FL

2009 Glaucoma Surgery 2009: New Twists Techniques and Results. Park City UT

2009 "Alley Oop" for a Dislocated IOL. Park City UT

2009 Late IOL Dislocation: The Real Deal. Park City UT

2009 An Ugly Case Scenario. Park City UT

2009 Late IOL Dislocation-The Real Deal. Caribbean Eye 2009. ACES/SEE Jamaica

2009 Phaco and Acute Angle Closure Glaucoma. Caribbean Eye 2009. ACES/SEE Jamaica

2009 Complications Avoidance & Management: Video Case Presentations, Moderator. ASCRS Glaucoma Day, San Francisco CA

Participation in Symposia:-cont'd

2009 Tube Malpositioned in Visual Axis. ASCRS Glaucoma Day, San Francisco CA

2009 Acute Angle Closure – Better Surgical Management. Speaker, Cape Cod MA

2009 Late IOL Dislocation – The Real Deal. Speaker, Cape Cod MA

2009 Exfoliation Syndrome and Exfoliative Glaucoma (Presenter), "Cataract Surgery in Exfoliation Syndrome". World Glaucoma Congress, Boston MA

2009 Video Session Glaucoma Surgery (Presenter), "Trabectome". World Glaucoma Congress, Boston MA

2009 WGA-ASCRS Video Session Glaucoma & Cataract (Presenter), "Late IOL Dislocation: The Real Deal". World Glaucoma Congress, Boston MA

2009 Angle Closure Glaucoma – A New Era of Effective Surgical Therapy. Western University, London Canada

2009 Cataract Surgical Challenges in Pseudoexfoliation Syndrome. OSN New York Symposium

2009 "Trabs and Tubes – Let's Raise the Bar?" Surgical Glaucoma. OSN New York Symposium

2009 Glaucoma: New Surgical Options in Glaucoma. Chicago Ophthalmic Symposium: Prepare for 2010

2009 Complications and Challenging Cases, New Tricks and New Instrumentation: Video Presentations: IOL ExChange and Dislocated IOL – Fix It to the Iris. Chicago Ophthalmic Symposium: Prepare for 2010

2010 What's New in Glaucoma Surgery? From Trabs to tubes to Canaloplasty and More. Park City UT

2010 IOL Exchange – Things You Should Know. Park City UT

2010 Traumatic Cataract. Park City UT

2010 Posterior Polar Cataract. Park City UT

2010 Things to Put in the Bag: IOL's, Ring, and Segments. Faculty. Stephen S. Lane, MD Moderator. ASCRS Winter Update, Cancun Mexico

Participation in Symposia:-cont'd

2010 Surviving Disaster: Practical Approaches to Deal with Anterior Segment Complications and Challenges. Faculty. Stephen S. Lane, MD Moderator. ASCRS Winter Update, Cancun Mexico

2010 Surgical Management of Angle-Closure Glaucoma. Garry P. Condon MD and Robert D. Fechter MD Moderators. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Is Gonioscopy Enough? Point-Counter-Point. Surgical Management of Angle-Closure Glaucoma. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Techniques for Cataract Surgery in the Angle Closure Eye with a Shallow Chamber. Surgical Management of Angle-Closure Glaucoma. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Peer to Peer Discussion on the ExPRess Mini Shunt. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Eye World Education, Surgical Innovations to Optimize Glaucoma Treatment, Program Chair, "2010 Trab: Re-call or Tune-up?" ASCRS, Boston MA

2010 "Where Are We with Laser Trabeculoplasty in 2010?" ASCRS Glaucoma Day. Annual Meeting of the ASCRS. Boston MA

2010 "Complications Avoidance & Management," Video Case Presentation. ASCRS Glaucoma Day. Annual Meeting of the ASCRS. Boston MA

2010 "Techniques for Cataract Surgery in the Eye with a Shallow Chamber." Annual Meeting of the ASCRS. Boston MA

2010 Glaucoma Cataract Conference Main Speaker. University of Louisville KY

2010 Phaco to Better Manage Acute Angle Closure. Atlantic Eye Symposium. Halifax Nova Scotia

Participation in Symposia:-cont'd

2010 Pseudoexfoliation – Zonule Compromise and Counter Measures. Atlantic Eye Symposium. Halifax Nova Scotia

2010 Alcon's Live Surgery, Panelist. AAO. Chicago IL

2010 "Managing Complications of the Ex-PRESS." Subspecialty Day / Glaucoma 2010. AAO. Chicago IL

2010 Panel Discussion. AAO Cataract Spotlight Symposium AAO. Chicago IL

2010 Late Breakers Symposium. Chair AAO. Chicago IL

2010 Glaucoma Management:: Current and Future Treatment Options / Alcon. Miami Ophthalmic Symposium – Nurse & Technician Sessions. Miami FL

2010 Zonular Compromise / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 Q&A Panel / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 Video Symposium of IOL Malposition – Etiology & Treatment with Panel / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 IOL Repositioning / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 Glaucoma Surgery Update / Alcon. Miami Ophthalmic Symposium. Miami FL

2011 UGH! Single-Piece IOL Malposition. Getting the Red Out. Park City UT

2011 Update on Iris Fixation Technique, Video. Problem: Too Much Light. Park City UT

2011 "Post Traumatic Anterior Segment Reconstruct." Park City UT

2011 Trabeculectomy 2011 – Is There Still a Role? Park City UT

2011 Master the Shallow AC…In a Single Stroke, 3 Videos. Pressure Rising…Losing Support. Park City UT

2011 Challenging IOL Dislocation Dilemmas. Park City UT

2011 Toric IOLs in Glaucoma Patients. Park City UT

Participation in Symposia:-cont'd

2011 Zonule Compromise: New "Stuff" to Put in the Bag. Snowmass Ophthalmology Conference. Snowmass UT

2011 Breakfast with the Experts – Conjuntival Closure. American Glaucoma Society 21st Annual Meeting. Dana Point CA

2011 National Master Club: "Don't Ice the Trab." / Alcon Canada. Scottsdale AZ

2011 Case Presentations & Panel Discussion. Using Imaging Technology in the Real World. ASCRS. San Diego CA

2011 Into the Abyss and Back: Video Complications – Steps to Return from the Unknown. ASCRS. San Diego CA

2011 Ex-PRESS Glaucoma Filtration Device: Techniques and Pearls from the Experts. ASCRS. San Diego CA

2011 Acute Angle Closure Glaucoma: Better Surgical Management. 29th Annual Meeting-Update for the Comprehensive Ophthalmologist. Case Western Reserve University. Cleveland OH

2011 UGH? A Problematic Single-Piece IOL Syndrome. Kiawah 2011 Eye. Kiawah Island SC

2011 ExPRESS Glaucoma Filtration Device: Techniques and Pearls from the Experts / AAO Dinner Symposium. "Is Traditional Trabeculectomy Still Our Best Surgical Option?" AAO, Orlando FL

2011 Annual Meeting: Panelist. AAO, Orlando FL

2011 Spotlight on Cataract Complications: M&M Rounds – Learning From My Mistakes / AAO, Orlando FL

2011 Dealing With the Traumatic Cataract – It Hurts Just to Think of It. Chicago Ophthalmic Symposium, Chicago IL

2011 Why Am I Still Doing Trabs? All the New Hardware in Glaucoma Surgery. Chicago Ophthalmic Symposium, Chicago IL

2011 UGH! Chicago Ophthalmic Symposium, Chicago IL

Participation in Symposia:-cont'd

2011 Complications and Challenging Cases, New Tricks and New Instrumentation: My Favorite Case of the Year. Video Presentation. Chicago Ophthalmic Symposium, Chicago IL

2011 Update on Glaucoma. ASORN Ophthalmic Symposium: Prepare for 2012, Chicago IL

2012 Traumatic Cataracts-New Technology for Better Results. Park City Utah

2012 A Positive Spin on the Negative and Other Dark Shadows. Evening Video Session. Park City Utah

2012 Complex Cataract Case Video. Park City Utah

2012 Can't Take the Pressure, Make My IOL Work, Moderator – Glaucoma Surgery 2012. Park City Utah

2012 Negative Spin on the Positive Shadow of Doubt & Positive Gain. Park City Utah

2012 Complex Glaucoma Case Video. Park City Utah

2012 New Variations for Late IOL Dislocation. Park City Utah

2012 Glaucoma Grand Rounds: FACE OFF! Faculty. ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Traditional Trabeculectomy: Still the Gold Standard?" Breakfast Symposium / Alcon, ASCRS Chicago IL

2012 Glaucoma Surgery: Advances You and Your Patients Will Appreciate, Moderator. Alcon ASCRS, Chicago IL

2012 Surgical Glaucoma Spotlight: Novel and Traditional, Co-Moderator. ASCRS Glaucoma Day 2012. Chicago IL

2012 Meanwhile, Refining the Time Tested...Doing What We Really Do...Better. Introduction ASCRS Glaucoma Day 2012. Chicago IL

2012 Eye World Corporate Mornings Program / MST. ASCRS 2012. Chicago IL

Participation in Symposia:-cont'd

2012 Iris Suture Repair and IOL Fixation. ASCRS Glaucoma Day 2012. Chicago IL

2012 Pseudoexfoliation from A-Z. ASCRS Glaucoma Day 2012. Chicago IL

2012 Saving the Day: Falling One-Piece and 3-Piece IOLs. ASCRS Glaucoma Day 2012. Chicago IL

2012 ASCRS Town Hall: Glaucoma, Moderator. ASCRS, Chicago IL

2012 Intraocular Lens Exchange and Repositioning Techniques. ASCRS, Chicago IL

2012 Surgical Glaucoma, Faculty. Kiawah Eye 2012, Charleston SC

2012 Glaucoma Management: The New Era. Program Moderator / Alcon. Chicago IL

2012 Trabeculectomy 2012: Is There Still a Role? Loyola 5th Annual glaucoma Cataract Symposium, Chicago IL

2012 Acute Angle Closure Glaucoma: Better Surgical Management? Loyola 5th Annual Glaucoma Cataract Symposium, Chicago IL

2012 Glaucoma Case Presentations with Panel Discussion. Loyola 5th Annual Glaucoma Cataract Symposium, Chicago IL

2012 ExPRESS Glaucoma Management: The New Era. Alcon, Washington DC

2012 Surgical Approaches for Coexisting Cataract and Glaucoma. Vindico, Faculty Member CME Symposium, AAO, Chicago IL

2012 OSN New York 2012, Participation as a Faculty Member. Slack Incorporated, New York City NY

2012 Challenging Glaucoma Treatment Dilemmas, Chicago Ophthalmic Symposium, Chicago IL

2012 Glaucoma Surgical Update, Chicago Ophthalmic Symposium, Chicago IL

Participation in Symposia:-cont'd

2012 Simplifying In-Bag IOL Dislocation and CTR/Management of Malpositioned IOLs, Chicago Ophthalmic Symposium, Chicago IL

2012 Complications and Challenging Cases, New Tricks and New Instrumentation: My Favorite case of the Year. Video Presentations. Jobson, Chicago Ophthalmic Symposium, Chicago IL

2013 "Glaucoma Dilemmas I." Cornea/Glaucoma. Park City Utah

2013 "Pseudoexfoliation Caveats and Controversies." Cataract Techniques. Park City Utah

2013 "What Not to Do, What Not to Do Next, and Then What Not to Do After That." Video Session. Park City Utah

2013 "Glaucoma Dilemmas II." Glaucoma/Complex Cases. Park City Utah

2013 "Cataract "Plus" for the Glaucoma Patient: Who's on Board?" Glaucoma/Complex Cases. Park City Utah

2013 "IOL Exchange...and Exchange." Video Session. Park City Utah

2013 "Subluxed IOL: Tweaking Your Technique." Video Session. Park City Utah

2013 "Zonule Compromise and Counter Measures." Controversies in Ophthalmology. 81st Midwinter Conference. Los Angeles CA

2013 "The Cataract Surgeon's Options to Help Control Glaucoma." Controversies in Ophthalmology. 81st Midwinter Conference. Los Angeles CA

2013 "Acute Angle Closure – Better Surgical Management." Controversies in Ophthalmology. 81st Midwinter Conference. Los Angeles CA

2013 "The Cataract Surgeon's Options to Help Control Glaucoma." Glaucoma and Cataract Visiting Professor Dinner. University of Manitoba, Winnipeg Canada

Participation in Symposia:-cont'd

2013 "Glaucoma Case Dilemmas – What Can We Learn?" Glaucoma and Cataract Visiting Professor Morning. University of Manitoba, Winnipeg Canada

2013 "Acute Angle Closure – Better Surgical Management." Glaucoma and Cataract Visiting Professor Morning. University of Manitoba, Winnipeg Canada

2013 Cataract Surgery: Techniques and Technology Updates – Phaco the Rock: My Take. National Master Club. San Diego CA

2013 Cataract Surgery: Challenging Cases – What not to do, and what not to do next.....National Master Club. San Diego CA

2013 Glaucoma Update: Surgical and Medical – Cataracts and Glaucoma. National Master Club. San Diego CA

2013 Glaucoma Update: Surgical and Medical – Pseudoexfoliation Surgical Issues. National Master Club. San Diego CA

2013 Glaucoma Update: Surgical and Medical – ACG Case. National Master Club. San Diego CA

2013 Surgical Glaucoma Spotlight: Part III – Back to Basics. "Fornix-based Closure." ASCRS Glaucoma Day. San Francisco CA

2013 Angle Closure Symposium: A to Z – Co-Moderator, ASCRS Glaucoma Clinical Committee. San Francisco CA

2013 Angle Closure Symposium: A to Z – Speaker, "Aqueous Misdirection or Malignant Glaucoma and other Challenges." ASCRS Glaucoma Clinical Committee. San Francisco CA

2013 From Good to Great: Surgical Pearls – Faculty, Panelist (Video-Based Section), Kiawah 2013 Eye. Kiawah Island SC

2013 Glaucoma – Panelist, Kiawah 2013 Eye. Kiawah Island SC

Participation in Symposia:-cont'd

2013 "Out of MIND, Out of SIGHT: Avoiding the Dire Consequences of Non-adherence to Glaucoma Therapy" – VINDICO Medical Education. Faculty Member for a CME Symposium, Kiawah 2013 Eye. Kiawah Island SC

2013 "Advancing Filtration Surgery: Surgical Pearls and Clinical Benefits" – Program Moderator / Alcon. Boston MA

2013 "Managing Compromised Zonules" – OSN New York, Waldorf Astoria. New York NY

2013 "Does This Patient Need Glaucoma Surgery?" – OSN New York, Waldorf Astoria. New York NY

2013 Case Conference, Panelist – OSN New York, Waldorf Astoria. New York NY

2013 Hot Topics in Glaucoma, Panelist – OSN New York, Waldorf Astoria. New York NY

2013 Glaucoma 2013: "The Future is Now" – Panelist. AAO New Orleans LA

2013 Cataract Poster Tour Leader. Symposia Chair. AAO New Orleans LA

2014 "Refining Late In-the-bag IOL Positioning." Reaching New Peaks 2014. Park City Utah

2014 "MITS" (Minimally Invasive Trabeculectomy Surgery). Reaching New Peaks 2014. Park City Utah

2014 "Stress Free Phaco In Pseudoexfoliation." Reaching New Peaks 2014. Park City Utah

2014 "The Girl, the Ring, Everything." Video. Reaching New Peaks 2014. Park City Utah

2014 "Video Symposium of Challenging Cases and Complications Management During Cataract Surgery." Faculty, Case Presentation. ASCRS ASOA Winter Update 2014. Fajardo Puerto Rico

2014 "What's New in Technology." Faculty, Case Presentation. ASCRS ASOA Winter Update 2014. Fajardo Puerto Rico

Participation in Symposia:-cont'd

2014 "Rapid F-Eye-R: You Make the Call." Faculty. ASCRS ASOA Winter Update 2014. Fajardo Puerto Rico

2014 "Café Style Discussion: 10 Years Down the Road – What's Still on the "To-do" List." Moderator. ASCRS Glaucoma Day 2014. Boston MA

2014 "Dislocated IOL in Glaucoma Patient." Glaucoma Lead. ASCRS Glaucoma/Retina Joint Symposium. Boston MA

2014 Paper Session – Title: 3-K Glaucoma. Moderator. ASCRS ASOA. Boston MA

2014 "Cataract Surgery in Pseudoexfoliation Syndrome." Symposium, Managing Refractive Issues in Glaucoma Patients. ASCRS ASOA. Boston MA

2014 "Express Glaucoma Surgery." Kiawah 2014 Eye. Kiawah Island SC

2014 "Small Pupil Surgery." Kiawah 2014 Eye. Kiawah Island SC

2014 "The Dislocated IOL: New Frontiers." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "MIGS: Update for Cataract Surgeons." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Pseudoexfoliation: Something for Everyone." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Traumatic Cataract: Stay in Control." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Glaucoma Dilemmas." (interactive). 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 ""MITS: Minimizing the Invasiveness of Transscleral Glaucoma Surgery." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Refined Approaches to IOL Dislocation." Cataracts / New Technology. Winter Ophthalmic Symposium. New York City NY

Participation in Symposia:-cont'd

2014 "Surviving Pseudoexfoliation." Glaucoma. Winter Ophthalmic Symposium New York City NY

2014 "MIGS – Are We There Yet?" Glaucoma. Winter Ophthalmic Symposium New York City NY

2014 "You Make the Call" (Intraoperative Management Challenges). Video Presentations: Complications // Challenging Cases // Pearls. Winter Ophthalmic Symposium. New York City NY

2014 Cataracts / New Technology. Faculty. Winter Ophthalmic Symposium. New York City NY

2014 Choices of IOLs in Current Cataract Surgery – How I do It..... Faculty. Winter Ophthalmic Symposium. New York City NY

2015 "MIGS": Are We There Yet? It's Time to Wake UP...and Bring the Pressure Down. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "You Make the Call." Glaucoma Panel. It's Time to Wake Up...and Bring the Pressure Down. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "Posterior Polar – a Backward View." Moderator Video Session. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "Surviving Pseudoexfoliation." Fun with Femto and Phaco. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "You Make the Call." Video Session. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "Refined Approaches to IOL Dislocation." ...And It's Just That Easy. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "The Surgical Management of Primary and Secondary Pigment Dispersion Glaucoma." (Similarities and Differences from Poag) Video Case Studies. ASCRS Glaucoma Day 2015. San Diego CA

Participation in Symposia:-cont'd

2015 Café Style Discussion: Medical Management of Glaucoma-Best Practices When the Real World Gets in the Way. Moderator. ASCRS Glaucoma Day 2015. San Diego CA

2015 "Complications and a "Reay of Hope." Video Case. Moderator. ASCRS Glaucoma Day 2015. San Diego CA

2015 "Glaucoma Dilemmas." Faculty. Kiawah Eye 2015. Charleston SC

2015 "Posterior Polar Cataract – Do's and Don'ts." Challenges in Cataract Surgery. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "IOL Dislocation." Postoperative Care and Complications. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "MIGS." Glaucoma and Other Challenges. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "The Broken Pupil." Glaucoma and Other Challenges. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "Tougher Than the Rest – Ultimate IOL Repositioning." Video Presentation 2015 Winter Ophthalmic Symposium. New York City NY

2016 "MIGS": 101 – More on Getting It Right. When You Just Can't Take the Pressure. 2016 Innovative Techniques & Controversies in Ophthalmology Park City UT

2016 "You Make the Call." Glaucoma Panel. When You Just Can't Take the Pressure. 2016 Innovative Techniques & Controversies in Ophthalmology. Park City UT

2016 Video Session. Moderator. 2016 Innovative Techniques & Controversies in Ophthalmology. Park City UT

2016 "IOL Dislocation – Newer Tricks." Making Lemonade from Lemons - Challenging Cases and Help from New Technology. 2016 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2016 "Tougher than the Rest." Video Session. All Things IOL's – "Let Me Count the Ways." 2016 Innovative Techniques & Controversies in Ophthalmology Park City Utah

Participation in Symposia:-cont'd

2016 "My Leak-Proof Closure #1." Surgical Faceoff: Let Me Show You How to Do It Better. Surgery Day. American Glaucoma Society 2016 Annual Meeting. Fort Lauderdale FL

2016 Café Style Discussion: EHR Moderator. Glaucoma Day. ASCRS ASOA New Orleans LA

2016 Complications and a "Reay of Hope," Moderator, Video Case. Glaucoma Day. ASCRS ASOA. New Orleans LA

2016 Glaucoma: MIGS. ASCRS Paper Session. Moderator. ASCRS ASOA New Orleans LA

2016 Intraluminal Nd: YAG Treatment of Patients with an IOP Rise After Glaucoma Device Implantation. Paper Sessions. ASCRS ASOA New Orleans LA

2016 MIGS: How to Incorporate Safer Surgery–Technique, Patient Selection and Enhanced Patient Outcomes. Panelist. ASCRS ASOA. New Orleans LA

2016 Stepping Up Your Game: Going from Good to Great: Pearls to Use in Your Practice. Dislocated IOL? New Strings Attached. Kiawah Eye 2016. Kiawah Island SC

2016 Glaucoma, Moderator. Kiawah Eye 2016. Kiawah Island SC

2016 Newer Tricks for Intraocular Lens Dislocation in Exfoliation. Kiawah Eye 2016. Kiawah Island SC

2016 Glaucoma, Video Case Presentation. Kiawah Eye 2016. Kiawah Island SC

2017 "Glaucoma Meds – New Targets and Modes." 2017 Surgical Summit. Park City Utah

2017 "How and When to Use a Trabecular Meshwork Stent." 2017 Surgical Summit. Park City Utah

2017 "New MIGS Options." 2017 Surgical Summit. Park City Utah

Participation in Symposia:-cont'd

2017 Roundtable: "Glaucoma Surgery: Sorting Out Options for the Comprehensive Ophthalmologist." Moderator. 2017 Surgical Summit. Park City Utah

2017 General Session: Video Triumphs and Tragedies I. "Fixation Frustration." 2017 Surgical Summit. Park City Utah

2017 General Session: IOLs: New Advances, Same Old Problems. "Dislocated IOLs – Hoops and Loops." 2017 Surgical Summit. Park City Utah

2017 General Session: Video Triumphs and Tragedies II. "Surprise Package." 2017 Surgical Summit. Park City Utah

2017 Café Style Discussion. Moderator. ASCRS Glaucoma Day. Los Angeles CA

2017 Video Case Presentations: Complications and a "Reay of Hope." Panelist. ASCRS Glaucoma Day. Los Angeles CA

2017 Suture Fixation: Is There Something Better. Kiawah Eye 2017. Kiawah Island SC

2017 Glaucoma iStent For Me: When and How. Kiawah Eye 2017. Kiawah Island SC

2017 Glaucoma Pseudoexfoliation IOL Dislocation: Evolving Fixation Surgery. Kiawah Eye 2017. Kiawah Island SC

2017 Fixation Frustration. Kiawah Eye 2017. Kiawah Island SC

2017 Hot Topics in Glaucoma Case Presentation. Kiawah Eye 2017. Kiawah Island SC

2017 "Posterior Polar: Do's & Don'ts." 16 Annual Downeast Ophthalmology Symposium – Practical Solutions in Ophthalmology. Bar Harbor ME

2017 "Late IOL Dislocation: Evolving Fixation Surgery." 16th Annual Downeast Ophthalmology Symposium – Practical Solutions in Ophthalmology. Bar Harbor ME

Participation in Symposia:-cont'd

2017 "Surgical Triumphs and Tragedies: A Video Potpourri." (with Dr. Ayres) 16th Annual Downeast Ophthalmology Symposium – Practical Solutions in Ophthalmology. Bar Harbor ME

Advisory Boards:

2010 Allergan Surgical Innovations Advisory Board Meeting. Phoenix AZ

2010 Glaucoma Management: The Next Era. Glaucoma Advisory Board Meeting / Incision. Chicago IL

2010 New Techniques in Outflow Surgery: Overview and Current Limitations. New Directions in the Surgical Management of Glaucoma / Allergan. San Francisco CA

2010 Internal (Canal) Shunts. New Directions in the Surgical Management of Glaucoma / Allergan. San Francisco CA

2010 Closure Technique / Alcon. Glaucoma Management: The Next Era. Dallas TX

2010 Glaucoma and the Toric IOL / Alcon. Glaucoma Management: The Next Era. Dallas TX

2010 Panel Discussion / Alcon. Glaucoma Management: The Next Era. Dallas TX

2011 Glaucoma Management: The New Era Educational Program / Alcon. Fort Lauderdale FL

2011 Glaucoma and the Toric IOL. Glaucoma Management: The New Era / Alcon. Toronto Canada

2011 Panel Discussion. Glaucoma Management: The New Era / Alcon. Toronto Canada

2011 Roundtable Breakout Discussions: Ex-PRESS Glaucoma Filtration Device. Yellow Group. Glaucoma Management: The New Era / Alcon. Toronto Canada

Advisory Boards:-cont'd

2011 Glaucoma Surgery Advisory Board. Alcon. AAO, Orlando FL

2011 Improving Predictability in Filtration Surgery – ExPRESS Glaucoma Filtration Device Breakfast. Speakers Lecture – ExPRESS Latin American Ad Board with Vital Costa. AAO, Orlando FL

2011 Allergan Glaucoma Vision for the Future Advisory Board Meeting. New York City NY

2012 Advanced Glaucoma Surgery Advisory Council. Alcon, Philadelphia PA

2012 Glaucoma Today Editorial Advisory Board. AAO, Chicago IL

2012 Rescula Regional Advisory Board, SUCAMPO Pharma Americas, LLC. Philadelphia PA

2013 Participation at Alcon's Glaucoma Speaker Training. Dallas TX

2015 Participation at Alcon's Glaucoma Speaker Training. Coral Gable FL

2015 Alcon Glaucoma Advisory Summit. Boston MA

2015 Roundtable Advisory Session and NIBR Tour. Novartis Institute of Bio/ Medical Research

2016 Allergan Round Table Discussion. ASCRS ASOA. New Orleans LA

2016 Allergan XEN 45 Advisory Board Meeting. ASCRS ASOA. New Orleans LA

2016 Alcon Advisory Meeting – Engage to Further Alcon's Mission: New Ways to Enhance Sight and Improve People's Lives. Fort Worth TX

2017 Hydrus Advisory Panel Meeting. Ivantis Inc. ASCRS. Los Angeles CA

2017 Alcon Surgical Glaucoma Team, Express Advisory Board. ASCRS ASOA Los Angeles CA

2017 Georgia Ophthalmology Society Annual Meeting. Keynote speaker, Pseudoexfoliation, Complex Cataract Surgery. Amelia Island, FL

2019 North Carolina Eye Society Annual Meeting. Keynote speaker, Pseudoexfoliation, Complex Cataract Surgery, Malignant Glaucoma. Asheville, NC

Instruction Courses:

1987 "Contemporary Glaucoma", Course director Richard J. Simmons. American Academy of Ophthalmology Annual Meeting, Dallas, TX

1987 "Practical Aspects of Photocoagulation", Course Instructor, Massachusetts Eye and Ear Infirmary, Boston, MA

1988 "Solving Glaucoma Problems", Course Instructor, Massachusetts Eye and Ear Infirmary, Boston, MA

1992 "Filtering Surgery in Conjunction with Cataract Surgery, Use of Mitomycin", Advanced Phacoemulsification Course (Alcon Surgical), Chicago, IL

1993 "Co-existent Cataract and Glaucoma - Options and Incisions", Advanced Phacoemulsification Course, (Alcon Surgical), Philadelphia, PA

1993 "Special Considerations in Combined Surgery - Antimetabolites", Advanced Phacoemulsification Course, (Alcon Surgical), Philadelphia, PA

1994 "Options, Incisions and Pearls for Managing Coexistent Glaucoma and Cataract", Course Director, American Academy of Ophthalmology Annual Meeting, San Francisco, CA

1995 "Options, Incisions, and Pearls for Managing Coexistent Glaucoma and Cataract", Course Director, American Academy of Ophthalmology Annual Meeting, Atlanta, GA

1996 "Options, Incisions and Pearls for Managing Coexistent Glaucoma and Cataract", Course Director, American Academy of Ophthalmology Annual Meeting, Chicago, IL

1996 "Advanced Phacoemulsification and PhacoRefractive Results", Faculty, Sponsored by Alcon Surgical, Rochester, NY

1997 "Advanced Concepts in Phacoemulsification", Faculty, Alcon Surgical Ophthalmic Symposium, Baltimore, MD

1997 Glaucoma Surgical Skills Transfer Course. Course director George Cioffi. American Academy of Ophthalmology Annual Meeting, San Francisco CA

1998 "Advanced Concepts in Phacoemulsification", Faculty, Alcon Surgical Ophthalmic Symposium, Chicago IL

Instruction Courses:-cont'd

1999 Phacoemulsfication in the Previously Filtered Eye, Sponsored by Alcon Surgical, San Antonio, TX

1999 Glaucoma Surgery – New Trends & New Complications, Sponsored by Alcon Surgical, San Antonio, TX

2001 Diagnosis and management of non-infectious epiphora. Course director Kim Cockerham. Annual Meeting of the American Academy of Ophthalmology, New Orleans LA

2002 Advanced Concepts in Anterior Segment Surgeries. Course director Stephen Lane. San Antonio TX

2002 Hypotony got you down? Effective surgical management of late bleb-related hypotony. Course director. Annual Meeting of the American Academy of Ophthalmology, Orlando FL

2002 Diagnosis and management of non-infectious epiphora. Course director Kim Cockerham. Annual Meeting of the American Academy of Ophthalmology, Orlando FL

2002 Managing the patient with both cataract and glaucoma. Course directors Sam Masket and Alan Crandall. Annual Meeting of the American Academy of Ophthalmology, Orlando FL

2003 Phaco Foldables and Refractive Results. Course director Alan Crandall. Park City UT

2003 The McCannel Suture revisited – Applications in managing IOL complications and aphakia. Course director. Annual meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2003 UPMC Annual Resident Phacoemulsification Course – Faculty

2003 Hypotony got you down? Effective surgical management of late bleb-related hypotony. Course director. Annual Meeting of the American Academy of Ophthalmology, Anaheim CA

2003 Managing the patient with both cataract and glaucoma. Course directors Sam Masket and Alan Crandall. Annual Meeting of the American Academy of Ophthalmology, Anaheim CA

Instruction Courses:-cont'd

2004 Phaco Foldables and Refractive Results. Course director Alan Crandall. Park City UT

2004 Postoperative IOL dislocation and decentration management. Ike Ahmed MD Course director. Annual Meeting of the ASCRS, San Diego CA

2004 McCannel's Suture and Iris Support: Solving Aphakia and IOL Dislocation. Course director. Annual Meeting of the ASCRS. San Diego CA

2004 Managing the Patient with Both Cataract and Glaucoma. Sam Masket MD and Alan Crandall MD course directors. Annual meeting of the AAO, New Orleans LA

2004 Hypotony Got You Down? Effective Surgical Therapy for Late Post Filtration Hypotony. Course director. Annual Meeting of the AAO, New Orleans LA

2005 Innovations in Iris Fixation: Solving Aphakia and IOL Dislocation. Course director. Annual Meeting of the ASCRS, Washington DC

2005 Postoperative IOL dislocation and Decentration. Ike Ahmed MD, Course director. Annual Meeting of the ASCRS, Washington DC

2005 Effective Surgical Therapy for Late Post-Filtration Hypotony. Annual Meeting of the AAO, Chicago IL

2005 Combined Phaco and Glaucoma Surgery. Annual Meeting of the AAO, Chicago IL

2005 Glaucoma filtration surgery for residents. (skills transfer) Annual meeting of the AAO, Chicago IL

2006 Innovations in Iris Fixation: Solving Aphakia and IOL dislocation. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2006 Postoperative IOL Dislocation and Decentration Management. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

Instruction Courses:-cont'd

2006 Capsular Tension Rings. (skills transfer) Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2006 Iris Abnormalities: Techniques and Devices for Surgical Reconstruction. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2006 Glaucoma Filtration Surgery for Residents. (Skills Transfer) Annual Meeting of the AAO, Las Vegas NV

2006 Combined Phaco and Glaucoma Surgery. Annual Meeting of the AAO, Las Vegas NV

2006 The Ultimate Guide to Capsular Tension Ring Use. Annual Meeting of the AAO, Las Vegas NV

2007 Capsular Tension Rings and Techniques for Capsular-Zonular Stabilization. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego CA

2007 Postoperative IOL Dislocation and Decentration Management. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego CA

2007 Innovations in Iris Fixation: Solving Aphakia and IOL Dislocation. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego, CA

2007 Capsular Tension Rings. Laboratory Skills Transfer Course. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego CA

2007 "IOL Fixation in the Absence of Capsule Support". Advanced Phacoemulsification. Course Director William Fishkind. AAO, New Orleans LA

2007 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support. AAO, New Orleans LA

Instruction Courses:-cont'd

2007 Combined Phaco and Glaucoma Surgery. Course Directors Sam Masket and Alan Cradall. AAO, New Orleans LA

2007 Advanced Phacoemulsification (Wet Lab). AAO, New Orleans LA

2007 Combined Phaco and Glaucoma Surgery (Wet Lab). AAO, New Orleans LA

2007 Glaucoma Filtration Surgery (Wet Lab) for Ophthalmology Residents. AAO, New Orleans LA

2008 Management of Malpositioned IOL's. Course Director Alan Crandall. Annual Meeting of the American Society of Cataract and Refractive Surgery.

2008 Advanced Phacoemulsification – Iris Suture IOL. AAO, Atlanta GA

2008 Advanced Phacoemulsification (Lab). AAO, Atlanta GA

2008 Glaucoma Filtration Surgery Lab for Ophthalmology Residents. AAO, Atlanta GA

2008 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support. Co-Instructor. AAO, Atlanta GA

2008 Combined Phaco and Glaucoma Surgery – Phaco for Acute Angle Closure. AAO, Atlanta GA

2008 Combined Phaco and Glaucoma Surgery (Lab). AAO, Atlanta GA

2009 Phaco for Acute Angle-Closure Glaucoma. Annual Course - Current Concepts in Ophthalmology, Vail CO

2009 Zonule Complexities and Counter Measures. Annual Course – Current Concepts in Ophthalmology, Vail CO

2009 IOL Exchange – Things You Should Know. Annual Course – Current Concepts in Ophthalmology, Vail CO

2009 Advanced Phacoemulsification, Instructor. AAO, San Francisco CA

2009 Anterior Segment Surgical Challenges, Panelist. AAO, San Francisco CA

Instruction Courses:-cont'd

2009 Combined Phaco and Glaucoma Surgery. Phaco for Managing Angle Closure Glaucoma, Instructor. AAO, San Francisco CA

2009 Academy Café: Glaucoma Chair. AAO, San Francisco CA

2009 Glaucoma Filtration Surgery Lab for Ophthalmology Residents, Instructor. AAO, San Francisco CA

2009 Spotlight on Pseudoexfoliation: New Pearls from Glaucoma and Cataract Experts, Presenter. Advances in Glaucoma Surgery: Any Help in Pseudoexfoliation? AAO, San Francisco CA

2009 Innovative Approach to Iris Fixation of an IOL Without Capsular Support, Instructor. AAO, San Francisco CA

2010 Intraocular Lens Exchange and Repositioning Techniques, ASCRS Course Faculty. Annual Meeting of the American Society of Cataract and Refractive Surgery. Boston MA

2010 Glaucoma Management: ExPRESS Glaucoma Mini-Shunt Training / Incision. Chicago IL

2010 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction Skills Transfer Course. Suture Fixation of IOLS. AAO, Chicago IL

2010 Advanced Phacoemulsification LAB162C, Instructor. AAO, Chicago IL

2010 An Innovative Approach to Iris Fixation of an IOL Capsular Support: Hands On and Practical, Instructor. AAO, Chicago IL

2011 Hanging It on the Iris: Suture Solutions to Anterior Segment Enigmas. ASCRS-ASOA. San Diego CA

2011 Intraocular Lens Exchange and Repositioning Techniques. ASCRS. San Diego CA

2011 Iris Repair Technique (Siepser). ASCRS. San Diego

2011 Dislocated IOL's. ASCRS. San Diego

Instruction Courses:-cont'd

2011 ExPRESS Training Meeting / Alcon. New York City NY

2011 Alcon Live Surgery Broadcast / Faculty Panel. AAO, Philadelphia PA (Orlando FL)

2011 Managing Angle-Closure Glaucoma With Crystalline Lens Removal and Adjunctive Procedures. Instructor AAO, Orlando FL

2011 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor AAO, Orlando FL

2011 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support: Hands On and Practical. Instructor AAO, Orlando FL

2011 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Lab Instructor AAO, Orlando FL

2011 Glaucoma Filtration Surgery Lab for Ophthalmology Residents. Lab Instructor AAO, Orlando FL

2012 Challenging Cases for the Comprehensive Clinician: A Multi-Disciplinary Approach to Management of Complex Cases. Faculty, ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Glaucoma Management Pearls: From Every Day Decisions to Advancing Surgery. Faculty, ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Glaucoma Hardware 2012: So Why As I Still Doing Trabs?? Optometry CE Course. Cranberry PA

2012 Skills Transfer Lab STS3: Iris Suture. ASCRS Glaucoma Day 2012. Chicago IL

2012 Iris Repair Technique (Siepser). ASCRS. Chicago IL.

2012 Dislocated IOL's. ASCRS. Chicago IL

2012 Video Grand Rounds: Management of Cataract and Refractive Surgery – What I Would Have Done Differently. Panelist Kiawah Eye 2012. Charleston SC

Instruction Courses:-cont'd

2012 Dinner Program / Faculty, Glaucoma Surgery: Filtering Out the Variables. AAO. Chicago IL

2012 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor. AAO. Chicago IL

2012 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support: Hands-On and Practical. Instructor. AAO. Chicago IL

2012 Glaucoma Surgical Lab for Ophthalmology Residents. Instructor. AAO Chicago IL

2012 Managing Angle – Closure Glaucoma with Crystalline Lens Removal and Adjunctive Procedures. Instructor. AAO. Chicago IL

2013 Iris Repair Technique. ASCRS. San Francisco CA

2013 Dislocated IOL's. ASCRS. San Francisco CA

2013 Iris Suture Skills. Co-Instructor ASCRS. San Francisco CA

2013 Transfer Session Lab / Steven Siepser. ASCRS. San Francisco CA

2013 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor AAO. New Orleans LA

2013 Managing Angle-Closure Glaucoma With Crystalline Lens Removal and Adjunctive Procedures. Instructor AAO. New Orleans LA

2013 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor LAB AAO. New Orleans LA

2013 Iris Suture Fixation of IOLs. AAO. New Orleans LA

2013 Glaucoma Surgical Lab for Ophthalmology Residents. Instructor AAO. New Orleans LA

2014 Management of Complex Cataract. Instructor. ASCRS ASOA Winter Update 2014. Farjardo Puerto Rico

2014 Lecture Grand Rounds. Faculty Storm Eye Institute MUSC. Charleston Ophthalmology Society. Charleston SC

Instruction Courses:-cont'd

2014 Iris Suture Repair and IOL Fixation. Faculty. Didactic Course, Dr. Steven Siepsen. ASCRS ASOA. Boston MA

2014 Iris Suture Skills Transfer Session Lab (Dr. Steven Siepsen). Co-Instructor. ASCRS ASOA. Boston MA

2014 Intraocular Lens Exchange and Repositioning Techniques. ASCRS Course ASCRS ASOA. Boston MA

2015 Iris Suturing Techniques. Faculty. ASCRS Clinical Course. ASCRS ASOA. San Diego CA

2015 Iris Suture. Skills Lab. Co-Instructor. ASCRS ASOA. San Diego CA

2015 Intraocular Lens Exchange and Repositioning Techniques. Faculty. ASCRS Clinical Course. ASCRS ASOA. San Diego CA

2016 Iris Suturing Techniques. Faculty. ASCRS ASOA. New Orleans LA

2016 STS-6 Iris Suture, Skills Transfer Lab. Co-Instructor. ASCRS ASOA New Orleans LA

2016 Training Mission. Teaching and training the KATH Glaucoma surgeons at Komfo Anoyoke Teaching Hospital. Kumasi, Ghana

2017 "Iris-Suturing Techniques." Co-Instructor. ASCRS ASOA. Los Angeles CA

2017 "Iris Suture" Skills Transfer Labs. Co-Instructor. ASCRS ASOA. Los Angeles CA

Presentations:

1987 "Current Adjuncts in The Management of the Filtration Bleb", Department of Ophthalmology, University of Western Ontario, London, Ontario

1988 "Post-Operative Adjuncts in Filtration Surgery", Department of Ophthalmology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada

1988 "Glaucoma", Guest Lecturer for Lions Club, Pittsburgh, PA

Presentations:-cont'd

1988 "Argon Laser Suture Lysis Following Trabeculectomy", Alumnus, Annual Resident's Day, Department of Ophthalmology, University of Western Ontario, London, Ontario, Canada

1988 "Post-Operative Adjuncts in Filtration Surgery", Department of Ophthalmology, St. Francis Medical Center, Pittsburgh, PA

1990 "An Approach to the Glaucoma Patient", Beaver Valley Optometric Society

1991 "Associated Ocular Trauma", Participant, Contemporary management of Facial Trauma and Concomitant Injuries, Allegheny General Hospital, Pittsburgh, PA

1991 "Glaucoma", Lecture to the Pittsburgh Ophthalmology Society for Ophthalmic Medical and Office Personnel

1992 "Glaucoma Applanation and Indentation Tonometry", Guest Speaker, Pittsburgh Ophthalmology Society Annual Meeting for Ophthalmic Medical and Office personnel, Pittsburgh, PA

1992 "Particulate Glaucoma", Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA

1992 "Management of Glaucoma in Anterior Segment Disease", Participant, Cornea/Anterior Segment Update, Quarterly Visiting Professor Series, Allegheny General Hospital, Pittsburgh, PA

1992 "A General Approach to the Glaucoma Patient", Pennsylvania Optometric Association, Annual Congress Meeting, Champion, PA

1992 "Anterior Segment Evaluation in the Open Angle Glaucoma Patient", Pennsylvania Optometric Association, Annual Congress Meeting

1992 "Pitfalls in Automated Perimetry", Pennsylvania Optometric Association, Annual Congress Meeting

1993 "Glaucoma", Presentation at Ophthalmic Grand Rounds for Ophthalmic Medical and Office Personnel, Pittsburgh Ophthalmology Society

1993 "Exfoliation Syndrome", Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA

Presentations:-cont'd

1993 "Mitomycin in Combined Surgery", Nantucket Glaucoma Annual Meeting, Nantucket, MA

1993 "Filtering Surgery with Mitomycin: A Case Presentation", Guest Speaker, Association of Technical Personnel in Ophthalmology, Chicago, IL

1995 "Co-Existent Cataract and Glaucoma: Options, Incisions and Pearls", Ivey Institute of Ophthalmology, University of Western Ontario, London, Ontario, Canada

1995 "Mitomycin in Combined Cataract and Glaucoma Surgery", Ivey Institute of Ophthalmology, University of Western Ontario, London, Ontario, Canada

1996 "Coexistent Glaucoma and Cataract -- Options, Incisions and Pearls", West Virginia Ophthalmology Society for Otsuka America Pharmaceutical, Inc., Charleston, WV

1996 "Glaucoma Surgery - New Trends and New Complications", Current Trends in Optometry Conference, Robert Morris College, Pittsburgh, PA

1996 Pennsylvania Assoc. for the Blind, Guest speaker, Sharon PA

1997 "Glaucoma: New Trends – New Complications", Pennsylvania Association for the Blind 1997 Conference, Sharon, PA

1998 Canton Ophthalmology Society, "Glaucoma: New Trends-New Complications", Canton OH

1998 New Strategies in Glaucoma Management, "Adjunctive Therapy 1998: Let's be Rational", Atlantic City, NJ

1999 Allergan Glaucoma Symposium, "Initial Therapy", Washington, D.C.

1999 Buffalo Eye Club, Guest speaker, Buffalo NY "Coexistent Glaucoma and Cataract"

1999 "Co-existent Glaucoma & Cataract", University of Alberta, Edmonton, Canada

1999 "Glaucoma Surgery – New Trends & New Complications", University of Alberta, Edmonton, Canada

Presentations:-cont'd

1999 "Co-existent Glaucoma & Cataract", University of Saskatchewan, Saskatchewan, Canada

1999 Glaucoma Surgery – New Trends & New Complications", University of Saskatchewan, Saskatchewan, Canada

1999 "Initial Therapy: Let's Be Rational", Open Angle Glaucoma: A Focus on Current Management, New York, NY

2000 "Initial Therapy 2000", Reading PA

2000 "Initial Glaucoma Therapy", Sponsored by Allergan. Toronto, Canada

2000 "Initial Glaucoma Therapy", Sponsored by Allergan. London, Canada

2000 "Surgical Management of Glaucoma", Visiting Professor, Dalhousie University, Halifax, Canada

2000 Initial Glaucoma Therapy. Sponsored by Allergan, St. John's, Canada

2000 Initial Glaucoma Therapy. Sponsored by Allergan, New York NY

2001 Trends and Complications in Glaucoma Surgery. Annual Canadian Master's Club meeting, sponsored by Alcon, Tuscon AZ

2001 Revising the Failing Filter. Annual Canadian Master's Club meeting, sponsored by Alcon, Tuscon AZ

2001 Handle That Leaking Bleb. Annual Canadian Master's Club meeting, sponsored by Alcon, Tuscon AZ

2001 Optics, Haptics and Acrylics. Sponsored by Alcon, Baltimore MD

2001 Glaucoma Therapy – What is Success? Erie Ophthalmology Society meeting, Erie PA

2001 Glaucoma Therapy – What is Success? Sponsored by Alcon, Pittsburgh PA

2001 Optics, Haptics and Acrylics. Atlantic Canada Master's Club meeting, sponsored by Alcon, St. John's, Canada

Presentations:-cont'd

2002 Glaucoma Therapy – What is Success? Sponsored by Alcon, Charlotte NC

2002 Optics, Haptics and Acrylics. Annual Canadian Master's Club meeting, sponsored by Alcon, Bal Harbour FL

2002 Glaucoma Therapy – What is Success? Cincinnati Eye Institute, Cincinnati OH

2002 Glaucoma Therapy – What is Success? Sponsored by Alcon, Youngstown OH

2002 Simplified peripheral iris fixation of an acrylic IOL in the absence of capsular support. Meeting of the Atlantic Master's Club, sponsored by Alcon, St. Andrew's NB, Canada

2002 Prostaglandins – A View from the Trenches. Sponsored by Alcon, Greenville SC

2003 Glaucoma Therapy – What is Success? Sponsored by Alcon, Englewood NJ

2003 Glaucoma Therapy – What is Success? Sponsored by Alcon, Dayton OH

2003 Glaucoma Therapy – What is Success? Sponsored by Alcon, Columbus OH

2003 Advances in Glaucoma Therapy. Wheeling WV

2003 Advances in Glaucoma Therapy. Holidaysburg PA

2003 Glaucoma Therapy – What is Success? Glaucoma Speaker Training Meeting sponsored by Alcon Labs. Phoenix AZ

2004 Blebitis: The New Challenge. Pittsburgh PA

2004 Advances in Glaucoma Therapy: A Forward and Backward View. New Orleans LA

2004 Non-penetrating Glaucoma Surgery. Annual meeting of the Virginia Society of Ophthalmology. Chantilly VA

2004 Bleb Revision for Late Complications. Annual meeting of the Virginia Society of Ophthalmology. Chantilly VA

2004 Surgical Management of Late Bleb Problems. Annual Walter Reed Alumni Meeting. Washington DC

Presentations:-cont'd

2004 Iris Fixation of Acrylic PC IOLs: Results and Complications. Annual Walter Reed Alumni Meeting. Washington DC

2005 Impact of Central Corneal Thickness on the Management of Primary Open Angle Glaucoma. Pittsburgh PA

2005 Challenges, Complications and Innovations in Cataract Surgery. Pittsburgh PA

2005 Advances in Glaucoma Therapy: A Forward and Backward View. Annual Meeting of the Pittsburgh Ophthalmology Society. Pittsburgh PA

2007 Challenging Cataract & IOL Cases – A Video Potpourri. Visiting Professor, William Beaumont Hospital, Royal Oak, MI

2007 Iris Sutured IOLS – Where Are They Now? Visiting Professor. William Beaumont Hospital, Royal Oak, MI

2007 "Acute Angle Closure – Better Surgical Therapy" CME Dinner. Pittsburgh PA June 28, 2007

2007 Phacoemulsification in Acute Angle Closure Glaucoma Resident Lecture Series. University of Pittsburgh Medical Center, Department of Ophthalmology

2009 Don't Ice the Trab. Bascom Palmer Eye Institute. University of Miami. Annual Glaucoma Meeting

2009 Angle Closure Glaucoma – A New Era of Effective Surgical Therapy. Clinical Day in Ophthalmology 2009, London Ontario

2009 IOL Malposition – Then, Now and the Future. Clinical Day in Ophthalmology 2009, London Ontario

2009 G.V.Simpson Lecture 2009. Clinical Day in Ophthalmology 2009, London Ontario

2009 Acute Angle Closure – Better Surgical Management. Bowlds Lecture Lahey Clinic, Boston MA

2009 Late IOL Dislocation – The Real Deal. Bowlds Lecture Lahey Clinic, Boston MA

Presentations:-cont'd

2009 Acute Angle Closure: Better Surgical Therapy. Utah Ophthalmology Society Dinner Meeting

2009 Late IOL Dislocation: the Future is Now. University of Utah Health Care Clinical Faculty Day

2009 Decision Making in Early POAG. Glaucoma Roundtable. Allergan, Pittsburgh PA

2010 Zonule Problems in Pseudoexfoliation, Glaucoma Challenges / Simmons Lecture. Guest Speaker. NEOS, Boston MA

2010 Is There Still a Role for Trabeculectomy? Simmons Lecture. Guest Speaker. NEOS, Boston MA

2010 Panel Discussion, Faculty. Glaucoma Challenges / Simmons Lecture. NEOS, Boston MA

2010 Glaucoma Management – Sponsored by Allergan, Pittsburgh PA

2010 Glaucoma Roundtable / Alcon. Atlanta GA

2010 Glaucoma CORE Program / Allergan. Carnegie House, State College PA

2010 ExPRESS Dinner Meeting / Alcon. Baltimore MD

2010 Speaker, Glaucoma CORE Program / Allergan. Norfolk VA

2011 Speaker / Alcon. Greenville SC

2011 Surgical Management of Glaucoma, Visiting Consultant / Allergan. Irvine CA

2011 Understanding the Approach to Complex Cases. Alcon Speaker's Forum. ASCRS-ASOA. San Diego CA

2011 Speaker, Lumigan 0.01% CORE Program / Allergan. Newport News VA

2011 Glaucoma Therapy, Allergan Dinner Program. Erie PA

2011 Glaucoma Management: A Novel Approach to Trabeculectomies / Alcon. Coral Gables FL

Presentations:-cont'd

2011 Toric Roundtable / Alcon. Pittsburgh PA

2011 Cincinnati Eye Institute Glaucoma Dinner ' Alcon. Cincinnati OH

2011 Lumigan 0.01% CORE Program / Allergan. Altoona PA

2011 Dinner Meeting / Speakers Alliance Alcon. New York City

2011 Toric Roundtable / Alcon. DuBois PA

2011 Discussion of ExPRESS Surgical Glaucoma Device and Advanced Technology IOLs . Alcon Speaker. Granger IN

2011 Glaucoma Surgery: Maximize Your Options with ExPRESS. Alcon Speaker. Charlotte NC

2012 ExPRESS Dinner Lecture. Alcon Speaker. Milwaukee WI

2012 Video Presentations: Complications and Challenging Cases, New Tricks and New Instrumentation: My Favorite Case of the Year. Faculty, ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Allergan Glaucoma Program Speaker. Kansas City MO

2012 Alcon ExPRESS Glaucoma Filtration Speaker. San Diego CA

2012 Roundtable Discussions – Premium IOL Use. American Glaucoma Society 2012 Annual Meeting. New York City NY

2012 Alcon ExPRESS Glaucoma Filtration Speaker. New York City NY

2012 Alcon Booth Talk. American Society of Cataract and Refractive Surgery. Chicago IL

2012 Speaker's Forum, Alcon Presenter. McCormick Place West, Eye World Theater. Chicago IL

2012 Glaucoma Surgery: Maximize Your Options with ExPRESS. Alcon Dinner Meeting. Chicago IL

Presentations:-cont'd

2012 Glaucoma Surgery: Maximize Your Options with ExPRESS. Alcon Atlanta GA

2012 Alcon ExPRESS Speaker. Washington DC

2012 Allergan Speaker. Johnstown PA

2012 Tools and Techniques With OVD's for Maximizing Outcomes. Speakers Forum AAO. Chicago IL

2013 Controversies in Medicine, Midwestern Conference. Los Angeles CA

2013 Predictable and Minimally Invasive Glaucoma Surgery Techniques, Alcon Speaker, Chicago Glaucoma Society Meeting. Chicago IL.

2013 FORGE III: Detecting and Managing Glaucoma Progression, CORE Speaker Program, Allergan. State College PA

2013 Express Dinner Meeting, Alcon. Chicago IL

2013 Trabeculectomy, Still Our Best Option? Alcon. Annapolis MD

2013 Predictable and Minimally Invasive Glaucoma Surgery Techniques. Alcon Speakers Alliance. Morgantown WV

2013 Express Dinner Meeting, Alcon. Scottsdale AZ

2013 Predictable and Minimally Invasive Glaucoma Surgery Techniques, Alcon Speakers Alliance Event. Valley View OH

2013 Pseudo ex: Something for Everyone. Pittsburgh Ophthalmology Society Quarterly Meeting. Pittsburgh PA

2014 "Challenging Cases in Anterior Segment Surgery." Video Case Presentation. Faculty. ASCRS ASOA Winter Update 2014. Farjardo Puerto Rico

2014 "Updating Your Glaucoma Treatment Armamentarium." Faculty. ASCRS ASOA Winter Update 2014. Farjardo Puerto Rico

2014 Pseudoexfoliation from Stem to Stem. 98th Annual Clinical Assembly of the AOCOO-HNS Foundation. Scottsdale AZ

Presentations:-cont'd

2014 Glaucoma Speaker Training. Alcon. Miami FL

2014 Trabeculectomy 2014 – Is There Still a Role? 98th Annual Clinical Assembly of the AOCOO-HNS Foundation. Scottsdale AZ

2014 Pseudoexfoliation from Stem to Stem. 98th Annual Clinical Assembly of the AOCOO-HNS Foundation. Scottsdale AZ

2015 "MIGS" 2015: Are We There Yet? Visiting Professor Grand Rounds. Ottawa Canada

2015 "Pseudoexfoliation: Something for Everyone." Key Note Speaker (Annual Ophthalmology and Optometry Dinner) Ottawa Canada

2017 "New Meds / MIGS Options: Can We Do Better." Featured Speaker. Georgia Society of Ophthalmology Annual Meeting. Amelia Island FL

2017 "Posterior Polar Cataract: Do's and Don'ts." Featured Speaker. Georgia Society of Ophthalmology Annual Meeting. Amelia Island FL

2017 "Surgical Triumphs and Tragedies: A Video Potpourri." Featured Speaker. Georgia Society of Ophthalmology Annual Meeting. Amelia Island FL

Research Grants:

1990 Glaucoma Software Development Program, Pennsylvania Lions Club/Allegheny Singer Research Institute, $90,000.

1996 Postoperative Complications Following Mitomycin-C Assisted Trabeculectomy: Mechanisms and Control by FGF-2, Allegheny Singer Research Institute, $10,000.

1996 Immunologic Reactivity to Human Optic Nerve Tissue of Serum From Patients with Low-Tension Glaucoma, Open-Angle Glaucoma and No Ocular Disease, Allegheny Singer Research Institute, $10,000

Clinical Trials Participation:

1989 Betaxalol vs Betaxalol-S, Clinical Investigator. Sponsored by Alcon Pharmaceuticals

1995 Latanoprost. Clinical Investigator, Phase III study site. Sponsored by Pharmacia-Upjohn

2003-2006 Bidirectional Glaucoma Shunt (Eyepass) Phase III Study – Principal Investigator-Sponsored by GMP/Vision Solutions Inc.

2005-Present iScience Schlemm's Canal Dilation / Imaging Phase III Study

2008 Trabeculectomy vs Express Shunt. Randomized Multi Center Clinical Trial

Fellows Trained:

1991 - 1992	Karen B. Lauer, M.D. 420 East North Avenue Suite 116 Pittsburgh, PA 15212
1992 – 1993	Richard A. Lehrer, M.D. Alliance Eye 285 Sawburg Alliance, OH 44601
1993 - 1994	Christopher G. Spanich, M.D. 13602 N 46th Street Tampa, FL 33613
1994 - 1995	Ghada Orkubi, M.D. P.O. Box 8447 Jeddah, Saudi Arabia 21482
1995 - 1996	Griffith Steiner, M.D. Physicians Medical Office Building 3340 Providence Drive, Suite 565 Anchorage, AK 99508

Fellows Trained:-cont'd

1996 - 1997	David A. DeRose, M.D. 118 West Lakeshore Drive Rockaway, NJ 07866
1997 - 1998	Bret C. Crumpton, M.D. W. Georgia Eye Care Center 2616 Warm Springs Road Columbus, Georgia 31904
1998 – 1999	Matthew Bilder, M.D. 1945 Queenswood Drive York, PA 17406
1999 – 2000	Rajiv Bindlish, M.D. 1939 Carscadden Chase Mississauga, Ontario L4W3R8
2003 – 2004	Rupal N. Chiniwalla, M.D. 104 Seavey Highlands Drive Pittsburgh, PA 15223
2007 – 2008	Michael Dorey, M.D. School House Apartments, Apt. 215 500 Tripoli Street Pittsburgh, PA 15212
2009 - 2010	Michael A. Alunni, M.D. 248 South St. Clair Street, Apt. 3 Pittsburgh, PA 15206
2011 - 2012	Tyler Q. Kirk, M.D. 7427 Lake Street River Forest, IL 60305
2014 - 2015	Michael J. Siegel, M.D. 411 Martell Drive Bloomfield Hills, MI 48304

Appendix B

List of Materials Considered

Exhibit Number	Description
1001	U.S. Patent No. 9,358,155
1002	U.S. Patent No. 9,358,155 Prosecution History
1003	The Netland Declaration
1004	Manuel Quintana, *Gonioscopic Trabeculotomy. First Results*, in 43 SECOND EUROPEAN GLAUCOMA SYMPOSIUM, DOCUMENTA OPHTHALMOLOGICA PROCEEDINGS SERIES 265 (E.L. Greve, W. Leydhecker, & C. Raitta ed., 1985)
1005	M. Johnstone *et al.*, "Microsurgery of Schlemm's Canal and the Human Aqueous Outflow System," *Am. J. Ophthalmology* 76(6):906-917 (1973)
1006	U.S. Patent No. 4,900,300 to Lee
1007	Philipp C. Jacobi *et al.*, "Technique of goniocurettage: a potential treatment for advance chronic open angle glaucoma," 81 *British J. Ophthalmology* 302-07 (1997)
1008	Richard S. Snell *et al.*, *Clinical Anatomy of the Eye*, Malden, Massachusetts: Blackwell Science, Inc. (2nd ed., 1998)
1009	Am. Acad. Of Ophthalmology, *Section 8 External Disease and Cornea*, in BASIC AND CLINICAL SCIENCE COURSE 2001-2002 (2001)
1010	Michael John Hogan, *History of the Human Eye: An Atlas and Textbook.* Philadelphia, Pennsylvania: W. B. Saunders Company (1971)
1011	M. Bruce Shields, *Textbook of Glaucoma, Fourth Edition.* Baltimore, Maryland: Williams & Wilkins (1998)
1012	Am. Acad. Of Ophthalmology, *Section 10 Glaucoma*, in BASIC AND CLINICAL SCIENCE COURSE 2000-2001 (2000)
1013	Philipp C. Jacobi *et al.*, "Perspectives in trabecular surgery," Eye 2000;14(Pt 3B)(3b):519-30 (2000)
1014	F. Skjaerpe, "Selective Trabeculectomy. A Report of a New Surgical Method for Open Angle Glaucoma," *Acta Ophthalmologica* 61:714-727 (1983)
1015	U.S. Patent Application Publication 2002/0111608 to Baerveldt
1016	U.S. Patent 4,501,274 to Skjaerpe
1018	E. Ferrari *et al.*, "Ab-interno trabeculo-canalectomy: surgical approach and histological examination," *European J. Ophthalmology* 12(5):401-05 (2002)

1019	U.S. Patent App. 13/159,356 File History
1020	T. Shute, "A Novel Technique for Ab Interno Trabeculectomy: Description of Procedure and Preliminary Results," *Am. Glaucoma Society 29th Annual Meeting Poster Abstracts* 34-35 (2019), https://ags.planion.com/Web.User/AbstractDet?ACCOUNT=AGS&CONF=AM19&ABSID=12309)
1021	Arsham Sheybani, *Bent Ab-interno Needle Goniectomy (BANG)*, YouTube (Aug. 24, 2017), https://youtu.be/b5QxWts-Pxs
1022	U.S. Patent 9,107,729 File History
1023	U.S. Patent Application Publication No. 2003/0014042 to Juhasz
1024	U.S. Patent 5,876,415 to Pierce
2020	Sworn Affidavit of Manuel Quintana, M.D.
2023	DORLAND'S MEDICAL DICTIONARY SHORTER EDITION abridged from 25th ed. (1980) excerpt at 605 (definition of "section")
2024	BLACKS MEDICAL DICTIONARY 47th ed. (1992) excerpt at 519 (definition of "section")
2025	DORLAND'S POCKET MEDICAL DICTIONARY SHORTER EDITION abridged from 28th ed. (2009) excerpt at 113 (definition of "blunt")

EXHIBIT 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEW WORLD MEDICAL, INC.,
Petitioner,

v.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA,
Patent Owner.

Case IPR2021-00066

U.S. Patent No. 9,999,544

Filed: June 15, 2021

DECLARATION OF GARRY P. CONDON, M.D. IN SUPPORT OF PATENT OWNER RESPONSE

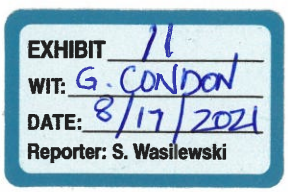


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EXHIBIT LIST

Exhibit	Description
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2023	DORLAND'S MEDICAL DICTIONARY SHORTER EDITION abridged from 25th ed. (1980) excerpt at 605 (definition of "section")
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I, Garry P. Condon, M.D., hereby declare as follows:

I. INTRODUCTION

1. I have been retained by Wiley Rein LLP as an expert witness on behalf of The Regents of the University of California ("Regents" or "Patent Owner") in support of Patent Owner's Response in this Inter Partes Review ("IPR") of U.S. Patent No. 9,999,544 (Ex. 1001) ("the '544 Patent"). I am being compensated for my time in connection with this IPR at a consulting rate of $575 (USD) per hour. My compensation is in no way dependent on the outcome of this matter.

II. QUALIFICATIONS

2. Attached to this Declaration as Appendix A is my curriculum vitae, which provides a more detailed description of my education, training, and experience in the relevant technology.

III. MATERIALS CONSIDERED

3. I provide opinions in this declaration based on my education, training, background, and experience, as well as the documents I have reviewed to date, including the '544 Patent and the Petition (including the following documents: Declaration of Dr. Peter Netland (Ex. 1003) ("the Netland Declaration"); Manuel Quintana, *Gonioscopic Trabeculotomy. First Results*, in 43 SECOND EUROPEAN GLAUCOMA SYMPOSIUM, DOCUMENTA OPHTHALMOLOGICA PROCEEDINGS SERIES

265 (E.L. Greve, W. Leydhecker, & C. Raitta ed., 1985) (Ex. 1004) ("Quintana"); M. Johnstone *et al.*, "Microsurgery of Schlemm's Canal and the Human Aqueous Outflow System," *Am. J. Ophthalmology* 76(6):906-17 (1973) (Ex. 1005) ("Johnstone"); U.S. Patent No. 4,900,300 (Ex. 1006) ("Lee"); Philipp C. Jacobi *et al.*, "Technique of goniocurettage: a potential treatment for advance chronic open angle glaucoma," 81 *British J. Ophthalmology* 302-07 (1997) (Ex. 1007) ("Jacobi"); Philipp C. Jacobi *et al.*, "Perspectives in trabecular surgery," Eye 2000;14(Pt 3B)(3b):519-30 (2000) (Ex. 1013) ("Jacobi 2000"); "Electrocautery Puncture of the Trabecular Meshwork in Enucleated Human Eyes," *Am. J. of Ophthalmology* 72(6): 1094-96 (1971) (Ex. 1023) ("Moses"); and Sworn Affidavit of Manuel Quintana, M.D. (Ex. 2020)). Those documents, and the other materials cited in this declaration, are listed in Appendix B. I have either read the materials listed in Appendix B or reviewed summarized data provided by counsel.

IV. LEGAL STANDARDS

4. I am not a lawyer, nor do I have any legal training. In preparing this declaration, I have relied upon the explanation by Patent Owner's counsel of certain patent law concepts, including the legal standard for interpreting claims, as well as those for assessing written description, definiteness, enablement, entitlement of priority, anticipation, and obviousness.

A. Written Description

5. I have been informed by counsel that a claim in a granted patent must be sufficiently supported by the disclosure in the patent's specification, read in the context of what a person of ordinary skill in the art would have known at the time of the claimed invention. I understand that the basic inquiry for written description is whether the specification provides sufficient information for the person or ordinary skill to recognize that the named inventors possessed the full scope of the claimed invention.

B. Definiteness

6. I have been informed by counsel that, in addition to written description, a patent specification must also describe the claimed invention so as to inform a person of ordinary skill in the art of the scope of the claimed invention with reasonable certainty. A claim may also be indefinite when it contains words or phrases whose meaning is unclear. Conflicting information between the patent claims and the rest of the patent application, including the figures, may affect that certainty and/or clarity.

C. Enablement

7. I have been informed by counsel that, in addition to written description, a patent specification must also enable a person of ordinary skill in the

art to make and use the full scope of the claimed invention without undue experimentation as of its effective filing date. I understand that multiple factors should be considered when making this determination. These factors include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

D. Priority

8. I have been informed by counsel that, for the claims of an application to be entitled to an earlier application's filing date, the earlier application must provide written description and enablement of the claims, as of the earlier application's filing date. I have been informed by counsel that the undisputed and applicable priority date in this IPR is January 18, 2001.

E. Anticipation and Obviousness

9. I have been informed by counsel that a claim is anticipated when a single prior art reference discloses, either expressly or inherently, each and every claim element arranged in the order specified by the claim. I also understand that whether a document qualifies as prior art against a claim depends on the effective filing date to which the claim is entitled. I have been informed that even if a claim

is not anticipated, it may be invalid for obviousness where a person having ordinary skill in the relevant art at the time the alleged invention was made would have considered the claimed invention as a whole to have been obvious given the prior art. I understand that a claim may be obvious in light of one or more prior art references.

F. Claim Construction

10. I have been informed by counsel that the Patent Trial and Appeal Board ("PTAB") applies the same claim construction standard used in district courts, where the claims are given their ordinary meaning as understood by one skilled in the art at the time of the invention, informed by the claim language itself, the specification, and the prosecution history. I also understand that "extrinsic evidence"—*i.e.*, evidence other than the patent and prosecution history, such as dictionaries and treatises—can be relevant in determining how a skilled artisan would understand terms of art used in the claims. I have been informed, however, that extrinsic evidence may not be used to contradict the meaning of the claims as described in the intrinsic evidence—*i.e.*, evidence in the claim language itself, the specification, and the prosecution history.

11. I have been informed by counsel that the PTAB, at least as of its March 24, 2021 institution of this IPR, has declined to expressly adopt any

proposed construction of the claim language set forth in the Petition, but instead, assigned the claim language its ordinary meaning as it would have been understood by a person of ordinary skill in the art ("POSA"). Accordingly, in making the findings and reaching the conclusions in this declaration, I too have applied the ordinary meanings of the claim terms as they would have been understood by a POSA. To the extent that the PTAB adopts specific claim constructions regarding the '544 Patent claims, I reserve the right to amend my findings and conclusions accordingly.

G. Person of Ordinary Skill of the Art

12. In my opinion, a POSA as of the date of invention would have been at least (1) a medical degree and at least two years' experience with treating glaucoma and performing glaucoma surgery; or (2) an undergraduate or graduate degree in biomedical or mechanical engineering and at least five years of work experience in the area of ophthalmology, including familiarity with ophthalmic anatomy and glaucoma surgery. For purposes of my Declaration, I do not disagree with the characterization of a POSA proposed by Petitioner. *See* Ex. 1003 ¶24.

V. SUMMARY OF MY OPINIONS

13. In my opinion, a POSA would have understood that neither Quintana nor Jacobi discloses each and every element of the '544 Patent claims, at least because neither Quintana nor Jacobi mentions or suggests a foot member with (1) a platform set at an angle relative to the longitudinal axis of the probe shaft or (2) an upper side that slopes upwardly from the tip toward the probe shaft.

14. I find numerous statements in the Netland Declaration, Ex. 1003, about the prior art identified in the Petition to be erroneous, and I find many of Dr. Netland's conclusions to be based solely on his own speculation, conjecture, and hindsight. I address each of these erroneous statements and unfounded conclusions below.

15. In my opinion, not only would a POSA have found Quintana and Jacobi lacking with respect to elements of the '544 Patent claims, but a POSA would not have applied the general knowledge in the art to make up for their respective shortfalls in this regard. Therefore, I conclude that a POSA would not have found that any of the prior art identified in the Petition, alone or in combination, anticipated and/or rendered obvious the '544 Patent claims according to the applicable legal standards as I understand them.

16. For purposes of this declaration, I do not disagree with the background of the technology as set forth generally in Sections VII.A.-VII.D.2. of the Netland Declaration. *See* Ex. 1003 ¶¶32-53.

VI. DETAILS OF MY OPINIONS

A. Prior Art

17. I have been asked to review the '544 Patent (Ex. 1001) and its prosecution history (Ex. 1002), the Netland Declaration (Ex. 1003), the prior art identified in the Petition (including Exs. 1004-1007, 1013, 1023), and the Sworn Affidavit of Manuel Quintana, M.D. (Ex. 2020). Among other things, I have been asked to provide my opinion about what a POSA would have known from the prior art available on or before the priority date of January 18, 2001, including the general knowledge in the art; to comment on my agreement or disagreement with various statements in the Netland Declaration; and to compare the prior art to the '544 Patent claims according to the applicable legal standards as I understand them.

i. Quintana

18. I have reviewed the publication known as Quintana (Ex. 1004). Quintana is a 7-page journal article containing one of each of a drawing (labeled as Figure 1), a photograph (labeled as Figure 2), a table (labeled as Table 1), and a

graph (labeled as Figure 3). Quintana states that it was published in 1985. Ex. 1004 at 3.

19. In my opinion, the most natural reading of Quintana to a POSA would have been the reporting of a new way to move the TM in a patient's eye away from the lumen of Schlemm's Canal by following a tangential approach to the TM with a standard hypodermic needle, the tip of which is bent and angled toward the anterior chamber of the eye, so as to avoid injuring the external wall of Schlemm's Canal. A POSA would have understood that a key concern of Quintana was minimizing the risk of damaging the external wall of Schlemm's Canal during this procedure. A POSA would have recognized that Quintana did not describe a method or device for removing TM for any reason, including tissue biopsy or patient diagnosis or therapy.

20. Quintana teaches a POSA how to make a trabeculotome by bending the tip of a standard hypodermic needle ("a 0.4 x 15 mm needle, or an insuline-type needle; we bend the tip 20-30° with a needle-holder; a factory-made needle (Morie, France) is even better."). *Id.* Quintana does not specify exactly what is meant by the needle tip, or where at the needle tip, or along what axis of the needle shaft, the bend is made.

21. Quintana teaches a POSA that the working end of its trabeculotome is the "tip of the needle." In this regard, Quintana reads:

> "The TM is incised with the tip of the needle. From now on, and with the concavity of the tip *towards* the surgeon, the trabeculotome is progressively introduced in the angle. Only the tip of the instrument is introduced into Schlemm's canal, and the TM is stripped slowly, gently and easily from the canal's lumen towards the anterior chamber as the needle progresses in the angle (Fig. 2). Since the convexity of the tip is facing the external wall of the canal, this structure is not damaged. This is why we bend the tip and we point it towards the anterior chamber."

Ex. 1004 at 4 (emphasis in original).

In its Figure 2 legend, Quintana also reads: "Goniophotography at operation. The tip of the needle stripping the trabecular meshwork." *Id.* at 5.

22. In my opinion, a POSA would have understood the Quintana trabeculotome, other than its needle tip bend, to be the same as an unbent standard hypodermic needle, the tip of which has a single bevel with a sharp point and sides. A POSA would have understood that the intended use of a standard hypodermic needle is to penetrate tissue through an incision created by the sharp point at the

distal end of the single beveled tip. The drawing labeled as Quintana Figure 1 shows a needle tip consistent with this understanding. *Id.* at 4.

23. In my opinion, a POSA would not have found anything in Quintana to indicate or suggest that any portion of the Quintana trabeculotome tip as depicted in Figure 1, including the single bevel or the inner lumen of the needle tip, represents the foot member as described in the '544 Patent. I agree with Dr. Netland to the extent he reads Quintana to disclose that the convexity of the Quintana trabeculotome tip is due to the bend and is intended during the tangential approach of the described procedure to face the external wall of Schlemm's Canal to avoid damaging the structure. *Id.* I also note that Dr. Netland does not state that anything in the Quintana trabeculotome other than the convexity of the tip may serve this specific function. I disagree, however, that this means that the Quintana trabeculotome tip must be the foot member as described in the '544 Patent. *See* Ex. 1003 ¶111. Because Quintana does not specify exactly what is meant by the needle tip, or where at the needle tip, or along what axis of the needle shaft, the bend is made, in my opinion, a POSA would be uncertain where the convexity of the tip in the Quintana trabeculotome is located, much less know whether or not it is located where Dr. Netland suggests it must be.

24. In addition, as a technical matter, I do not read the '544 Patent to support Dr. Netland's assertion that the foot member may be simply anything at the distal end of the device's shaft that functions to penetrate the TM, serves as a guide in Schlemm's Canal, and protects the collector channels of Schlemm's Canal. *See* Ex. 1003 ¶109. What is clear, however, is that the intended purpose of Quintana's convexity of the tip (to avoid damaging the external wall of Schlemm's Canal), Ex. 1004 at 4, is not coextensive with that of the '544 Patent's foot member (to penetrate the TM and serve as a guide in Schlemm's Canal as well as to protect the collector channels of Schlemm's Canal), Ex. 1001 at 46 (9:25-27). In my opinion, a POSA would understand that even if Quintana's convexity of the tip and the '544 Patent's foot member may share one of several similar functions, that does not mean that the structures are the same.

25. For the same reasons as stated in Paragraphs 23-24 above, I dispute Dr. Netland's assertion that the sides and/or inner lumen of the Quintana trabeculotome tip represent the upper side of the platform described in the '544 Patent. *See* Ex. 1003 ¶112. Dr. Netland points to nothing in Quintana that supports his re-drawing of Quintana Figure 1 to depict elements of a platform (including a tip, an upper side, and a lower side) that Quintana never mentions or suggests. *See id.* Much less is there any indication in Quintana that any purported

platform is set at an angle relative to the longitudinal axis of the Quintana trabeculotome shaft.

26. Dr. Netland's re-drawing of Figure 1 of Quintana to depict a foot member and platform cannot be reconciled with Quintana or the '544 Patent. For example, if the inner lumen of the Quintana trabeculotome tip must be the "platform" or "upper side" of the foot member of the '544 Patent as Petitioner depicts, *see* Ex. 1003 ¶112, then the single bevel of the Quintana trabeculotome tip is not part of the "platform" or "upper side," and thus, the "platform" is not set at an angle relative to the longitudinal axis of the probe shaft, and the "upper side" does not slope upwardly from the tip toward the probe shaft. Conversely, if the single bevel of the Quintana trabeculotome tip must be considered part of "platform" or "upper side" of the foot member of the '544 Patent, as Petitioner depicts, *see id.*, then the Quintana device in this hypothetical configuration lacks the separate "tip" element described in the '544 Patent. In my opinion, a POSA would not have viewed the Quintana trabeculotome as including a foot member with a platform having a tip, an upper side, a lower side and being set at an angle relative to the longitudinal axis of the probe shaft. Also, in my opinion, a POSA would not have viewed the Quintana trabeculotome as including a foot member with a platform where the upper side slopes upwardly from the tip toward the shaft.

A POSA reading the '544 Patent specification, including the figures, would have understood that the upward slope is oriented at an angle with respect to the longitudinal axis of the device (*see, e.g.*, Figs. 18-23). I disagree with Dr. Netland that the curvature of the inner lumen of the Quintana trabeculotome tip (towards the beveled sides), as with a standard hypodermic needle tip, equates to the upward slope of the upper side of the platform of the foot member as described in the '544 Patent.

27. In my opinion, a POSA would not have found anything in Quintana to indicate or suggest that the beveled sides of the needle tip as depicted in Figure 1 are sharp and intended to cut tissue. In particular, nothing supports Dr. Netland's characterization of the Quintana trabeculotome tip as having cutting edges or knife blades. *See* Ex. 1003 ¶107.

28. The Netland Declaration re-drawing of Quintana Figure 1 to depict the beveled sides of the Quintana trabeculotome tip as cutting edges has no basis in Quintana. *See id.* A POSA reading Quintana would not have seen any reference to the beveled sides of the Quintana trabeculotome tip as sharp or any definition of what sharpness might mean in that context. In my opinion, Dr. Netland's assertion that Quintana Figure 1 shows cutting edges or knife blades is wrong and is based solely on his own speculation, conjecture and hindsight.

29. In my opinion, nothing in the '544 Patent supports viewing the Quintana trabeculotome as having two distinct cutting edges or a plurality of knife blades. If the beveled sides of the Quintana trabeculotome tip were deemed to be "sharp and intended to cut tissue," which they are not, then the entire surface of the single bevel (including the sharp point) must also be deemed a ***single*** cutting edge, which cannot be a plurality of knife blades. This further militates against Dr. Netland's characterization of the beveled sides of the Quintana trabeculotome tip to be two cutting edges or knife blades.

30. Quintana never describes its trabeculotome as a device having cutting edges or knife blades, much less as a device having two cutting edges or a plurality of knife blades. The assertions in the Netland Declaration to the contrary are inconsistent with the plain statements in Quintana, the most natural reading of which to a POSA, in my opinion, would have been simply disclosing a way to move the TM in a patient's eye away from the lumen of Schlemm's Canal by following a tangential approach to the TM using a standard hypodermic needle, the tip of which is bent and angled toward the anterior chamber of the eye, so as to avoid injuring the external wall of Schlemm's Canal. A POSA would not have understood Quintana to disclose a device having two cutting edges or a plurality of knife blades that cut the TM to create a strip of TM.

31. Quintana never describes its procedure as involving cutting the TM with two cutting edges or a plurality of knife blades to create a strip of TM of defined width equal to the distance between the cutting edges or knife blades. Nor does Quintana even suggest that its trabeculotome would be capable of being used in any way to create such a strip of TM. In addition, there is nothing in Quintana, Lee, Jacobi, Moses or any of the other prior art cited in the Petition that would have motivated a POSA to modify the Quintana trabeculotome to try to remove TM, much less a strip of TM, by cauterization, laser ablation, sonic or ultrasonic emulsification, or mechanical cutting, or the irrigation and aspiration of TM debris. Furthermore, a POSA would have been advised against modifying the Quintana trabeculotome for fear that using any such altered device to perform Quintana's procedure might reduce the effectiveness of the Quintana trabeculotome, including its ability to move along the lumen of Schlemm's Canal in a tangential approach, and/or heighten the risk of undesirable injury to the external wall of Schlemm's Canal.

32. The Netland Declaration seizes on the words "section" and "stripping" used in Quintana in an attempt to rationalize that TM must have been removed even though Quintana never actually says so. *See, e.g.*, Ex. 1003 ¶¶106,

142. I disagree that a POSA would have understood Quintana to refer in any way to the removal of TM.

33. In its Abstract, Quintana describes "a surgical method of goniotrabeculotomy which achieves a *section* of the trabecular meshwork without damage to the external wall of Schlemm's canal." Ex. 1004 at 3 (emphasis added). In my opinion, a POSA would have understood Quintana's reference to "section" in this sentence to mean incising or opening the TM, as opposed to creating or removing a strip of TM.

34. Medical dictionaries around the time of Quintana typically referred to alternative meanings for "section." *See, e.g.*, Ex. 2023 at 605 (defining "section" to mean "1. an act of cutting. 2. a cut surface. 3. a segment or subdivision of an organ."); Ex. 2024 at 519 ("(1) A thin slice of a tissue specimen taken for examination under a microscope. (2) The act of cutting in surgery; for example, an abdominal section is done to explore the abdomen."). Although listed as an alternative definition in these dictionaries, the meaning of "section" as "cutting" is most consistent with other statements in Quintana.

35. Quintana only ever refers to "incising" or "opening" the TM. Ex. 1004 at 3 ("Thus, the rational treatment of the trabecular glaucomas should

consist in ***opening*** the trabecular meshwork (TM).") (emphasis added); *id.* at 4 ("The TM is ***incised*** with the tip of the needle.") (emphasis added).

36. Quintana never mentions creating or removing a strip of TM, much less the study of any TM samples by microscopic examination. In addition, the last sentence in Quintana reads: "Further studies are necessary to disclose the 'in vivo' behaviour of the sectioned trabecular meshwork." I note that Dr. Netland does not explain why or how an "in vivo" observation would be relevant if "strips of tissue" from the TM must have been removed in the Quintana procedure, as he asserts. *See* Ex. 1003 ¶¶92-93. In my opinion, if that were true, a POSA would have expected Quintana's reference to an *in vitro*, not *in vivo*, study – for example, to examine a removed TM "section" under a microscope. Because Quintana instead refers specifically to the study of the *in vivo* behaviour, the most natural read to a POSA would have been to interpret "sectioned trabecular meshwork" to refer merely to TM that had been incised or opened, not TM from which a strip(s) of tissue had been created or removed.

37. Dr. Netland ignores the exclusive and consistent use in Quintana of the terms "goniotrabeculotomy," "trabeculotomy," and "goniotomy," referring to incising, cutting, sectioning, opening, or stripping tissue – all fundamentally different procedures than excising or removing tissue that a POSA would equate

instead with "goniotrabeculectomy," "trabeculectomy," and "goniectomy," which are familiar terms of art Quintana apparently chose not to use to describe its procedure. Without any support, Dr. Netland offers only a conclusory statement that "[i]t is my expert opinion that despite using different terminology for the procedure, Quintana discloses a goniectomy procedure for excising and removing trabecular meshwork tissue from the eye." Ex. 1003 ¶57. In my opinion, Dr. Netland disregards what Quintana actually says and is substituting his own words, and therefore, I disagree with his unsupported statement.

38. Dr. Netland refers to bent *ab interno* needle goniectomy ("BANG") procedures purportedly published almost 18 years after the priority date of the '544 Patent. *See id.* ¶¶93-95. I have been informed by counsel that the PTAB may ultimately deem this information irrelevant and/or inadmissible. But to me, this shows Dr. Netland's own admission that a POSA describing the removal of TM would have used the terms "excise" or "excising" (as did the authors of the BANG videos), rather than "section" or "stripping." *See id.*

39. Quintana describes a procedure where "[o]nly the tip of the instrument is introduced into Schlemm's canal, and the TM is ***stripped*** slowly, gently and easily ***from the canal's lumen*** towards the anterior chamber as the needle progresses in the angle (Fig. 2)." Quintana's Figure 2 legend additionally reads:

"Goniophotography at operation. The tip of the needle ***stripping*** the trabecular meshwork." In my opinion, a POSA would have understood Quintana's reference to "stripped" and "stripping" in these sentences to mean simply cutting or tearing the TM to move it away from the lumen of Schlemm's Canal while avoiding injuring the external wall of Schlemm's Canal, which was Quintana's key concern, *see* Ex. 1004 at 4 ("This is why we bend the tip and we point it towards the anterior chamber."), and not to mean creating and/or removing segments or strips of TM, as Dr. Netland asserts, *see*, *e.g.*, Ex. 1003 ¶111.

40. The demonstrative diagrams shown at Paragraph 90 or the purported cartoon rendering of Quintana's Figure 2 photograph shown at Paragraph 91 of the Netland Declaration do not change the fact that Quintana never mentions or suggests creating or removing a strip of TM. In my opinion, Dr. Netland's conclusions are wrong and are based solely on his own speculation, conjecture and hindsight.

41. While my conclusion that Quintana does not describe creating or removing a strip of TM is based on my own perspective of what a POSA would have understood from a plain reading of Quintana, I note additionally that the author, Dr. Manuel Quintana, has confirmed that neither his work, nor his article reporting that work, ever involved the removal of TM for any reason. *See* Ex. 2020

¶¶3-7. Moreover, Dr. Quintana's sworn statements directly and completely refute Dr. Netland's assertions about Quintana in this regard. To me, Dr. Quintana's explanation increases my confidence that Quintana does not describe the removal of TM.

42. Although it is my opinion that a POSA would have understood Quintana not to disclose a device having a foot member with (1) a platform set at an angle relative to the longitudinal axis of the probe shaft or (2) an upper side that slopes upwardly from the tip toward the probe shaft, I will address below several additional points of disagreement with the Netland Declaration.

43. Dr. Netland states that that "[t]he term 'ab interno' [] and the related term 'ab externo' had common, well-understood meanings to persons of ordinary skill in the art at the time of filing of the '544 patent. Persons of ordinary skill in the art would have understood the term 'ab interno' to generally mean ***from the inside*** and would have understood the term 'ab externo' to generally mean ***from the outside***." Ex. 1003 ¶79 (emphasis in original). I agree with these statements.

44. However, Dr. Netland goes beyond the common meanings to propose a definition of an *ab interno* procedure to mean "entering the eye through the anterior chamber and approaching the trabecular meshwork from within the anterior chamber." *Id.* ¶81. I understand that the PTAB has declined to adopt Dr.

Netland's particularized definition of *ab interno* in favor of its ordinary and customary meaning. Paper 10 at 20-21. The Netland Declaration, however, appears to base its conclusion that Quintana discloses an *ab interno* procedure based solely on Dr. Netland's particularized definition that the PTAB declined to adopt. Ex. 1003 ¶¶122-127.

45. In my opinion, a POSA would not have known definitively whether or not Quintana described an *ab interno* procedure. Quintana never states that its method is *ab interno*. Because nothing in the Quintana text or figures provides a clear indication whether or not the Quintana trabeculotome enters the TM only after first entering Schlemm's Canal, a POSA would be unable to conclude with certainty that Quintana's surgical procedure must be *ab interno*.

46. While my conclusion that Quintana does not conclusively show an *ab interno* procedure is based on my own perspective of what a POSA would have understood from a plain reading of Quintana, I note additionally that the author, Dr. Manuel Quintana, has stated that his article describes "a surgical approach where the needle tip enters and follows Schlemm's Canal before tearing the TM." Ex. 2020 ¶6. To the extent this was the case, such a procedure would not have been *ab interno* by definition.

47. I, therefore, disagree with Dr. Netland's statement in his declaration that "[t]he ***only way*** to interpret Quintana's description is that the procedure is an 'ab interno' method. Persons of ordinary skill in the art ***could not*** interpret Quintana's procedure as an 'ab externo' method." *See* Ex. 1003 ¶126 (emphasis in original). Dr. Netland has created a false dichotomy where Quintana must teach either an *ab interno* or an *ab externo* procedure, despite his own recognition that Quintana is silent or less than clear about whether the described procedure is *ab interno* or *ab externo*. *See id.* ¶127 ("Quintana discloses inserting the needle 'through the scleral side of the limbus' [and] in no case does Quintana describe making an incision on the exterior of the eye to access Schlemm's Canal as would be required in an 'ab externo' procedure."). Dr. Netland strains to conclude that Quintana's method must be *ab interno* based solely on his own particularized definition of that term, which the PTAB expressly declined to adopt.

48. That a POSA would have understood a method to be either *ab interno* or *ab externo* is a different matter than whether a POSA would have known with reasonable certainty from reading an article which of these types of procedure is described. In my opinion, Quintana teaches neither because a POSA is without sufficient information to tell for sure whether Quintana's procedure is *ab interno* or

ab externo. Dr. Netland's conclusion that Quintana's procedure must be *ab interno* is wrong and is based solely on his own speculation, conjecture and hindsight.

ii. Lee

49. I have reviewed the publication known as Lee (Ex. 1006).

50. I have read the PTAB's discussion of Lee at Section 1.H. of the March 24, 2021 Institution Decision in this IPR. Paper 10 at 13-15.

51. I have read the prosecution history of U.S. Patent No. 9,107,729 ("the '729 Patent), IPR2020-01573 Ex. 1002. In particular, I am aware that in the patent examiner's statement of reasons for allowance, the patent examiner stated the following about Lee:

> "The closest prior art includes Lee USP 4,900,300 which teaches a method of excising a piece of tissue from the anterior chamber angle (trabecular meshwork and the inner wall of Schlemm's Canal) utilizing a device with a U-shaped cutting edge (14) which has dual blades corresponding to the U-shape. However, Lee fails to teach a device comprising a shaft and a distal protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of at least 30 degrees. It would not have been obvious to one having ordinary skill in the art at the time the invention was made to modify

the method of Lee to include using a device with a shaft and a distal protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of at least 30 degrees."

IPR2020-01573 Ex. 1002 at 320-321.

I agree with the patent examiner that Lee does not teach a device comprising a shaft and a distal protruding tip that extends from a distal end of the shaft to form *a bend or curve having an angle of at least 30 degrees*. Based on my understanding of the applicable patent law standards, I also agree with the patent examiner that it would not have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Lee to include using a device with a shaft and a distal protruding tip that extends from a distal end of the shaft to form a bend or curve having an angle of at least 30 degrees.

52. I disagree, however, with the patent examiner's statement that Lee teaches a method of excising a piece of tissue from the anterior chamber angle (trabecular meshwork and the inner wall of Schlemm's Canal) utilizing a device with a U-shaped cutting edge (14) which has ***dual blades*** corresponding to the U-shape. I disagree with the patent examiner to the extent her statement was characterizing the Lee device as a dual blade device. Lee itself clearly reads otherwise.

53. First, Lee reads unambiguously:

> "The forward end of shaft 10 comprises a parabolic, bowl-like cavity 12 having a sharpened rim which creates a ***single, more or less U-shaped cutting edge*** 14 integral with the sides of shaft 10. The cutting edge is approximately 2.0 mm. in length and about 0.3 to 0.4 mm. in width. The distal end 15 of cutting edge 14 protrudes a distance of about 0.5 to 1.0 mm. for ease of tissue penetration and cutting. The cutting edge is softly rounded at its distal end and is generally parabolic in shape in order to avoid damage to the outer wall of Schlemm's Canal."

Ex. 1006 at 4 (4:38-48) (emphasis added).

Second, Lee is consistent in describing its cutting blade as a singular element. *See, e.g.*, Ex. 1006 at 1 (Abstract) ("The surgical instrument of this invention comprises in combination; a hollow tapered shaft having ***a*** cutting edge at one end as an integral part thereof; a retractable stylet contained within the hollow interior of the tapered shaft; and an irrigation port running along the outside of the tapered shaft.") (emphasis added); *id.* at 5 (6:28-30) ("***The*** cutting edge 14 is used to excise the angle tissue 40 for approximately one-third of the angle circumference.") (emphasis added).

54. In my opinion, a POSA would have understood Lee to disclose a device having a ***single*** cutting blade. Although this U-shaped cutting blade is shown to have a sharpened rim with side edges and a distal tip, Lee never describes or depicts its cutting blade as anything other than an unitary element, which differs from the "plurality of knife blades" of the device described in the '544 Patent.

55. I similarly disagree with Dr. Netland's statement asserting that Lee disclosed a dual blade device. *See* Ex. 1003 ¶54.

56. Because the Lee device comprises "a parabolic, bowl like cavity 12 having a sharpened rim which creates a ***single***, more or less U-shaped cutting edge 14 integral with the sides of shaft 10," in my opinion, a POSA would have understood that trying to remove TM using the Lee device would not have necessarily created a strip of tissue of ***defined width*** due solely to the cutting of the TM by the side edges of the single, U-shaped cutting blade. Therefore, neither Quintana or Lee alone, or in combination with each other, would have taught or motivated a POSA to make a device for removing TM with any reasonable expectation of success, according to the applicable legal standards as I understand them.

iii. Jacobi and Jacobi 2000

57. I have reviewed the publications known as Jacobi (Ex. 1007) and Jacobi 2000 (Ex. 1013).

58. I have read the PTAB's discussion of Jacobi at Section 1.H. of the March 24, 2021 Institution Decision in this IPR. Paper 10 at 11-13. I agree generally with the PTAB's statements about Jacobi.

59. I have read the prosecution history of the '544 Patent (Ex. 1002). In particular, I am aware that Jacobi was known to the patent examiner through at least the identification of Jacobi in a July 24, 2015 Information Disclosure Statement. Ex. 1002 at 160. Jacobi 2000 appears to be a review article that addresses information similar to that disclosed in Jacobi with different figures.

60. I disagree with Dr. Netland's repeated statements asserting that Jacobi disclosed a device having cutting edges or knife blades, much less two cutting edges or a plurality of knife blades. *See, e.g.*, Ex. 1003 ¶103. Jacobi never mentions or suggests a device designed to cut the TM, much less a device having cutting edges or knife blades.

61. First, Jacobi reads:

"The present study was carried out to introduce a new approach in glaucoma surgery aiming to ***scrape*** pathologically altered trabecular

> meshwork off the scleral sulcus in six patients suffering from uncontrolled IOP due to glaucoma absolutum. The aim of the surgical procedure was to ***abrade rather than incise*** uveal meshwork; this novel method, therefore, is termed goniocurettage."

Ex. 1007 at 2 (emphasis added).

In my opinion, a POSA would have understood Jacobi to promote a method using a device to scrape or abrade the TM instead of cutting defined strips of TM. Indeed, this reading most naturally aligns with Jacobi's further description that "[i]n order to ***peel off*** trabecular meshwork the 'scraper' was lightly passed over 2-3 clock hours to either side at the nasal circumference of the anterior chamber angle in sweeping movements (Fig 2). . . . Gonioscopically, ***strings*** of trabecular tissue could be observed intraoperatively to be removed by goniocurettage, leaving a 'denuded' grey-white scleral sulcus." *Id.* (emphasis added). Jacobi essentially disclaims excising TM using a cutting instrument in favor of removing TM using a scraping tool. Based on my understanding of the applicable patent law standards, Jacobi encourages a POSA to use its described gonioscraper, *i.e.*, teaches away from a cutting implement, including a device having cutting edges or knife blades.

62. Second, Jacobi reads:

> "The 'gonioscraper' consists of a small handle and a slightly convex-shaped arm for intraocular use and very much resembles a cyclodialysis spatula. However, the tip of the instrument is shaped as a tiny bowl with 300 µm diameter and with its edges sharpened (Fig 1). In order to abrade clockwise and anticlockwise the scoop is angulated vertically at 90 degrees to the left and right, respectively."

Ex. 1007 at 2.

This description contradicts Dr. Netland's characterization of the Jacobi gonioscraper as a device having, among other things, cutting edges or knife blades that cut TM to create a strip of TM.

63. In my opinion, a POSA would not have considered the sharpened edges of the bowl of the Jacobi gonioscraper to be a cutting blade. But even if that were the case, a POSA would have understood this to be a ***single*** cutting blade. Although the bowl of the Jacobi device is shown to have sharpened edges, Jacobi never describes or depicts the edges of this bowl as anything other than an unitary element, which differs from cutting edges or knife blades.

64. Dr. Netland's re-drawing of Jacobi Figure 1 to depict cutting edges or knife blades has no support in Jacobi. Ex. 1003 ¶¶192-193. So too, Dr. Netland's

re-drawing of Jacobi 2000 Figure 2 to depict a bend or curve (3) has no support in Jacobi. Ex. 1003 ¶201. Moreover, Jacobi Figure 1, which is a close up image of the gonioscraper tip, shows no bend or curve at the distal end of the shaft. Both sets of re-drawings, in my opinion, are wrong and are based solely on his own speculation, conjecture and hindsight.

65. In my opinion, a POSA would not have found anything in Jacobi to indicate or suggest that any portion of the Jacobi gonioscraper as depicted in Figure 1, including the sharpened edge or inner surface of the tiny bowl at the gonioscraper tip, represents a foot member or platform. *See* Ex. 1003 ¶¶198-199. There is no basis in the '544 Patent for Dr. Netland's assertion that a foot member is simply a portion of the distal end of the device shaft or that a platform is simply a portion of the foot. *Id.* ¶¶110, 197.

66. Dr. Netland's re-drawing of Figure 1 of Jacobi to depict a platform or upper side of the foot member cannot be reconciled with Jacobi or the '544 Patent. For example, if the inner surface of the Jacobi gonioscraper tip must be the platform or upper side of the foot member of the '544 Patent as Dr. Netland depicts, *see id.* ¶141, then the single sharpened edge of the tiny bowl of the Jacobi gonioscraper tip is not part of the platform or upper side. Conversely, if the single sharpened edge of the tiny bowl of the Jacobi gonioscraper tip must be considered

part of platform or upper side of the foot member of the '544 Patent, as Dr. Netland depicts, *see id.*, then the Jacobi gonioscraper in this hypothetical configuration lacks the separate "tip" element required by the '544 Patent claims. Dr. Netland's depiction of the platform tip in his re-drawing of Jacobi Figure 1 is arbitrary and does not reconcile the discrete elements of the platform or upper side described in the '544 Patent. In any event, the tiny bowl of the Jacobi gonioscraper tip, which Dr. Netland admits looks and works much like an ice cream scoop, *see id.* ¶198, has an inner surface that slopes downwardly into the scoop, and thus, cannot be the upper side of the foot member that slopes upwardly from the tip toward the device shaft as described in the '544 Patent. In my opinion, a POSA would not have viewed the Jacobi gonioscraper as including a foot member with (1) a platform set at an angle relative to the longitudinal axis of the probe shaft or (2) an upper side that slopes upwardly from the tip toward the probe shaft.

B. The Netland Declaration

67. In addition to the statements in the Netland Declaration addressed above regarding the prior art identified in the Petition, I have the following comments regarding other statements about which I have concerns and/or disagree.

68. In at least Paragraphs 54-55 of his declaration, Dr. Netland coins the term "excisional goniotomy" and applies this perspective in at least Paragraphs

56-59 to his review of Quintana, Lee and Jacobi. I note that Dr. Netland never cites any reference, prior art or otherwise, where "excisional goniotomy" is defined or adopted. In my opinion, a POSA would not have known or used the term "excisional goniotomy" on or before the January 18, 2001 priority date. A POSA would not have applied this terminology in reading the prior art identified in the Petition.

C. Application of the Prior Art to the '544 Patent Claims

69. For ease of reference, and for purposes of the following statements of my declaration only, I refer to the '544 Patent claims according to the format used by the Netland Declaration (for example, parsing Claim 1 into claim elements 1a-e and Claim 8 into claim elements 8a-f).

i. Petition Ground 1 (Claims 1-11 are not anticipated by Quintana)

70. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A device useable to create an opening in the trabecular meshwork of the eye comprising." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

71. At Paragraphs 105-107, the Netland Declaration asserts that Quintana discloses, among other things, everything in this portion of the claim. I disagree, for at least the reasons set forth in ¶¶27-41 above.

72. In my opinion, a POSA would have understood Quintana to describe using the sharp point of the needle tip of the Quintana trabeculotome to incise or tear the TM away from the lumen of Schlemm's Canal in a tangential approach where the convex side of the bent needle tip faces the exterior wall of Schlemm's Canal to avoid injuring this structure. A POSA would have understood that Quintana never describes the beveled sides of the standard hypodermic needle tip of the Quintana trabeculotome as sharp, capable of cutting tissue, or to be cutting edges or knife blades. Quintana never describes its procedure as involving creating or removing a strip of TM. Nor does Quintana even suggest that its trabeculotome would be capable of being used in any way to create or remove a strip of TM. To the extent Dr. Netland equates creating an opening in the trabecular meshwork of the eye as set forth in the preamble of Claim 1 of the '544 Patent with creating and removing a strip of TM, I disagree with this characterization. Similarly, I disagree with any assertion that Quintana discloses creating and removing a strip of TM, and therefore, I also disagree with any assertion that Quintana discloses creating an

opening in the trabecular meshwork of the eye as set forth in the preamble of Claim 1 of the '544 Patent.

73. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element c as referenced in the Netland Declaration): "a foot member which comprises a platform on the distal end of the probe shaft, said platform having a tip, an upper side, a lower side and being set at an angle relative to the longitudinal axis of the probe shaft."

74. At Paragraphs 109-113, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 above.

75. In my opinion, a POSA would not have found anything in Quintana to indicate or suggest that any portion of the Quintana trabeculotome tip as depicted in Figure 1, including the single bevel or the inner lumen of the needle tip, represents the foot member as described in the '544 Patent. I dispute Dr. Netland's assertion that the sides and/or inner lumen of the Quintana trabeculotome tip represent the upper side of the platform described in the '544 Patent. Dr. Netland points to nothing in Quintana that supports his re-drawing of Quintana Figure 1 to depict elements of a platform (including a tip, an upper side, and a lower side) that Quintana never mentions or suggests. Much less is there any indication in Quintana

that any purported platform is set at an angle relative to the longitudinal axis of the Quintana trabeculotome shaft.

76. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element d as referenced in the Netland Declaration): "wherein the foot member is insertable, tip first, from a position within the anterior chamber, through the trabecular meshwork, and into Schlemm's Canal such that the lower side is next to the scleral wall of Schlemm's Canal and the upper side is next to the trabecular meshwork; and."

77. At Paragraphs 114-115, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 above.

78. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either.

79. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element e as referenced in the Netland Declaration): "wherein, after being so inserted in Schlemm's Canal, the foot member is then advanceable, tip first, through Schlemm's Canal to facilitate performance of a surgical procedure using the surgical instrument."

80. At Paragraphs 116-117, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 above.

81. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either.

82. Claim 2 of the '544 Patent reads: "A device according to claim 1 wherein the trabecular meshwork slides over the upper side as the foot member is advanced through Schlemm's Canal."

83. At Paragraph 119, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 and 70-81 above.

84. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 2 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 2.

85. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either.

86. Claim 3 of the '544 Patent reads: "A device according to claim 2 wherein a surface of the upper side of the foot member slopes upwardly from the tip toward the shaft."

87. At Paragraph 121, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 and 70-85 above.

88. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 3 incorporates each and every element of Claims 1-2. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-2, I disagree with Dr. Netland's assertions regarding Claim 3.

89. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either. Also, in my opinion, a POSA reading the '544 Patent specification, including the figures, would have understood that the upward slope is oriented at an angle with respect to the longitudinal axis of the device (*see, e.g.*, Figs. 18-23). I disagree with Dr. Netland that the curvature of the inner lumen of the Quintana trabeculotome tip (towards the beveled sides), as with a standard hypodermic needle tip, equates to

the upward slope of the upper side of the platform of the foot member as described in the '544 Patent.

90. Claim 4 of the '544 Patent reads: "A device according to claim 1 wherein the surgical instrument is useable to perform an ab interno procedure to form an opening in the trabecular meshwork."

91. At Paragraphs 123-127, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48 and 70-81 above.

92. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 4 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 4.

93. In my opinion, a POSA would not have known definitively whether or not Quintana described an *ab interno* procedure because Quintana is less than clear on this point.

94. Claim 5 of the '544 Patent reads: "A device according to claim 4 wherein the surgical instrument comprises a goniectomy probe."

95. At Paragraph 129, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 70-81 and 90-93 above.

96. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 5 incorporates each and every element of Claims 1 and 4. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1 and 4, I disagree with Dr. Netland's assertions regarding Claims 5.

97. Because Quintana does not disclose removing TM, much less creating or removing a strip of TM, for the reasons set forth in ¶72, Quintana's device is not a goniectomy probe.

98. Claim 6 of the '544 Patent reads: "A device according to claim 4 wherein the platform is configured to protect collector channels which emanate from Schlemm's canal from damage during performance of the surgical procedure."

99. At Paragraphs 131-132, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 70-81 and 90-93 above.

100. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 6 incorporates each and every element of Claims 1 and 4. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1 and 4, I disagree with Dr. Netland's assertions regarding Claim 6.

101. Because Quintana does not disclose a foot member or a platform thereof for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either.

102. Claim 7 of the '544 Patent reads: "A device according to claim 1 wherein the bottom side of the foot member is configured such that advancing the foot member through Schlemm's Canal does not cause clinically significant damage to collector channels which emanate from Schlemm's Canal."

103. At Paragraph 134, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 70-81 and 90-93 above.

104. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 7 incorporates each and every element of Claim 1. For the

same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 7.

105. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either.

106. Claim 8 of the '544 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A method for performing a surgical procedure within the eye of a subject, said method comprising the steps of." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

107. At Paragraph 135, the Netland Declaration asserts that Quintana discloses, among other things, everything in this portion of the claim. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81 and 90-93 above.

108. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 8 incorporates each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with

Dr. Netland's assertions regarding Claims 1-7, I disagree with Dr. Netland's assertions regarding Claim 8.

109. Claim 8 of the '544 Patent reads (in pertinent part corresponding to element b as referenced in the Netland Declaration): "obtaining or providing a device according to any of claims 1 through 7."

110. At Paragraph 136, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81 and 90-93 above.

111. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 8 incorporates each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-7, I disagree with Dr. Netland's assertions regarding Claim 8.

112. Claim 9 of the '544 Patent reads: "A method according to claim 8 wherein the surgical procedure comprises forming an opening in the trabecular meshwork."

113. At Paragraph 142, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81, 90-93 and 106-111 above.

114. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 9 incorporates each and every element of Claim 8, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-8, I disagree with Dr. Netland's assertions regarding Claim 9.

115. Quintana never describes its procedure as involving creating or removing a strip of TM. Nor does Quintana even suggest that its trabeculotome would be capable of being used in any way to create or remove a strip of TM. To

the extent Dr. Netland equates creating an opening in the trabecular meshwork of the eye as set forth in Claim 9 of the '544 Patent with creating and removing a strip of TM, I disagree with this characterization. Similarly, I disagree with any assertion that Quintana discloses creating and removing a strip of TM, and therefore, I also disagree with any assertion that Quintana discloses creating an opening in the trabecular meshwork of the eye as set forth in Claim 9 of the '544 Patent.

116. Claim 10 of the '544 Patent reads: "A method according to claim 9 wherein the trabecular meshwork slides over the upper side as the foot member as the foot member is advanced through Schlemm's Canal."

117. At Paragraph 144, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81, 90-93 and 106-115 above.

118. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 10 incorporates each and every element of Claims 8-9, as well as each and every

element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-9, I disagree with Dr. Netland's assertions regarding Claim 10.

119. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either.

120. Claim 11 of the '544 Patent reads: "A device according to claim 10 wherein the trabecular meshwork slides over a surface of the upper side of the foot member which slopes upwardly from the tip toward the probe shaft."

121. At Paragraph 146, the Netland Declaration asserts that Quintana discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81, 90-93 and 106-119 above.

122. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 11 incorporates each and every element of Claims 8-10, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims

1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-10, I disagree with Dr. Netland's assertions regarding Claim 11.

123. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either. Also, in my opinion, a POSA reading the '544 Patent specification, including the figures, would have understood that the upward slope is oriented at an angle with respect to the longitudinal axis of the device (*see, e.g.*, Figs. 18-23). I disagree with Dr. Netland that the curvature of the inner lumen of the Quintana trabeculotome tip (towards the beveled sides), as with a standard hypodermic needle tip, equates to the upward slope of the upper side of the platform of the foot member as described in the '544 Patent.

ii. Petition Ground 2 (Claims 1-11 are not obvious over Quintana in view of the knowledge in the art)

124. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A device useable to create an opening in the trabecular meshwork of the eye comprising." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

125. At Paragraphs 148-152, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶27-41 above.

126. To the extent Dr. Netland equates creating an opening in the trabecular meshwork of the eye as set forth in the preamble of Claim 1 of the '544 Patent with creating and removing a strip of TM, I disagree with this characterization. Similarly, I disagree with any assertion that Quintana discloses creating and removing a strip of TM, and therefore, I also disagree with Dr. Netland's assertion that Quintana discloses creating an opening in the trabecular meshwork of the eye as set forth in the preamble of Claim 1 of the '544 Patent. I note that Dr. Netland is unable to point to any statement in Quintana, Lee, Jacobi, Moses (Ex. 1023), Shields (Ex. 1011), Peyman (Ex. 1022) or any of the other prior art cited in the Petition to support his assertion that a POSA would have been motivated to modify the Quintana trabeculotome by adding tissue cutting or ablating mechanisms. The fact that Quintana does not disclose removing TM, much less a strip of TM, further undercuts Dr. Netland's purported motivation in the art generally.

127. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element c as referenced in the Netland Declaration): "a foot member which comprises a platform on the distal end of the probe shaft, said platform having a tip, an upper side, a lower side and being set at an angle relative to the longitudinal axis of the probe shaft."

128. At Paragraph 154, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 above.

129. For the reasons set forth in Paragraph 75 above, Quintana does not disclose a foot member. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add a foot member.

130. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element d as referenced in the Netland Declaration): "wherein the foot member is insertable, tip first, from a position within the anterior chamber, through the trabecular meshwork, and into Schlemm's Canal such that the lower side is next to the scleral wall of Schlemm's Canal and the upper side is next to the trabecular meshwork."

131. At Paragraph 155, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 above.

132. For the reasons set forth in Paragraph 75 above, Quintana does not disclose a foot member. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add a foot member.

133. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element e as referenced in the Netland Declaration): "wherein, after being so inserted in Schlemm's Canal, the foot member is then advanceable, tip first, through Schlemm's Canal to facilitate performance of a surgical procedure using the surgical instrument."

134. At Paragraphs 156-157, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 above.

135. For the reasons set forth in Paragraph 75 above, Quintana does not disclose a foot member. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add a foot member.

136. Claim 2 of the '544 Patent reads: "A device according to claim 1 wherein the trabecular meshwork slides over the upper side as the foot member is advanced through Schlemm's Canal."

137. At Paragraphs 158-159, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 and 70-81 above.

138. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 2 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 2.

139. For the reasons set forth in Paragraph 75 above, Quintana does not disclose a foot member. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add a foot member.

140. Claim 3 of the '544 Patent reads: "A device according to claim 2 wherein a surface of the upper side of the foot member slopes upwardly from the tip toward the shaft."

141. At Paragraphs 160-161, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26 and 70-85 above.

142. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 3 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 3.

143. For the reasons set forth in ¶89, Quintana does not disclose this claim element. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add this missing element.

144. Claim 4 of the '544 Patent reads: "A device according to claim 1 wherein the surgical instrument is useable to perform an ab interno procedure to form an opening in the trabecular meshwork."

145. At Paragraphs 162-168, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48 and 70-81 above.

146. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 4 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 4.

147. In my opinion, a POSA would not have known definitively whether or not Quintana described an *ab interno* procedure because Quintana is less than clear on this point.

148. Claim 5 of the '544 Patent reads: "A device according to claim 4 wherein the surgical instrument comprises a goniectomy probe."

149. At Paragraph 170, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 70-81 and 90-93 above.

150. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 5 incorporates each and every element of Claims 1 and 4. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1 and 4, I disagree with Dr. Netland's assertions regarding Claims 5.

151. Because Quintana does not disclose removing TM, much less creating or removing a strip of TM, for the reasons set forth in ¶72, Quintana's device is not a goniectomy probe. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add this missing element.

152. Claim 6 of the '544 Patent reads: "A device according to claim 4 wherein the platform is configured to protect collector channels which emanate from Schlemm's canal from damage during performance of the surgical procedure."

153. At Paragraphs 172-173, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 70-81 and 90-93 above.

154. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 6 incorporates each and every element of Claims 1 and 4. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1 and 4, I disagree with Dr. Netland's assertions regarding Claim 6.

155. Because Quintana does not disclose a foot member or a platform thereof for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add this missing element.

156. Claim 7 of the '544 Patent reads: "A device according to claim 1 wherein the bottom side of the foot member is configured such that advancing the foot member through Schlemm's Canal does not cause clinically significant damage to collector channels which emanate from Schlemm's Canal."

157. At Paragraph 175, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 70-81 and 90-93 above.

158. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 7 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 7.

159. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana trabeculotome to add this missing element.

160. Claim 8 of the '544 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A method for performing a surgical procedure within the eye of a subject, said method comprising the steps of." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

161. At Paragraphs 176-177, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81 and 90-93 above.

162. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 8 incorporates each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f)

Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-7, I disagree with Dr. Netland's assertions regarding Claim 8. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana method to add this missing element.

163. Claim 8 of the '544 Patent reads (in pertinent part corresponding to element b as referenced in the Netland Declaration): "obtaining or providing a device according to any of claims 1 through 7."

164. At Paragraph 178, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81 and 90-93 above.

165. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 8 incorporates each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with

Dr. Netland's assertions regarding Claims 1-7, I disagree with Dr. Netland's assertions regarding Claim 8. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana method to add these missing elements.

166. Claim 9 of the '544 Patent reads: "A method according to claim 8 wherein the surgical procedure comprises forming an opening in the trabecular meshwork."

167. At Paragraph 185, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81, 90-93 and 106-111 above.

168. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 9 incorporates each and every element of Claim 8, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7.

For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-8, I disagree with Dr. Netland's assertions regarding Claim 9.

169. Quintana never describes its procedure as involving creating or removing a strip of TM. Nor does Quintana even suggest that its trabeculotome would be capable of being used in any way to create or remove a strip of TM. To the extent Dr. Netland equates creating an opening in the trabecular meshwork of the eye as set forth in Claim 9 of the '544 Patent with creating and removing a strip of TM, I disagree with this characterization. Similarly, I disagree with any assertion that Quintana discloses creating and removing a strip of TM, and therefore, I also disagree with any assertion that Quintana discloses creating an opening in the trabecular meshwork of the eye as set forth in Claim 9 of the '544 Patent. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana method to add this missing element.

170. Claim 10 of the '544 Patent reads: "A method according to claim 9 wherein the trabecular meshwork slides over the upper side as the foot member as the foot member is advanced through Schlemm's Canal."

171. At Paragraph 187, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things,

everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81, 90-93 and 106-115 above.

172. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 10 incorporates each and every element of Claims 8-9, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-9, I disagree with Dr. Netland's assertions regarding Claim 10.

173. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana method to add this missing element.

174. Claim 11 of the '544 Patent reads: "A device according to claim 10 wherein the trabecular meshwork slides over a surface of the upper side of the foot member which slopes upwardly from the tip toward the probe shaft."

175. At Paragraph 189, the Netland Declaration asserts that Quintana in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶23-26, 43-48, 70-81, 90-93 and 106-119 above.

176. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 11 incorporates each and every element of Claims 8-10, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-10, I disagree with Dr. Netland's assertions regarding Claim 11.

177. Because Quintana does not disclose a foot member for the reasons set forth in Paragraph 75 above, Quintana does not disclose this claim element either. Also, in my opinion, a POSA reading the '544 Patent specification, including the figures, would have understood that the upward slope is oriented at an angle with respect to the longitudinal axis of the device (*see, e.g.*, Figs. 18-23). I disagree with

Dr. Netland that the curvature of the inner lumen of the Quintana trabeculotome tip (towards the beveled sides), as with a standard hypodermic needle tip, equates to the upward slope of the upper side of the platform of the foot member as described in the '544 Patent. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Quintana method to add this missing element.

iii. Petition Ground 3 (Claims 1-11 are not obvious over Jacobi in view of the knowledge in the art)

178. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A device useable to create an opening in the trabecular meshwork of the eye comprising." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

179. At Paragraphs 191-195, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶60-64 above.

180. To the extent Dr. Netland equates creating an opening in the trabecular meshwork of the eye as set forth in the preamble of Claim 1 of the '544 Patent with creating and removing a strip of TM, I disagree with this characterization. Similarly, I disagree with any assertion that Jacobi discloses

creating and removing a strip of TM, and therefore, I also disagree with Dr. Netland's assertion that Jacobi discloses creating an opening in the trabecular meshwork of the eye as set forth in the preamble of Claim 1 of the '544 Patent. I note that Dr. Netland is unable to point to any statement in Quintana, Lee, Jacobi, Moses (Ex. 1023), Shields (Ex. 1011), Peyman (Ex. 1022) or any of the other prior art cited in the Petition to support his assertion that a POSA would have been motivated to modify the Jacobi gonioscraper by adding tissue cutting or different ablating mechanisms. The fact that Jacobi does not disclose removing a strip of TM, but instead discloses removing TM by scraping or abrading rather than incising TM, further undercuts Dr. Netland's purported motivation in the art generally.

181. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element c as referenced in the Netland Declaration): "a foot member which comprises a platform on the distal end of the probe shaft, said platform having a tip, an upper side, a lower side and being set at an angle relative to the longitudinal axis of the probe shaft."

182. At Paragraphs 197-201, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things,

everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 above.

183. In my opinion, a POSA would not have found anything in Jacobi to indicate or suggest that any portion of the Jacobi gonioscraper as depicted in Figure 1, including the sharpened edge or inner surface of the tiny bowl at the gonioscraper tip, represents a foot member as described in the '544 Patent. Dr. Netland points to nothing that supports his re-drawing of Jacobi Figure 1 to depict elements of a platform (including a tip, an upper side, and a lower side) that Jacobi never mentions or suggests. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add a foot member. Much less is there any indication in Jacobi that any purported platform is set at an angle relative to the longitudinal axis of the Jacobi gonioscraper shaft. Dr. Netland's attempt to support this assertion with his own re-drawing of Jacobi 2000 Figure 2 to depict a bend or curve (3) is belied by Jacobi Figure 1, a close up image of the gonioscraper tip, that shows no bend or curve at the distal end of the shaft.

184. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element d as referenced in the Netland Declaration): "wherein the foot member is insertable, tip first, from a position within the anterior chamber, through the trabecular meshwork, and into Schlemm's Canal such that the lower side is next to

the scleral wall of Schlemm's Canal and the upper side is next to the trabecular meshwork; and."

185. At Paragraphs 202-203, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 above.

186. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose a foot member. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add a foot member.

187. Claim 1 of the '544 Patent reads (in pertinent part corresponding to element e as referenced in the Netland Declaration): "wherein, after being so inserted in Schlemm's Canal, the foot member is then advanceable, tip first, through Schlemm's Canal to facilitate performance of a surgical procedure using the surgical instrument."

188. At Paragraphs 204-206, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 above.

189. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose a foot member. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add a foot member.

190. Claim 2 of the '544 Patent reads: "A device according to claim 1 wherein the trabecular meshwork slides over the upper side as the foot member is advanced through Schlemm's Canal."

191. At Paragraphs 208-210, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 and 178-189 above.

192. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 2 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 2.

193. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose a foot member. I disagree with Dr. Netland's assertion that a POSA would have combined Lee and the general knowledge in the art to try to modify the Jacobi gonioscraper by adding the protruding terminal end from Lee so that, in the

modified device, TM would pass over the protruding terminal end before contacting the single edge of the Jacobi gonioscraper. *See* Ex. 1003 ¶209. But Jacobi, Lee and the general knowledge in the art, alone or in combination, provide no reason whatsoever to do so. For example, Dr. Netland's assertion that modifying the Jacobi gonioscraper to include the Lee protruding terminal end would ease tissue penetration is baseless. *See id.* ¶210. Nowhere in Jacobi, Lee or the general knowledge in the art is there any indication that the Jacobi gonioscraper needed improved tissue penetration or that the Lee protruding terminal end could solve that purported need. In my opinion, a POSA would not have been motivated to modify the Jacobi gonioscraper in the manner Dr. Netland proposes, which is wrong and is based solely on his own speculation, conjecture and hindsight.

194. Claim 3 of the '544 Patent reads: "A device according to claim 2 wherein a surface of the upper side of the foot member slopes upwardly from the tip toward the shaft."

195. At Paragraph 212, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 and 178-193 above.

196. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 3 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 3.

197. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose this claim element. Also, the tiny bowl of the Jacobi gonioscraper tip, which Dr. Netland admits looks and works much like an ice cream scoop, *see* Ex. 1003 ¶198, has an inner surface that slopes downwardly into the scoop, and thus, cannot be the upper side of the foot member that slopes upwardly from the tip toward the device shaft as described in the '544 Patent. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add this missing element.

198. Claim 6 of the '544 Patent reads: "A device according to claim 4 wherein the platform is configured to protect collector channels which emanate from Schlemm's canal from damage during performance of the surgical procedure."

199. At Paragraphs 218-220, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things,

everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 above.

200. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 6 incorporates each and every element of Claims 1 and 4. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1 and 4, I disagree with Dr. Netland's assertions regarding Claim 6.

201. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose a foot member or a platform thereof. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add a foot member or a platform thereof. In any event, in my opinion, a POSA reading Jacobi would not have been motivated to modify the Jacobi gonioscraper to add a feature to protect against injury to the collector channels emanating from Schlemm's Canal. Jacobi and Jacobi 2000 both acknowledged that the use of their gonioscrapers injured the external wall of Schlemm's Canal, and both were otherwise unconcerned with this result. *See* Ex. 1007 at 3 ("From light microscopy of histological sections (Fig 3A and B) it was evident that in addition to peeling and disruption of the trabecular meshwork the gonioscraper caused damage to septa and endothelium of the external wall of

Schlemm's canal, and disruption along the posterior wall of the canal."); Ex. 1013 at 2 ("From light microscopy of histological sections it is evident that, in addition to the peeling of the trabecular meshwork, goniocurettage also causes damage to intracanalicular septa and the endothelium of the external wall of Schlemm's canal, and in some instances a disruption along the posterior wall of Schlemm's canal.").

202. Claim 7 of the '544 Patent reads: "A device according to claim 1 wherein the bottom side of the foot member is configured such that advancing the foot member through Schlemm's Canal does not cause clinically significant damage to collector channels which emanate from Schlemm's Canal."

203. At Paragraph 222, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶64-66 and 198-201 above.

204. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends. In this regard, I understand that Claim 7 incorporates each and every element of Claim 1. For the same reasons that I disagree with Dr. Netland's assertions regarding Claim 1, I disagree with Dr. Netland's assertions regarding Claim 7.

205. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose a foot member or a platform thereof. For the reasons set forth in Paragraph 201 above, a POSA reading Jacobi would not have been motivated to modify the Jacobi gonioscraper to add a feature to protect against clinically significant damage to the collector channels emanating from Schlemm's Canal.

206. Claim 8 of the '544 Patent reads (in pertinent part corresponding to element a as referenced in the Netland Declaration): "A method for performing a surgical procedure within the eye of a subject, said method comprising the steps of." I have been informed by counsel that this portion of the claim is called the preamble and may or may not be an actual limitation to the claim.

207. At Paragraphs 223-224, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶60-66 and 178-205 above.

208. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 8 incorporates each and every element of one of the following claim sets: (a) Claim

1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-7, I disagree with Dr. Netland's assertions regarding Claim 8. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi method to add this missing element.

209. Claim 8 of the '544 Patent reads (in pertinent part corresponding to element b as referenced in the Netland Declaration): "obtaining or providing a device according to any of claims 1 through 7."

210. At Paragraph 225, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶60-66 and 178-208 above.

211. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 8 incorporates each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f)

Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-7, I disagree with Dr. Netland's assertions regarding Claim 8. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi method to add these missing elements.

212. Claim 9 of the '544 Patent reads: "A method according to claim 8 wherein the surgical procedure comprises forming an opening in the trabecular meshwork."

213. At Paragraph 233, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶60-66 and 178-211 above.

214. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 9 incorporates each and every element of Claim 8, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7.

For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-8, I disagree with Dr. Netland's assertions regarding Claim 9.

215. To the extent Dr. Netland equates creating an opening in the trabecular meshwork of the eye as set forth in Claim 9 of the '544 Patent with creating and removing a strip of TM, I disagree with this characterization. Similarly, I disagree with any assertion that Jacobi discloses creating and removing a strip of TM, and therefore, I also disagree with Dr. Netland's assertion that Jacobi discloses creating an opening in the trabecular meshwork of the eye as set forth in Claim 9 of the '544 Patent. I note that Dr. Netland is unable to point to any statement in Quintana, Lee, Jacobi, Moses (Ex. 1023), Shields (Ex. 1011), Peyman (Ex. 1022) or any of the other prior art cited in the Petition to support his assertion that a POSA would have been motivated to modify the Jacobi gonioscraper by adding tissue cutting or different ablating mechanisms. The fact that Jacobi does not disclose removing a strip of TM, but instead discloses removing TM by scraping or abrading rather than incising TM, further undercuts Dr. Netland's purported motivation in the art generally.

216. Claim 10 of the '544 Patent reads: "A method according to claim 9 wherein the trabecular meshwork slides over the upper side as the foot member as the foot member is advanced through Schlemm's Canal."

217. At Paragraph 235, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶60-66 and 178-215 above.

218. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 10 incorporates each and every element of Claims 8-9, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-9, I disagree with Dr. Netland's assertions regarding Claim 10.

219. Because Jacobi does not disclose a foot member for the reasons set forth in Paragraph 183 above, Jacobi does not disclose this claim element either. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi method to add this missing element.

220. Claim 11 of the '544 Patent reads: "A device according to claim 10 wherein the trabecular meshwork slides over a surface of the upper side of the foot member which slopes upwardly from the tip toward the probe shaft."

221. At Paragraph 237, the Netland Declaration asserts that Jacobi in combination with the knowledge in the art discloses, among other things, everything in this claim or claim element. I disagree, for at least the reasons set forth in ¶¶60-66 and 178-219 above.

222. I have been informed by counsel that a dependent claim incorporates each and every element of the claim from which it depends, and a multiple dependent claim incorporates each and every element of one of the particular alternative claims it references. In this regard, I understand that Claim 11 incorporates each and every element of Claims 8-10, as well as each and every element of one of the following claim sets: (a) Claim 1, (b) Claims 1-2, (c) Claims 1-3, (d) Claims 1 and 4, (e) Claims 1 and 4-5, (f) Claims 1, 4, and 6, or (g) Claims 1 and 7. For the same reasons that I disagree with Dr. Netland's assertions regarding Claims 1-10, I disagree with Dr. Netland's assertions regarding Claim 11.

223. For the reasons set forth in Paragraph 183 above, Jacobi does not disclose this claim element. Also, the tiny bowl of the Jacobi gonioscraper tip,

which Dr. Netland admits looks and works much like an ice cream scoop, *see* Ex. 1003 ¶198, has an inner surface that slopes downwardly into the scoop, and thus, cannot be the upper side of the foot member that slopes upwardly from the tip toward the device shaft as described in the '544 Patent. I note that Dr. Netland never addresses if or why a POSA would have attempted to modify the Jacobi gonioscraper to add this missing element.

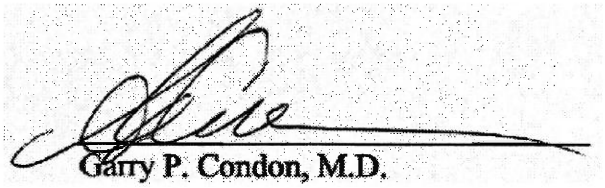
D. CONCLUSION

224. In my opinion, according to the applicable legal standards as I understand them, a POSA reading the cited prior art in the Petition along with the general knowledge in the art would have concluded with a reasonable scientific certainty that Claims 1-11 of the '544 patent are not invalid, and specifically would have found that: (I) Claims 1-11 are not anticipated under 35 U.S.C. § 102 by Quintana (Ex. 1004); (II) Claims 1-11 are not rendered obvious under 35 U.S.C. § 103 by Quintana (Ex. 1004) in view of the knowledge of a person of ordinary skill in the art; (III) Claims 1-11 are not rendered obvious under 35 U.S.C. § 103 by Jacobi (Ex. 1007) in view of the knowledge of a person of ordinary skill in the art.

225. I declare under penalty of perjury that the foregoing is true and correct. I declare that all statements made herein of my knowledge are true, and that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: June 12, 2021

Respectfully submitted,



Garry P. Condon, M.D.

Appendix A

CURRICULUM VITAE

Name: **GARRY PASCAL CONDON, M.D.**

Address: Coastal Eye Institute
217 Manatee Avenue E.
Bradenton, FL 34208

Date of Birth: May 17, 1958

Place of Birth: Winnipeg, Manitoba, Canada

Citizenship: U.S.
Canadian

Education:

1979 B. Med. Sc.	Memorial University of Newfoundland St. John's, Newfoundland, Canada
1981 M.D.	Memorial University of Newfoundland St. John's, Newfoundland, Canada

Internship and Residency:

1981-82	Intern (Straight Internal Medicine) Memorial University of Newfoundland, St. John's, Newfoundland, Canada
1983-86	Resident in Ophthalmology, University of Western Ontario, London, Ontario, Canada

Fellowships:

1982-83	Fellow in Ophthalmic Pathology, McGill Pathology Institute (Dr. Seymour Brownstein), Montreal, Quebec, P.Q., Canada
1986-88	Fellow, New England Glaucoma Research Foundation (Dr. Richard J. Simmons), Boston, MA

Licensure and Certification:

1983	Licentiate of the College of Physicians and Surgeons of Ontario, Canada
1983	Licentiate of the State of New York in Medicine and Surgery
1984	Licentiate of the Medical Council of Canada
1986	Licentiate of the Commonwealth of Massachusetts Board of Registration in Medicine
1986	Fellow of the Royal College of Surgeons (Canada) - Ophthalmology
1987	Diplomate - American Board of Ophthalmology
1987	Licentiate of the Commonwealth of Pennsylvania State Board of Medicine

Current Medical Licensure:

State of Florida Medical License ME 121450	Initial License Date: 08/29/2014 Expiration Date: 01/31/2023

Speciality Certification:

American Board of Ophthalmology (No certification #)	Issue Date: 10/27/1987 (No expiration date)

Professional Memberships:

1988 - 2019	Fellow of The American Academy of Ophthalmology

1988 - 2018	Member of the Pittsburgh Ophthalmology Society
1988 - Present	Member Chandler-Grant Glaucoma Society
1989 - 2018	Member of the Allegheny County Medical Society
1989 - 2018	Member of the Pennsylvania Medical Society
1989 - Present	Member of the American Medical Association
1992 - 2018	Member of the Pennsylvania Academy of Ophthalmology
2000 - Present	Member of the American Society of Cataract and Refractive Surgery
2004 - Present	Member of the American Glaucoma Society
2005 - Present	Member of the International Intra-Ocular Implant Club
2015 - Present	Member of the Florida Medical Association
2019 - Present	Life Member of The American Academy of Ophthalmology

Appointments:

1987 - 1988	Clinical Instructor in Ophthalmology Harvard Medical School, Boston
1988 - 1996	Assistant Professor of Surgery (Ophthalmology) Medical College of Pennsylvania, Pittsburgh, PA
1990 - 2018	Director, Division of Glaucoma, Department of Ophthalmology Allegheny General Hospital, Pittsburgh, PA
1991 - 2003	Adjunct Clinical Instructor in Ophthalmology University of Pittsburgh, Pittsburgh, PA
1996 - 2000	Assistant Professor of Ophthalmology in the Department of Ophthalmology, MCP□Hahnemann School of Medicine, Allegheny General Hospital Campus, Pittsburgh, PA
2000 - 2014	Associate Professor of Ophthalmology in the Department of Ophthalmology, Drexel University College of Medicine, Allegheny General Hospital Campus, Pittsburgh, PA
2002 - 2007	Vice Chairman, Department of Ophthalmology, Allegheny General Hospital, Pittsburgh, PA
2004 - Present	Clinical Assistant Professor in the Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA

Appointments:-cont'd

2007 – 2018	Chairman in the Department of Ophthalmology, Allegheny General Hospital, Pittsburgh, PA
2015 – Present	Professor in the Department of Ophthalmology, Drexel University College of Medicine, Philadelphia, PA

Societies / Committees Positions:

1990 - 1994	Continuing Medical Education Committee Allegheny General Hospital
1991 - 1993	Executive Committee, Pittsburgh Ophthalmology Society
1992 - 1995	Operating Room Adhoc Committee for Minimally Invasive Surgery
2001 - 2003	Secretary-Treasurer, Chandler – Grant Glaucoma Society
2001 - 2004	Operating Room Committee
2002 - 2018	Program Committee, Pittsburgh Ophthalmology Society
2005 - Present	Member ASCRS Glaucoma Clinical Committee
2007 – Present	Member of the Special Projects Committee, American Academy of Ophthalmology

Awards:

1984 Percy Hermant Fellowship in Ophthalmology, University of Western Ontario, London, Ontario, Canada

2001 Achievement Award, American Academy of Ophthalmology

2005 – Present The Best Doctors in America

2008 "Doctor's Choice Award", XXII Annual American College of Eye Surgeons Meeting. San Juan, Puerto Rico

Awards:-cont'd

2008 "America's Top Ophthalmologists", Cataract/Glaucoma Surgery, Consumers' Research Council of America

2008 Contributions in the Advancement of Surgical Treatment for Glaucoma, Optonol, Inc., American Society of Cataract and Refractive Surgeons Meeting, Chicago, IL

2010 Senior Achievement Award, American Academy of Ophthalmology

2011 "America's Top Ophthalmologists", Cataract/Glaucoma Surgery, Consumers' Research Council of America

2012 Best Physicians As Chosen By Their Peers, Pittsburgh Magazine

2017 - 2020 Castle - Connelly Top Doctor

2018 - 2020 'Top Doctor' Sarasota Magazine

Abstracts:

Savage JA, **Condon GP**, Lytle RA, Simmons RJ: A Hybrid Glaucoma Filtration Operation: Controlled Post-Operative Argon Laser Suture Lysis with Small Flap Trabeculectomy. Annual meeting of the American Academy of Ophthalmology, Dallas TX, October 1987

Lytle RA, Reed JA, **Condon GP**, Maestre F, Simmons RJ: "Internal Revision in Glaucoma Filtration Surgery", American Academy of Ophthalmology Meeting, Las Vegas, NV: October 8-12, 1988. (poster)

Lehrer RA, **Condon GP**, Baker KS, Spanich CG: "Primary Trabeculectomy with Adjusted Mitomycin Exposure Time", American Academy of Ophthalmology Meeting, Chicago, IL: November 14-18, 1993. (poster)

Lehrer RA, **Condon GP**, Baker KS, Spanich CG: "Combined Phacoemulsification and Trabeculectomy with Adjusted Mitomycin Exposure", American Academy of Ophthalmology Meeting, Chicago, IL: November 14-18, 1993. (poster)

Lehrer RA, **Condon GP**, Baker KS, Spanich CG: "Adjusted Mitomycin Exposure Time in Poor Prognosis Trabeculectomy Surgery", American Academy of Ophthalmology Meeting, Chicago, IL: November 14-18, 1993. (poster)

Abstracts:-cont'd

Baker KS, **Condon GP**, Lehrer RA: "Occurrence of Branch Retinal Vein and Central Retinal Vein Occlusion Following Trabeculectomy Surgery", ARVO Annual Meeting, Ft. Lauderdale, FL: April 21-26, 1996. (poster)

Suh SH, Baker KS, **Condon GP**, Lehrer RA: "Outcomes and Complications Following Combined Cataract and Trabeculectomy Surgery Using Mitomycin C", ARVO Annual Meeting, Ft. Lauderdale, FL: May 11-16, 1997. (poster)

Condon GP. Application of a Single-Piece Acrylic Lens in Glaucomatous Eyes, Annual Meeting of American Society of Cataract and Refractive Surgery, Boston, MA, May 2000

Bindlish R, **Condon GP**, Lehrer RA et al. Efficacy and safety of mitomycin-c in primary trabeculectomy – five year follow up. Meeting of the American Academy of Ophthalmology, Dallas TX, November 2000

Bindlish R, **Condon GP**, Lauer KB et al. Scleral reinforcement surgery for late hypotony after trabeculectomy with mitomycin-c. Meeting of the American Academy of Ophthalmology, Dallas TX, November 2000 (poster)

Condon GP. Biomechanical attributes of a single-piece acrylic intraocular lens in glaucomatous eyes. Annual Meeting of American Society of Cataract and Refractive Surgery, San Diego CA, April 2001

Condon GP. Secondary small incision iris fixation of an acrylic intraocular lens in the absence of capsular support. Annual Meeting of the American Society of Cataract and Refractive Surgery, Philadelphia PA, June 2002

Lauer KB, Herzig D, **Condon GP**. Trabeculectomy with mitomycin-c in neovascular glaucoma: long-term efficacy and complications. Annual Meeting of the American Academy of Ophthalmology, Orlando FL 2002 (poster)

Monsul NT, Cockerham KP, **Condon GP**. Retinal topography in unilateral optic neuropathy. Annual Meeting of the American Academy of Ophthalmology, Orlando FL 2002 (poster)

Abstracts:-cont'd

Condon GP, Ahmed IK, Masket S et al. Iris fixation of foldable PC IOL with modified McCannel slip-knot. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco, April 2003

Condon GP, Ahmed I, Masket S, Kranemann C, Crandall AS. Peripheral Iris Fixation of Foldable Acrylic Posterior Chamber IOLs: Efficacy and Complications. Annual meeting of the AAO New Orleans LA 2004 (poster)

Chiniwalla RN, **Condon GP**. Long-term Results of Conjunctivoplasty for Bleb Related Complications. Annual meeting of the AAO New Orleans LA 2004 (poster)

Mura J, Ahmed I, Kranemann C, Pavlin C, **Condon GP**, Ishikawa H. Ultrasound Biomicroscopy Analysis of Iris-Fixated Posterior Chamber IOLs. Annual Meeting of the ASCRS Washington DC, 2005.

Teichman JC, Vold S, Masket S, Crandall AS, **Condon GP**, Ahmed IK. Comparison of Outcomes Between IOL Exchange and IOL Suture Repositioning for IOL Dislocation. Annual meeting AAO Atlanta GA. 2008

Teichman JC, Vold S, Masket S, Crandall AS, **Condon GP**, Ahmed IK. Comparison of Scleral-Sutured and Iris-Sutured Repositioning for IOL Dislocation. Annual meeting AAO Atlanta GA. 2008

Condon GP, Update on Trabectome for Open-Angle Glaucoma, Co-Author (Poster). AAO, Chicago IL

Condon GP, Trabectome Combined with Phacoemulsification Versus Phacoemulsification Alone: Prospective Nonrandomized Controlled Comparative Trial. Glaucoma Paper Session. ASCRS-ASOA. San Diego CA 2011

Condon GP, Comparison of ExPRESS Miniature Glaucoma Device Implanted Under Scleral Flap with Trabeculectomy, Co-Author (Paper) PA093 AAO Chicago IL 2012

Netland PA, Sarkisian SR, Moster MR, Ahmed IK, **Condon GP**, Salim S, Sherwood MB, Siegfried CJ. Randomized, Prospective, Comparative Trial of EX-PRESS Glaucoma Filtration Device Versus Trabeculectomy (XVT Study) 2013

Publications:

McFarlane DC, **Condon GP**: Surgical Management Considerations for the Younger Adult Cataract Patient. *Current Can. Ophthalmic Practice* 1984; 2:15.

Brownstein S, Barsoum-Homsy M, Conway VH, Sales C, **Condon GP**: Nonteratoid Medulloepithelioma of the Ciliary Body. *Ophthalmology* 1984: 91:1118-1122.

Brownstein S, Belin MW, Krohel GB, Smith RS, **Condon GP**, Codere F: Orbital Dacryops. *Ophthalmology* 1984; 91:1424-1428.

Condon GP, Brownstein S, Codere F: Sebaceous Carcinoma of the Eyelid Masquerading as a Superior Limbic Keratoconjunctivitis. *Arch Ophthalmol* 1985; 103:1525-1529.

Condon GP, Brownstein S, Wang NS, Kearns JAF, Ewing CC: Hereditary (X-Linked Juvenile) Retinoschisis: Clinical Histopathologic and Ultrastructural Findings. *Arch Ophthal* 1986; 104:576-583.

Savage JA, **Condon GP**, Lytle RA, Simmons RJ: A Hybrid Glaucoma Filtration Operation: Controlled Post-Operative Argon Laser Suture Lysis with Small Flap Trabeculectomy. *Ophthalmology* 1988; 95:1631-1636.

Condon GP. Response to consultation section. J Cataract Refract Surg 2001; 27:502-3

Bindlish R, **Condon GP**, Lehrer RA, Lauer KB, Schlosser MS, d'Antonio JD. Efficacy and safety of mitomycin-c in primary trabeculectomy–Five year followup. *Ophthalmology* 2002; 109: 1336-1341

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Condon GP. Simplified small incision peripheral iris fixation of an Acrysof intraocular lens in the absence of capsular support. *J Cataract Refract Surg* 2003; 29: 1663-1667

Condon GP. Flap technique addresses bleb-related hypotony. Review of Ophthalmology, Jobson Publishing, New York, 2003; 10: 52-55

Condon GP. Response to consultation section. J Cataract Refract Surg 2003; 29: 636-37

Publications:-cont'd

Condon GP. Substitution monotherapy. In Glaucoma Management News. Slack Inc. May 2003

Condon GP. Flap technique addresses bleb-related hypotony. Vision Times (from Review of Ophthalmology) 2003; Vol 10 (Introduced in Japanese)

Condon GP. Peripheral Iris Fixation of a Foldable Acrylic Posterior Chamber Intraocular Lens in the Absence of Capsule Support. *Techniques Ophthalmol*. 2004; 2:104.

Gimbel HV, Halkiadakis I, **Condon GP**, Kohnen T, Olson RJ. Late "in-the-bag" intraocular lens dislocation. Incidence, prevention and management. *J Cataract Refract Surg*. 2005; 31:2193-2204

Condon GP. Iris Sutured IOLs. In Review of Refractive Surgery. Jobson Publishing, Newtown Square PA, April 2004

Condon GP. Iris Sutured IOLs. In Cataract and Refractive Surgery Today. Bryn Mawr Communications LLC, Wayne PA. May 2004

Condon GP. Response to consultation section. Sam Masket MD ed. *J Cataract Refract Surg* 2004; 30: 2037

Condon GP. Challenging Cataract Cases Video Presentation. Special Video Supplement. Bryn Mawr Communications LLC, Wayne PA, 2005

Condon GP. Viscoelastic Strategies to Save the Capsule. In Cataract and Refractive Surgery Today (supp). Bryn Mawr Communications LLC, Wayne PA. April 2005

Condon GP. Response to Cataract Complications Management. Section editors Robert Cionni MD, Michael Snyder MD and Robert Osher MD. In Cataract and Refractive Surgery Today. Bryn Mawr Communications LLC, Wayne PA. May 2005

Condon GP, Iris-Fixated Posterior Chamber Intraocular Lenses. (letter) *J Cataract Refract Surg* 2006; 32:1409

Condon GP. Consultant, Sutured Posterior Chamber Intraocular Lenses Focal Points: Clinical Modules for Ophthalmologists. Published by AAO, September 2006

Condon GP. A Perspective on Antimetabolites in Glaucoma Surgery. Audio-Digest Ophthalmology, Vol 44 Issue 24, December 2006

Publications:-cont'd

Condon GP, Ahmed I, Masket S, Kranemann C, Crandall AS. Peripheral Iris Fixation of Foldable Acrylic Posterior Chamber IOLs: Efficacy and Complications. *Ophthalmology* 2007; 114:1311-1318

Condon GP. Response to Consultation Section. Sam Masket MD ed. General Cataract and Refractive Surg 2007; 33:948

Chang DF, Curbside Consultation in Cataract Surgery. **Condon GP** Question 47: "Following a Posterior Capsular Rent, the Sulcus-Fixated Intraocular Lens Has Become Decentered. How Should I Proceed?" Slack Incorporated 2007

Condon GP. Making the Most of an Imperfect Solution. Review of Ophthalmology, Jobson Publishing, New York. December 2007

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Mura J, Ahmed I, Kranemann C, Pavlin C, **Condon GP**, Ishikawa H. Ultrasound Biomicroscopy Analysis of Iris-Fixated Posterior Chamber IOLs. *Ophthalmology* (in press)

Dorey MD, **Condon GP**. Management of Dislocated Intraocular Lenses. Focal Points: Clinical Modules for Ophthalmologists. Published by AAO, (in press)

Condon GP. A Limbus- or Fornix-Based Flap? Glaucoma Today. March/April 2008 – Vol 6, No. 2

Condon GP, Davis EA, MacDonald SM. Tips for Easier, Safer Phacoemulsification: Part 2. Cataract & Refractive Surgery Today. July 2008

Condon GP, A "Cornea Conscious" Approach to Dense Nuclei. OVD Strategies for Complex Cases. Supplement to Cataract & Refractive Surgery Today. August 2008

Devgan U., **Condon GP**, Drandall AS. Subluxated Lenses in a Pediatric Patient. Cataract & Refractive Surgery Today. May 2009

Condon GP, Closing the Fornix-Based Flap. Glaucoma Today. October 2009 – Vol 7, No. 7

Condon GP, Closing the Fornix-Based Flap. EyeTube.Net 2009

Publications:-cont'd

Condon GP, Traumatic Cataract with Vitreous in Anterior Chamber for "OVD's in Challenging Cases". Video Supplement

Mura JJ, Pavlin CJ, **Condon GP**, Belovay GW, Kranemann CF, Ishikawa H, Ahmed II, Ultrasound Biomicroscopic Analysis of Iris-Sutured Foldable Posterior Chamber Intraocular Lenses. American Journal of Ophthalmology, 2010 Feb; 149(2):245-252

Condon GP, Laser Treatment, PNT versus ALT. *International Glaucoma Review,* Editor's Selection. Volume 12-1, 2010

Condon GP, Vitreous in the Anterior Chamber: Maintaining Control During Surgery

Condon GP, Single-Piece Syndrome. The Newest Form of IOL-Induced Glaucoma. Glaucoma Today. Early Summer 2011 – Volume 9, No. 3

Condon GP, Will Surgery Become the First Line of Glaucoma Treatment in the United States? Point/Counterpoint/Safer, more Efficacious Procedures will mean Earlier Surgery. (It is Highly Unlikely, Lin SC) Glaucoma Today. Summer 2011

Condon GP, Samuelson TW, Shingleton BJ, Singh K, Zabriskie N. Simultaneous, Combined Cataract and Glaucoma Surgery. Glaucoma Today May/June 2012

Condon GP, When a Torn Capsule Becomes a Total Capsulectomy. Cataract & Refractive Surgery Today June 2012

Condon GP, Brown RH, Crandall AS, Donnenfeld ED. Cataract Surgery in the High Hyperope. Glaucoma Today September/October 2012

Kirk TQ, **Condon GP**. Simplified Ab Externo Scleral Fixation for Late In-the-Bag Intraocular Lens Dislocation. J Cataract Refract Surg 2012; 38:1711-1715

Kirk TQ, **Condon GP**. Tools & Techniques. Simplifying Management of the Dislocated In-the-Bag Intraocular Lens. Eyeworld 2014-5-8; 16:53:33

Kirk TQ, **Condon GP**. Modified Wise Closure of the Conjunctival Fornix-based Trabeculectomy Flap. J Cataract Refract Surg 2014; 40:349-353

Condon GP. The Siepser Sliding Knot (Eyetube Video). Cataract & Refractive Surgery Today Europe March 2014

Publications:-cont'd

Condon GP. Noecker RJ, Radcliffe NM, Vold SD, Raviv T. Cataract Surgery Complex Case Management. Cataract with an Overhanging Bleb. Cataract & Refractive Surgery Today June 2014

Condon GP, Crandall AS, MacDonald SM, McCabe CM, Arbisser LB. Progressive Cataract Elevated IOP and Flat Anterior Chamber after PPV and Trabeculectomy. Cataract & Refractive Surgery Today July 2014

Condon GP, Moster MR. Minimizing the Invasiveness of Traditional Trabeculectomy Surgery. J Cataract Refract Surg 2014; 40:1307-1312

Condon GP. Response to Consultation Question (Cataract Surgical Problem) Posed by Dr. Samuel Masket. J Cataract Refract Surg 2014; 40:1394-1395

Condon GP, Masket S, Consultants. Placement of Endocapsular IOL's in Eyes with Zonular Compromise. Focal Points AAO. Vol XXXII, Number 7, Sept 2014

Condon GP. When Should I Perform Lens Extraction Alone for the Primary Angle – Closure Suspect? Comment PACS 'The Undisputed Mainstay of Treatment." Glaucoma Today March/April 2015

Condon GP, Crandall AS, Masket S. Decentration After IOL Exchange for UGH Syndrome. Cataract & Refractive Surgery Today June 2015

Grove K, **Condon GP**, Emy B, Chang DF, Kim T. Complication from Combined Use of Capsule Retractors and Capsular Tension Rings in Zonular Dehiscence. J Cataract Refract Surg 2015; 41:2576-2579

Siegel M, **Condon GP**. Single Suture Iris-to-Capsulorhexis Fixation for In-the-Bag Intraocular Lens Subluxation. J Cataract Refract Surg 2015; 41:2347-2352

Book Chapters:

Condon GP. Lu LW. Phacoemulsification in the Previously Filtered Eye. In: Mehta KR, Alpar JJ (Ed): *The Art of Phacoemulsification,* Jaypee Brothers: New Delhi, 2001; chap 31

Critchton AC, **Condon GP**, Trope GE. Management of the Leaking Bleb. In: Trope GE (Ed): *Glaucoma Surgery*, Taylor & Francis: New York, 2005; chap 23

Book Chapters:-cont'd

Alunni MA, **Condon GP**. Treatment of Occludable Angles and Angle Closure with Cataract Extraction. In: Kahook MY, Schuman JS, eds. Chandler and Grant's Glaucoma. 5th ed. Thorofare, NJ: SLACK Incorporated; 2013

Condon GP. Curbside Consultation in Cataract Surgery 49 Clinical Questions, 2nd Updated Edition) Question 48: "Following a Posterior Capsular Rent, the Sulcus Fixated Intraocular Lens has become Decentered. How Should Proceed?" Slack Incorporated, 2013

Condon GP, Chan CK, Agarwal A. Posterior Capsular Rupture. A Practical Guide to Prevention and Management. -15- "Management of Dislocated Intraocular Lenses." Slack Incorporated, 2014

Kirk TQ, **Condon GP**, Siegel MJ. Fixation for Delayed Bag-IOL Dislocation. In: Chang DF, Lee BS, Agarwal A, eds. Advanced IOL Fixation Techniques. Slack Inc. Thorofare NJ, 2019

Condon GP. Peripheral Iris IOL Fixation. . In: Chang DF, Lee BS, Agarwal A, eds. Advanced IOL Fixation Techniques. Slack Inc. Thorofare NJ, 2019

Named Lectures:

2009 The GV Simpson Lectureship in Ophthalmology. Western University. London Canada

2009 Joseph H. Bowlds, M.D. Lecture. Lahey Clinic Eye Institute. Late IOL Dislocation: The Real Deal. Burlington MA

2010 The Ruthanne and Richard Simmons Lecture. Glaucoma Challenges. New England Ophthalmology Society. Boston MA

2011 David Kozart Annual Lectureship. Pseudoexfoliation: Zonule Compromise & Counter Measures. Scheie Eye Institute, University of Pennsylvania. Philadelphia PA

2011 William Evans Bruner, M.D. Lecture. Trabeculectomy 2011: Is There Still a Role? Case Western Reserve University. Cleveland OH

2012 20th Annual Arthur Light, M.D. Memorial Lectureship in Ophthalmology. 5th Annual Glaucoma / Cataract Symposium. Innovations in Cataract Surgery

and Glaucoma Management. Loyola Medicine Chicago IL

2013 The 2013 Stephen A. Obstbaum, MD, Honored Lecture, "Pseudoexfoliation: My Life as a "Zonulist." What we Know, Don't Know, and Shouldn't Know." ASCRS Glaucoma Day, San Francisco CA

2015 The Gettes Lecture. 67th Annual Wills Eye Hospital Conference. Philadelphia PA

2018 The 2018 Annual Alan Crandall Lecture. 'Pseudoexfoliation' ASCRS annual Surgical Summit, Deer Valley, Utah.

AUDIO DIGEST LECTURES

2013 Zonular Compromise, Audio-Digest Ophthalmology, Vol 51 Issue 16 Aug 21, 2013 (81st Midwinter Conference Controversies in Medicine)

2013 Cataract Surgery and Glaucoma, Audio-Digest Ophthalmology, Vol 51 Issue 16 Aug 21, 2013 (81st Midwinter Conference Controversies in Medicine)

2013 Acute Angle Closure Glaucoma, Audio-Digest Ophthalmology, Vol 51 Issue 16 Aug 21, 2013 (81st Midwinter Conference Controversies in Medicine)

Participation in Symposia:

1989 "Argon Laser Suture Lysis Following Trabeculectomy", Glaucoma-Into the 1990's Symposium, co-chairman. Pittsburgh, PA

1994 "Target IOP and Mitomycin", Nantucket Glaucoma Meeting, Joel Schumann Chairman. Nantucket, MA

1997 "Coexistent Glaucoma and Cataract," 48th Annual Post-graduate Review Course: Ophthalmology, SUNY Health Science Center, Syracuse, New York

1999 "Co-existent Glaucoma and Cataract", Capital Glaucoma Meeting: The Executive Summary, Alan Robin MD, Chairman. Washington, D.C.

1999 "Phacoemulsification in the Previously Filtered Eye", Capitol Glaucoma

Meeting: The Executive Summary. Alan Robin MD, Chairman. Washington, D.C.

2002 Session Panelist: IOL power calculation after refractive surgery. Annual Meeting of the American Society of Cataract and Refractive Surgery, Philadelphia PA

Participation in Symposia:-cont'd

2002 Selected case presentation at the 'Challenging Cataract Case Symposium'. Annual Meeting of the American Society of Cataract and Refractive Surgery, Philadelphia PA

2003 Session Panelist: New IOL designs. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco, CA

2003 Phacoemulsification in the previously filtered eye. Glaucoma Management Trends. Alan Robin MD, Vitale Costa MD co-chairs. San Juan PR

2003 Non-penetrating glaucoma surgery: Indications and techniques. The Glaucoma Summit. David Dueker MD, Edward Rockwood MD co-chairs. Cole Eye Institute, Cleveland Clinic, Cleveland OH, Jan 31- Feb 1,2003

2003 Simplified Peripheral Iris Fixation of an Acrylic IOL. Advances in Glaucoma. Fabian Lerner, Chairman. Buenos Aires, Argentina.

2003 Discussant for Paper: Late dislocation of in-bag IOLS associated with pseudoexfoliation. American Academy of Ophthalmology Annual Meeting 2003, Anaheim, CA

2004 Blebitis: The Growing Dilemma-The Persistent Challenge. Advances in Glaucoma Management. Eye World Educational Symposium, San Diego CA

2004 Peripheral Iris Fixation of PC IOLs. American College of Eye Surgeons Quality Surgery IVIII. Marco Island FL

2004 Endocyclophotocoagulation: Point/Counterpoint. American College of Eye Surgeons Quality Surgery XVIII. Marco Island FL

2004 Eyepass: Ready for Prime Time? New Surgical Interventions in Glaucoma Symposium. Sponsored by ASCRS Glaucoma Clinical Committee, San Diego CA

2004 Session Panelist: Cataract/IOL. Annual meeting of the ASCRS, San Diego CA

2004 Phacoemulsification in Angle Closure Glaucoma. Asia-Far East Glaucoma Symposium. Ivan Goldberg MD moderator. Male Maldives

Participation in Symposia:-cont'd

2004 Peripheral Iris Fixation of PC IOLs in the Absence of Capsule Support. Ophthalmic Symposium. Douglas Koch MD moderator. San Antonio TX

2004 Hydrodissection. Ophthalmic Symposium. Douglas Koch moderator. San Antonio TX

2004 Combined Cataract and Glaucoma Surgery. Ophthalmic Symposium. Douglas Koch MD moderator. San Antonio TX

2005 Innovations in Glaucoma Surgery. Phaco Foldables and Refractive Results Symposium. Alan S Crandall MD moderator. Sponsored by Alcon. Park City Utah

2005 Iris Fixated versus Scleral Fixated IOLs. Point-counterpoint. Phaco Foldables and Refractive Results Symposium. Alan S Crandall MD moderator. Sponsored by Alcon. Park City Utah

2005 Management of dislocated IOLs. Phaco Foldables and Refractive Results Symposium. Alan S Crandall MD moderator. Sponsored by Alcon. Park City Utah

2005 Presidential Forum on Phaco: Zonular weakness. Challenge Cup Session. Manus Kraff MD moderator. Annual Meeting of the ASCRS, Washington DC

2005 Innovations in Glaucoma Surgery. Annual Wills Eye Hospital Glaucoma Symposium. St. John, Virgin Islands

2005 Pearls for a successful filter in combined cataract and glaucoma surgery. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2005 Phaco techniques. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2005 Subluxed crystalline lens – Iris sutured IOL. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2005 Complex cataract – IOL cases. Advances in Anterior Segment and Refractive Surgery. San Antonio TX

Participation in Symposia:-cont'd

2006 Iris sutured PC IOLs – Where are they now? UBM and Late term results. Phaco Foldables and Refractive Results. Park City Utah

2006 New Instrumentation in anterior segment surgery. Phaco Foldables and Refractive Results. Park City Utah

2006 Capsular Tension Segments for compromised zonules. Phaco Foldables and Refractive Results. Park City Utah

2006 IOL Malposition puzzlers. Phaco Foldables and Refractive Results. Park City Utah

2006 Iris sutured PC IOLs in the Absence of Capsule support. World Ophthalmology Congress. Sao Paulo Brazil

2006 Trabeculectomy Pearls: How I Do It. Annual Meeting of the American Glaucoma Society. Charleston SC

2006 Phaco / IOL in the Management of Acute Angle-Closure Glaucoma. 'Glaucoma Day' preceding the Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Peripheral Iris Fixation of Late In-the-bag IOLs. 'Glaucoma Day' preceding the Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 New Operating Issues. Hot Topics Symposium. ASCRS Glaucoma Clinical Committee. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Conjunctival Closure Techniques. Symposium: Innovations and Expertise in Practical Glaucoma Surgery. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Session Moderator: Glaucoma Techniques and Technology. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Francisco CA

2006 Glaucoma Surgery Update: Are Blebs Obsolete? 28th Annual Dallas Spring Ophthalmology Symposium, Dallas TX

Participation in Symposia:-cont'd

2006 Complicated Anterior Segment Surgical Problems: Dislocated IOL, Iris-Sutured IOL, Loose Zonles – A Video Potpourri. 28th Annual Dallas Spring Ophthalmology Symposium. Dallas TX

2006 Surgical Management of Uncontrolled Angle Closure Glaucoma. 28th Annual Dallas Spring Ophthalmology Symposium. Dallas TX

2006 Phacoemulsification in the Management of Acute Angle Closure Glaucoma. Memphis Eye Society Annual Convention. Memphis TN

2006 Iris Fixation of Foldable IOL's: Technique & Results. Memphis Eye Society Annual Convention. Memphis TN

2006 Complications & Innovations in Challenging Cataract and IOL Cases: A Video Potpourri. Memphis Eye Society Annual Convention. Memphis TN

2006 Late Lens Subluxation: Diagnosis and Management. Glaucoma 2006: Secrets of the Glaucoma Surgeon. New York, NY

2006 Nonpenetrating Trabeculectomy. Glaucoma 2006: Secrets of the Glaucoma Surgeon. New York, NY

2006 Iris Repair – Surgical Techniques. Invited Guest Speaker, Canadian Society of Ophthalmology Annual Meeting. Toronto Canada

2006 Iris Sutured IOLS – Surgical Technique. Invited Guest Speaker, Canadian Society of Ophthalmology Annual Meeting. Toronto Canada

2006 Iris Sutured IOLS – Results and Complications Update. Invited Guest Speaker, Canadian Society of Ophthalmology Annual Meeting. Toronto Canada

2006 A Perspective on Antimetabolites in Glaucoma Surgery. 29th Annual Midwest Glaucoma Symposium. Pittsburgh PA

2006 Surgical Complications in Glaucoma Surgery. Moderator. 29th Annual Midwest Glaucoma Symposium. Pittsburgh PA

2006 Conjunctival Closure Technique for Trabeculectomy. Annual Meeting of the American Glaucoma Society, Charleston SC

Participation in Symposia:-cont'd

2006 Innovations in Glaucoma Surgery – What's Hot? The Advances in Anterior Segment and Refractive Surgery. San Antonio TX

2006 Zonular Compromise – Support Options. The Advances in Anterior Segment and Refractive Surgery, San Antonio TX

2006 Late IOL / Bag Dislocation. The Advances in Anterior Segment and Refractive Surgery, San Antonio TX

2006 New Instrumentation in Anterior Segment Surgery. The Advances in Anterior Segment and Refractive Surgery, San Antonio TX

2007 "Newer Surgical Approaches to Zonular Weakness", Invited Guest Speaker, American College of Eye Surgeons/Society for Excellence in Eyecare. SEE Island/Quality Surgery XXI Seminar. Atlantis, Paradise Island, Bahamas.

2007 Cataract Surgery and Zonular Weakness in Pseudoexfoliation. Annual Meeting of the American Glaucoma Society, San Francisco CA

2007 Trabeculectomy – My Preferred Technique. "Glaucoma Day" preceding the Annual Meeting of the American Society of Cataract and Refractive Surgery. San Diego CA

2007 New Operating Issues. Hot Topics Symposium. ASCRS Glaucoma Clinical Committee. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Diego CA

2007 Zonular Problems in Glaucoma Patients. Symposium: Innovations and Expertise in Practical Glaucoma Surgery. Annual Meeting of the American Society of Cataract and Refractive Surgery. San Diego CA

2007 Modifying Cionni's Modified Capsular Tension Ring. Phaco Foldables and Refractive Results. Park City Utah

2007 Innovations in Glaucoma Surgery. Phaco Foldables and Refractive Results. Park City Utah

2007 Breaking Capsules Without Breaking Hearts. Phaco Foldables and Refractive Results. Park City Utah

Participation in Symposia:-cont'd

2007 Pearls for Managing the White Cataract. Phaco Foldables and Refractive Results. Park City Utah

2007 Avoiding and Managing Complications with Cataract Surgery in Pseudoexfoliation. Exfoliation Syndrome: Expanding Horizons. The 2007 Lindberg Symposium SOE, Vienna Austria, June 9-12, 2007. Joint Congress of SOE/AAO 2007 Vienna Austria

2007 Trabeculectomy: Avoiding Complications Glaucoma Subspecialty Day, November 10, 2007. New Orleans LA

2007 A Case for Individualized Patient Care – A Lesson from RJS. The Chandler Grant Glaucoma Society Annual Meeting. June 2007. Boston, MA

2007 Difficult Anterior Segment Surgery Cases. 35th Annual Alumni Meeting Ophthalmology 2007. SUNY Downstate Medical Center, Brooklyn NY

2008 "Phaco in the Management of Acute Angle Glaucoma" American College of Eye Surgeons / Society for Excellence in Ophthalmology Annual Meeting SEE Island / Quality Surgery XXII Seminar, San Juan Puerto Rico

2008 A Safer Trabeculectomy? – Beautifying a Dinosaur. New Techniques and Controversies in Cataract and Refractive Surgery. Park City Utah

2008 Cataract in Pseudoexfoliation – Early and Late Surgical Pearls. New Techniques and Controversies in Cataract and Refractive Surgery, Park City Utah

2008 The White Cataract – Keeping It Simple. New Techniques and Controversies in Cataract and Refractive Surgery. Park City Utah

2008 IOL Exchange – Making it Right. New Techniques and Controversies in Cataract and Refractive Surgery. Park City Utah

2008 "Contrary to Ordinary" Life Styles Symposium. Royal Hawaiian Eye Meeting, Kona Hawaii

2008 Conjunctiva Closure in Trabeculectomy, Glaucoma Video Symposium. Royal Hawaiian Eye Meeting, Kona Hawaii

Participation in Symposia:-cont'd

2008 New Aqueous Drainage Devices – Any Ready for Prime Time. Symposium on Glaucoma Drainage Devices. Moderators Jonathan Myers and David Greenfield. Annual Meeting American Glaucoma Society, Washington DC.

2008 Beautifying the Dinosaur: Improving on Trabeculectomy. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Making it Right: Pearls for IOL Exchange. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Moderator: Complications. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Pseudoexfoliation – My Favorite Mistake. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Tube Pearls. ASCRS Glaucoma Day. Annual Meeting of the American Society of Cataract and Refractive Surgery. Chicago IL.

2008 Laser Trabeculoplasty. Which Laser? Which Glaucoma Types? When to Perform? Subspecialty Day – Glaucoma. World Ophthalmology Congress 2008. Hong Kong China

2008 Sutured Intraocular Lenses in Glaucomatous Eyes. Glaucoma and Cataract Management. World Ophthalmology Congress 2008. Hong Kong China

2008 ESCRS Live Surgery, Toric Implant, Berlin Germany

2008 Angle Closure Glaucoma: Better Surgical Management, Phillips Eye Institute, 2008 Ophthalmology Nightmares Conference, Minneapolis MN

2008 Glaucoma Surgery: Early & Late Complications & Pearls, Phillips Eye Institute, 2008 Ophthalmology Nightmares Conference, Minneapolis MN

2008 Trabeculectomy – My Approach. Glaucoma Subspecialty Day. AAO, Atlanta GA

Participation in Symposia:-cont'd

2008 Spotlight on Glaucoma: The Medical and Surgical Care of the Glaucoma Patient – Practical and Proven Approaches. Moderator. AAO, Atlanta GA

2008 Spotlight on Glaucoma: Presenter: Late IOL Dislocation-The Real Deal. AAO, Atlanta GA

2008 Academy Café: Glaucoma. Moderator. AAO, Atlanta GA

2008 Spotlight on Cataract Surgery: Cataract Complications – Video Case Studies: Why? What Now? How? IOL in Absence of Capsule Support – Posterior Chamber Technique. AAO, Atlanta GA

2008 Up Close and Personal: Hobbies of Leading Ophthalmologists (formerly Lifestyles Symposium). AAO, Atlanta GA

2009 Glaucoma Mid-Winter Symposium 2009, Miami Meltdown: The Glaucoma International Hockey Cup. 1st Period: Decision Making in Glaucoma; 2nd Period: Glaucoma Treatment; 3rd Period: Pearls and the Future of Glaucoma. Miami FL

2009 Glaucoma Surgery 2009: New Twists Techniques and Results. Park City UT

2009 "Alley Oop" for a Dislocated IOL. Park City UT

2009 Late IOL Dislocation: The Real Deal. Park City UT

2009 An Ugly Case Scenario. Park City UT

2009 Late IOL Dislocation-The Real Deal. Caribbean Eye 2009. ACES/SEE Jamaica

2009 Phaco and Acute Angle Closure Glaucoma. Caribbean Eye 2009. ACES/SEE Jamaica

2009 Complications Avoidance & Management: Video Case Presentations, Moderator. ASCRS Glaucoma Day, San Francisco CA

Participation in Symposia:-cont'd

2009 Tube Malpositioned in Visual Axis. ASCRS Glaucoma Day, San Francisco CA

2009 Acute Angle Closure – Better Surgical Management. Speaker, Cape Cod MA

2009 Late IOL Dislocation – The Real Deal. Speaker, Cape Cod MA

2009 Exfoliation Syndrome and Exfoliative Glaucoma (Presenter), "Cataract Surgery in Exfoliation Syndrome". World Glaucoma Congress, Boston MA

2009 Video Session Glaucoma Surgery (Presenter), "Trabectome". World Glaucoma Congress, Boston MA

2009 WGA-ASCRS Video Session Glaucoma & Cataract (Presenter), "Late IOL Dislocation: The Real Deal". World Glaucoma Congress, Boston MA

2009 Angle Closure Glaucoma – A New Era of Effective Surgical Therapy. Western University, London Canada

2009 Cataract Surgical Challenges in Pseudoexfoliation Syndrome. OSN New York Symposium

2009 "Trabs and Tubes – Let's Raise the Bar?" Surgical Glaucoma. OSN New York Symposium

2009 Glaucoma: New Surgical Options in Glaucoma. Chicago Ophthalmic Symposium: Prepare for 2010

2009 Complications and Challenging Cases, New Tricks and New Instrumentation: Video Presentations: IOL ExChange and Dislocated IOL – Fix It to the Iris. Chicago Ophthalmic Symposium: Prepare for 2010

2010 What's New in Glaucoma Surgery? From Trabs to tubes to Canaloplasty and More. Park City UT

2010 IOL Exchange – Things You Should Know. Park City UT

2010 Traumatic Cataract. Park City UT

2010 Posterior Polar Cataract. Park City UT

2010 Things to Put in the Bag: IOL's, Ring, and Segments. Faculty. Stephen S. Lane, MD Moderator. ASCRS Winter Update, Cancun Mexico

Participation in Symposia:-cont'd

2010 Surviving Disaster: Practical Approaches to Deal with Anterior Segment Complications and Challenges. Faculty. Stephen S. Lane, MD Moderator. ASCRS Winter Update, Cancun Mexico

2010 Surgical Management of Angle-Closure Glaucoma. Garry P. Condon MD and Robert D. Fechter MD Moderators. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Is Gonioscopy Enough? Point-Counter-Point. Surgical Management of Angle-Closure Glaucoma. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Techniques for Cataract Surgery in the Angle Closure Eye with a Shallow Chamber. Surgical Management of Angle-Closure Glaucoma. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Peer to Peer Discussion on the ExPRess Mini Shunt. AGS-ASCRS Joint Symposium. American Glaucoma Society, Naples FL

2010 Eye World Education, Surgical Innovations to Optimize Glaucoma Treatment, Program Chair, "2010 Trab: Re-call or Tune-up?" ASCRS, Boston MA

2010 "Where Are We with Laser Trabeculoplasty in 2010?" ASCRS Glaucoma Day. Annual Meeting of the ASCRS. Boston MA

2010 "Complications Avoidance & Management," Video Case Presentation. ASCRS Glaucoma Day. Annual Meeting of the ASCRS. Boston MA

2010 "Techniques for Cataract Surgery in the Eye with a Shallow Chamber." Annual Meeting of the ASCRS. Boston MA

2010 Glaucoma Cataract Conference Main Speaker. University of Louisville KY

2010 Phaco to Better Manage Acute Angle Closure. Atlantic Eye Symposium. Halifax Nova Scotia

Participation in Symposia:-cont'd

2010 Pseudoexfoliation – Zonule Compromise and Counter Measures. Atlantic Eye Symposium. Halifax Nova Scotia

2010 Alcon's Live Surgery, Panelist. AAO. Chicago IL

2010 "Managing Complications of the Ex-PRESS." Subspecialty Day / Glaucoma 2010. AAO. Chicago IL

2010 Panel Discussion. AAO Cataract Spotlight Symposium AAO. Chicago IL

2010 Late Breakers Symposium. Chair AAO. Chicago IL

2010 Glaucoma Management:: Current and Future Treatment Options / Alcon. Miami Ophthalmic Symposium – Nurse & Technician Sessions. Miami FL

2010 Zonular Compromise / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 Q&A Panel / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 Video Symposium of IOL Malposition – Etiology & Treatment with Panel / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 IOL Repositioning / Alcon. Miami Ophthalmic Symposium. Miami FL

2010 Glaucoma Surgery Update / Alcon. Miami Ophthalmic Symposium. Miami FL

2011 UGH! Single-Piece IOL Malposition. Getting the Red Out. Park City UT

2011 Update on Iris Fixation Technique, Video. Problem: Too Much Light. Park City UT

2011 "Post Traumatic Anterior Segment Reconstruct." Park City UT

2011 Trabeculectomy 2011 – Is There Still a Role? Park City UT

2011 Master the Shallow AC…In a Single Stroke, 3 Videos. Pressure Rising…Losing Support. Park City UT

2011 Challenging IOL Dislocation Dilemmas. Park City UT

2011 Toric IOLs in Glaucoma Patients. Park City UT

Participation in Symposia:-cont'd

2011 Zonule Compromise: New "Stuff" to Put in the Bag. Snowmass Ophthalmology Conference. Snowmass UT

2011 Breakfast with the Experts – Conjuntival Closure. American Glaucoma Society 21st Annual Meeting. Dana Point CA

2011 National Master Club: "Don't Ice the Trab." / Alcon Canada. Scottsdale AZ

2011 Case Presentations & Panel Discussion. Using Imaging Technology in the Real World. ASCRS. San Diego CA

2011 Into the Abyss and Back: Video Complications – Steps to Return from the Unknown. ASCRS. San Diego CA

2011 Ex-PRESS Glaucoma Filtration Device: Techniques and Pearls from the Experts. ASCRS. San Diego CA

2011 Acute Angle Closure Glaucoma: Better Surgical Management. 29th Annual Meeting-Update for the Comprehensive Ophthalmologist. Case Western Reserve University. Cleveland OH

2011 UGH? A Problematic Single-Piece IOL Syndrome. Kiawah 2011 Eye. Kiawah Island SC

2011 ExPRESS Glaucoma Filtration Device: Techniques and Pearls from the Experts / AAO Dinner Symposium. "Is Traditional Trabeculectomy Still Our Best Surgical Option?" AAO, Orlando FL

2011 Annual Meeting: Panelist. AAO, Orlando FL

2011 Spotlight on Cataract Complications: M&M Rounds – Learning From My Mistakes / AAO, Orlando FL

2011 Dealing With the Traumatic Cataract – It Hurts Just to Think of It. Chicago Ophthalmic Symposium, Chicago IL

2011 Why Am I Still Doing Trabs? All the New Hardware in Glaucoma Surgery. Chicago Ophthalmic Symposium, Chicago IL

2011 UGH! Chicago Ophthalmic Symposium, Chicago IL

Participation in Symposia:-cont'd

2011 Complications and Challenging Cases, New Tricks and New Instrumentation: My Favorite Case of the Year. Video Presentation. Chicago Ophthalmic Symposium, Chicago IL

2011 Update on Glaucoma. ASORN Ophthalmic Symposium: Prepare for 2012, Chicago IL

2012 Traumatic Cataracts-New Technology for Better Results. Park City Utah

2012 A Positive Spin on the Negative and Other Dark Shadows. Evening Video Session. Park City Utah

2012 Complex Cataract Case Video. Park City Utah

2012 Can't Take the Pressure, Make My IOL Work, Moderator – Glaucoma Surgery 2012. Park City Utah

2012 Negative Spin on the Positive Shadow of Doubt & Positive Gain. Park City Utah

2012 Complex Glaucoma Case Video. Park City Utah

2012 New Variations for Late IOL Dislocation. Park City Utah

2012 Glaucoma Grand Rounds: FACE OFF! Faculty. ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Traditional Trabeculectomy: Still the Gold Standard?" Breakfast Symposium / Alcon, ASCRS Chicago IL

2012 Glaucoma Surgery: Advances You and Your Patients Will Appreciate, Moderator. Alcon ASCRS, Chicago IL

2012 Surgical Glaucoma Spotlight: Novel and Traditional, Co-Moderator. ASCRS Glaucoma Day 2012. Chicago IL

2012 Meanwhile, Refining the Time Tested...Doing What We Really Do...Better. Introduction ASCRS Glaucoma Day 2012. Chicago IL

2012 Eye World Corporate Mornings Program / MST. ASCRS 2012. Chicago IL

Participation in Symposia:-cont'd

2012 Iris Suture Repair and IOL Fixation. ASCRS Glaucoma Day 2012. Chicago IL

2012 Pseudoexfoliation from A-Z. ASCRS Glaucoma Day 2012. Chicago IL

2012 Saving the Day: Falling One-Piece and 3-Piece IOLs. ASCRS Glaucoma Day 2012. Chicago IL

2012 ASCRS Town Hall: Glaucoma, Moderator. ASCRS, Chicago IL

2012 Intraocular Lens Exchange and Repositioning Techniques. ASCRS, Chicago IL

2012 Surgical Glaucoma, Faculty. Kiawah Eye 2012, Charleston SC

2012 Glaucoma Management: The New Era. Program Moderator / Alcon. Chicago IL

2012 Trabeculectomy 2012: Is There Still a Role? Loyola 5th Annual glaucoma Cataract Symposium, Chicago IL

2012 Acute Angle Closure Glaucoma: Better Surgical Management? Loyola 5th Annual Glaucoma Cataract Symposium, Chicago IL

2012 Glaucoma Case Presentations with Panel Discussion. Loyola 5th Annual Glaucoma Cataract Symposium, Chicago IL

2012 ExPRESS Glaucoma Management: The New Era. Alcon, Washington DC

2012 Surgical Approaches for Coexisting Cataract and Glaucoma. Vindico, Faculty Member CME Symposium, AAO, Chicago IL

2012 OSN New York 2012, Participation as a Faculty Member. Slack Incorporated, New York City NY

2012 Challenging Glaucoma Treatment Dilemmas, Chicago Ophthalmic Symposium, Chicago IL

2012 Glaucoma Surgical Update, Chicago Ophthalmic Symposium, Chicago IL

Participation in Symposia:-cont'd

2012 Simplifying In-Bag IOL Dislocation and CTR/Management of Malpositioned IOLs, Chicago Ophthalmic Symposium, Chicago IL

2012 Complications and Challenging Cases, New Tricks and New Instrumentation: My Favorite case of the Year. Video Presentations. Jobson, Chicago Ophthalmic Symposium, Chicago IL

2013 "Glaucoma Dilemmas I." Cornea/Glaucoma. Park City Utah

2013 "Pseudoexfoliation Caveats and Controversies." Cataract Techniques. Park City Utah

2013 "What Not to Do, What Not to Do Next, and Then What Not to Do After That." Video Session. Park City Utah

2013 "Glaucoma Dilemmas II." Glaucoma/Complex Cases. Park City Utah

2013 "Cataract "Plus" for the Glaucoma Patient: Who's on Board?" Glaucoma/Complex Cases. Park City Utah

2013 "IOL Exchange...and Exchange." Video Session. Park City Utah

2013 "Subluxed IOL: Tweaking Your Technique." Video Session. Park City Utah

2013 "Zonule Compromise and Counter Measures." Controversies in Ophthalmology. 81st Midwinter Conference. Los Angeles CA

2013 "The Cataract Surgeon's Options to Help Control Glaucoma." Controversies in Ophthalmology. 81st Midwinter Conference. Los Angeles CA

2013 "Acute Angle Closure – Better Surgical Management." Controversies in Ophthalmology. 81st Midwinter Conference. Los Angeles CA

2013 "The Cataract Surgeon's Options to Help Control Glaucoma." Glaucoma and Cataract Visiting Professor Dinner. University of Manitoba, Winnipeg Canada

Participation in Symposia:-cont'd

2013 "Glaucoma Case Dilemmas – What Can We Learn?" Glaucoma and Cataract Visiting Professor Morning. University of Manitoba, Winnipeg Canada

2013 "Acute Angle Closure – Better Surgical Management." Glaucoma and Cataract Visiting Professor Morning. University of Manitoba, Winnipeg Canada

2013 Cataract Surgery: Techniques and Technology Updates – Phaco the Rock: My Take. National Master Club. San Diego CA

2013 Cataract Surgery: Challenging Cases – What not to do, and what not to do next.....National Master Club. San Diego CA

2013 Glaucoma Update: Surgical and Medical – Cataracts and Glaucoma. National Master Club. San Diego CA

2013 Glaucoma Update: Surgical and Medical – Pseudoexfoliation Surgical Issues. National Master Club. San Diego CA

2013 Glaucoma Update: Surgical and Medical – ACG Case. National Master Club. San Diego CA

2013 Surgical Glaucoma Spotlight: Part III – Back to Basics. "Fornix-based Closure." ASCRS Glaucoma Day. San Francisco CA

2013 Angle Closure Symposium: A to Z – Co-Moderator, ASCRS Glaucoma Clinical Committee. San Francisco CA

2013 Angle Closure Symposium: A to Z – Speaker, "Aqueous Misdirection or Malignant Glaucoma and other Challenges." ASCRS Glaucoma Clinical Committee. San Francisco CA

2013 From Good to Great: Surgical Pearls – Faculty, Panelist (Video-Based Section), Kiawah 2013 Eye. Kiawah Island SC

2013 Glaucoma – Panelist, Kiawah 2013 Eye. Kiawah Island SC

Participation in Symposia:-cont'd

2013 "Out of MIND, Out of SIGHT: Avoiding the Dire Consequences of Non-adherence to Glaucoma Therapy" – VINDICO Medical Education. Faculty Member for a CME Symposium, Kiawah 2013 Eye. Kiawah Island SC

2013 "Advancing Filtration Surgery: Surgical Pearls and Clinical Benefits" – Program Moderator / Alcon. Boston MA

2013 "Managing Compromised Zonules" – OSN New York, Waldorf Astoria. New York NY

2013 "Does This Patient Need Glaucoma Surgery?" – OSN New York, Waldorf Astoria. New York NY

2013 Case Conference, Panelist – OSN New York, Waldorf Astoria. New York NY

2013 Hot Topics in Glaucoma, Panelist – OSN New York, Waldorf Astoria. New York NY

2013 Glaucoma 2013: "The Future is Now" – Panelist. AAO New Orleans LA

2013 Cataract Poster Tour Leader. Symposia Chair. AAO New Orleans LA

2014 "Refining Late In-the-bag IOL Positioning." Reaching New Peaks 2014. Park City Utah

2014 "MITS" (Minimally Invasive Trabeculectomy Surgery). Reaching New Peaks 2014. Park City Utah

2014 "Stress Free Phaco In Pseudoexfoliation." Reaching New Peaks 2014. Park City Utah

2014 "The Girl, the Ring, Everything." Video. Reaching New Peaks 2014. Park City Utah

2014 "Video Symposium of Challenging Cases and Complications Management During Cataract Surgery." Faculty, Case Presentation. ASCRS ASOA Winter Update 2014. Fajardo Puerto Rico

2014 "What's New in Technology." Faculty, Case Presentation. ASCRS ASOA Winter Update 2014. Fajardo Puerto Rico

Participation in Symposia:-cont'd

2014 "Rapid F-Eye-R: You Make the Call." Faculty. ASCRS ASOA Winter Update 2014. Fajardo Puerto Rico

2014 "Café Style Discussion: 10 Years Down the Road – What's Still on the "To-do" List." Moderator. ASCRS Glaucoma Day 2014. Boston MA

2014 "Dislocated IOL in Glaucoma Patient." Glaucoma Lead. ASCRS Glaucoma/Retina Joint Symposium. Boston MA

2014 Paper Session – Title: 3-K Glaucoma. Moderator. ASCRS ASOA. Boston MA

2014 "Cataract Surgery in Pseudoexfoliation Syndrome." Symposium, Managing Refractive Issues in Glaucoma Patients. ASCRS ASOA. Boston MA

2014 "Express Glaucoma Surgery." Kiawah 2014 Eye. Kiawah Island SC

2014 "Small Pupil Surgery." Kiawah 2014 Eye. Kiawah Island SC

2014 "The Dislocated IOL: New Frontiers." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "MIGS: Update for Cataract Surgeons." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Pseudoexfoliation: Something for Everyone." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Traumatic Cataract: Stay in Control." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Glaucoma Dilemmas." (interactive). 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 ""MITS: Minimizing the Invasiveness of Transscleral Glaucoma Surgery." 67th Annual Meeting and National Scientific Meeting. White Sulphur Springs WV

2014 "Refined Approaches to IOL Dislocation." Cataracts / New Technology. Winter Ophthalmic Symposium. New York City NY

Participation in Symposia:-cont'd

2014 "Surviving Pseudoexfoliation." Glaucoma. Winter Ophthalmic Symposium New York City NY

2014 "MIGS – Are We There Yet?" Glaucoma. Winter Ophthalmic Symposium New York City NY

2014 "You Make the Call" (Intraoperative Management Challenges). Video Presentations: Complications // Challenging Cases // Pearls. Winter Ophthalmic Symposium. New York City NY

2014 Cataracts / New Technology. Faculty. Winter Ophthalmic Symposium. New York City NY

2014 Choices of IOLs in Current Cataract Surgery – How I do It..... Faculty. Winter Ophthalmic Symposium. New York City NY

2015 "MIGS": Are We There Yet? It's Time to Wake UP...and Bring the Pressure Down. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "You Make the Call." Glaucoma Panel. It's Time to Wake Up...and Bring the Pressure Down. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "Posterior Polar – a Backward View." Moderator Video Session. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "Surviving Pseudoexfoliation." Fun with Femto and Phaco. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "You Make the Call." Video Session. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "Refined Approaches to IOL Dislocation." ...And It's Just That Easy. 2015 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2015 "The Surgical Management of Primary and Secondary Pigment Dispersion Glaucoma." (Similarities and Differences from Poag) Video Case Studies. ASCRS Glaucoma Day 2015. San Diego CA

Participation in Symposia:-cont'd

2015 Café Style Discussion: Medical Management of Glaucoma-Best Practices When the Real World Gets in the Way. Moderator. ASCRS Glaucoma Day 2015. San Diego CA

2015 "Complications and a "Reay of Hope." Video Case. Moderator. ASCRS Glaucoma Day 2015. San Diego CA

2015 "Glaucoma Dilemmas." Faculty. Kiawah Eye 2015. Charleston SC

2015 "Posterior Polar Cataract – Do's and Don'ts." Challenges in Cataract Surgery. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "IOL Dislocation." Postoperative Care and Complications. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "MIGS." Glaucoma and Other Challenges. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "The Broken Pupil." Glaucoma and Other Challenges. 2015 Winter Ophthalmic Symposium. New York City NY

2015 "Tougher Than the Rest – Ultimate IOL Repositioning." Video Presentation 2015 Winter Ophthalmic Symposium. New York City NY

2016 "MIGS": 101 – More on Getting It Right. When You Just Can't Take the Pressure. 2016 Innovative Techniques & Controversies in Ophthalmology Park City UT

2016 "You Make the Call." Glaucoma Panel. When You Just Can't Take the Pressure. 2016 Innovative Techniques & Controversies in Ophthalmology. Park City UT

2016 Video Session. Moderator. 2016 Innovative Techniques & Controversies in Ophthalmology. Park City UT

2016 "IOL Dislocation – Newer Tricks." Making Lemonade from Lemons - Challenging Cases and Help from New Technology. 2016 Innovative Techniques & Controversies in Ophthalmology. Park City Utah

2016 "Tougher than the Rest." Video Session. All Things IOL's – "Let Me Count the Ways." 2016 Innovative Techniques & Controversies in Ophthalmology Park City Utah

Participation in Symposia:-cont'd

2016 "My Leak-Proof Closure #1." Surgical Faceoff: Let Me Show You How to Do It Better. Surgery Day. American Glaucoma Society 2016 Annual Meeting. Fort Lauderdale FL

2016 Café Style Discussion: EHR Moderator. Glaucoma Day. ASCRS ASOA New Orleans LA

2016 Complications and a "Reay of Hope," Moderator, Video Case. Glaucoma Day. ASCRS ASOA. New Orleans LA

2016 Glaucoma: MIGS. ASCRS Paper Session. Moderator. ASCRS ASOA New Orleans LA

2016 Intraluminal Nd: YAG Treatment of Patients with an IOP Rise After Glaucoma Device Implantation. Paper Sessions. ASCRS ASOA New Orleans LA

2016 MIGS: How to Incorporate Safer Surgery–Technique, Patient Selection and Enhanced Patient Outcomes. Panelist. ASCRS ASOA. New Orleans LA

2016 Stepping Up Your Game: Going from Good to Great: Pearls to Use in Your Practice. Dislocated IOL? New Strings Attached. Kiawah Eye 2016. Kiawah Island SC

2016 Glaucoma, Moderator. Kiawah Eye 2016. Kiawah Island SC

2016 Newer Tricks for Intraocular Lens Dislocation in Exfoliation. Kiawah Eye 2016. Kiawah Island SC

2016 Glaucoma, Video Case Presentation. Kiawah Eye 2016. Kiawah Island SC

2017 "Glaucoma Meds – New Targets and Modes." 2017 Surgical Summit. Park City Utah

2017 "How and When to Use a Trabecular Meshwork Stent." 2017 Surgical Summit. Park City Utah

2017 "New MIGS Options." 2017 Surgical Summit. Park City Utah

Participation in Symposia:-cont'd

2017 Roundtable: "Glaucoma Surgery: Sorting Out Options for the Comprehensive Ophthalmologist." Moderator. 2017 Surgical Summit. Park City Utah

2017 General Session: Video Triumphs and Tragedies I. "Fixation Frustration." 2017 Surgical Summit. Park City Utah

2017 General Session: IOLs: New Advances, Same Old Problems. "Dislocated IOLs – Hoops and Loops." 2017 Surgical Summit. Park City Utah

2017 General Session: Video Triumphs and Tragedies II. "Surprise Package." 2017 Surgical Summit. Park City Utah

2017 Café Style Discussion. Moderator. ASCRS Glaucoma Day. Los Angeles CA

2017 Video Case Presentations: Complications and a "Reay of Hope." Panelist. ASCRS Glaucoma Day. Los Angeles CA

2017 Suture Fixation: Is There Something Better. Kiawah Eye 2017. Kiawah Island SC

2017 Glaucoma iStent For Me: When and How. Kiawah Eye 2017. Kiawah Island SC

2017 Glaucoma Pseudoexfoliation IOL Dislocation: Evolving Fixation Surgery. Kiawah Eye 2017. Kiawah Island SC

2017 Fixation Frustration. Kiawah Eye 2017. Kiawah Island SC

2017 Hot Topics in Glaucoma Case Presentation. Kiawah Eye 2017. Kiawah Island SC

2017 "Posterior Polar: Do's & Don'ts." 16 Annual Downeast Ophthalmology Symposium – Practical Solutions in Ophthalmology. Bar Harbor ME

2017 "Late IOL Dislocation: Evolving Fixation Surgery." 16th Annual Downeast Ophthalmology Symposium – Practical Solutions in Ophthalmology. Bar Harbor ME

Participation in Symposia:-cont'd

2017 "Surgical Triumphs and Tragedies: A Video Potpourri." (with Dr. Ayres) 16th Annual Downeast Ophthalmology Symposium – Practical Solutions in Ophthalmology. Bar Harbor ME

Advisory Boards:

2010 Allergan Surgical Innovations Advisory Board Meeting. Phoenix AZ

2010 Glaucoma Management: The Next Era. Glaucoma Advisory Board Meeting / Incision. Chicago IL

2010 New Techniques in Outflow Surgery: Overview and Current Limitations. New Directions in the Surgical Management of Glaucoma / Allergan. San Francisco CA

2010 Internal (Canal) Shunts. New Directions in the Surgical Management of Glaucoma / Allergan. San Francisco CA

2010 Closure Technique / Alcon. Glaucoma Management: The Next Era. Dallas TX

2010 Glaucoma and the Toric IOL / Alcon. Glaucoma Management: The Next Era. Dallas TX

2010 Panel Discussion / Alcon. Glaucoma Management: The Next Era. Dallas TX

2011 Glaucoma Management: The New Era Educational Program / Alcon. Fort Lauderdale FL

2011 Glaucoma and the Toric IOL. Glaucoma Management: The New Era / Alcon. Toronto Canada

2011 Panel Discussion. Glaucoma Management: The New Era / Alcon. Toronto Canada

2011 Roundtable Breakout Discussions: Ex-PRESS Glaucoma Filtration Device. Yellow Group. Glaucoma Management: The New Era / Alcon. Toronto Canada

Advisory Boards:-cont'd

2011 Glaucoma Surgery Advisory Board. Alcon. AAO, Orlando FL

2011 Improving Predictability in Filtration Surgery – ExPRESS Glaucoma Filtration Device Breakfast. Speakers Lecture – ExPRESS Latin American Ad Board with Vital Costa. AAO, Orlando FL

2011 Allergan Glaucoma Vision for the Future Advisory Board Meeting. New York City NY

2012 Advanced Glaucoma Surgery Advisory Council. Alcon, Philadelphia PA

2012 Glaucoma Today Editorial Advisory Board. AAO, Chicago IL

2012 Rescula Regional Advisory Board, SUCAMPO Pharma Americas, LLC. Philadelphia PA

2013 Participation at Alcon's Glaucoma Speaker Training. Dallas TX

2015 Participation at Alcon's Glaucoma Speaker Training. Coral Gable FL

2015 Alcon Glaucoma Advisory Summit. Boston MA

2015 Roundtable Advisory Session and NIBR Tour. Novartis Institute of Bio/ Medical Research

2016 Allergan Round Table Discussion. ASCRS ASOA. New Orleans LA

2016 Allergan XEN 45 Advisory Board Meeting. ASCRS ASOA. New Orleans LA

2016 Alcon Advisory Meeting – Engage to Further Alcon's Mission: New Ways to Enhance Sight and Improve People's Lives. Fort Worth TX

2017 Hydrus Advisory Panel Meeting. Ivantis Inc. ASCRS. Los Angeles CA

2017 Alcon Surgical Glaucoma Team, Express Advisory Board. ASCRS ASOA Los Angeles CA

2017 Georgia Ophthalmology Society Annual Meeting. Keynote speaker, Pseudoexfoliation, Complex Cataract Surgery. Amelia Island, FL

2019 North Carolina Eye Society Annual Meeting. Keynote speaker, Pseudoexfoliation, Complex Cataract Surgery, Malignant Glaucoma. Asheville, NC

Instruction Courses:

1987 "Contemporary Glaucoma", Course director Richard J. Simmons. American Academy of Ophthalmology Annual Meeting, Dallas, TX

1987 "Practical Aspects of Photocoagulation", Course Instructor, Massachusetts Eye and Ear Infirmary, Boston, MA

1988 "Solving Glaucoma Problems", Course Instructor, Massachusetts Eye and Ear Infirmary, Boston, MA

1992 "Filtering Surgery in Conjunction with Cataract Surgery, Use of Mitomycin", Advanced Phacoemulsification Course (Alcon Surgical), Chicago, IL

1993 "Co-existent Cataract and Glaucoma - Options and Incisions", Advanced Phacoemulsification Course, (Alcon Surgical), Philadelphia, PA

1993 "Special Considerations in Combined Surgery - Antimetabolites", Advanced Phacoemulsification Course, (Alcon Surgical), Philadelphia, PA

1994 "Options, Incisions and Pearls for Managing Coexistent Glaucoma and Cataract", Course Director, American Academy of Ophthalmology Annual Meeting, San Francisco, CA

1995 "Options, Incisions, and Pearls for Managing Coexistent Glaucoma and Cataract", Course Director, American Academy of Ophthalmology Annual Meeting, Atlanta, GA

1996 "Options, Incisions and Pearls for Managing Coexistent Glaucoma and Cataract", Course Director, American Academy of Ophthalmology Annual Meeting, Chicago, IL

1996 "Advanced Phacoemulsification and PhacoRefractive Results", Faculty, Sponsored by Alcon Surgical, Rochester, NY

1997 "Advanced Concepts in Phacoemulsification", Faculty, Alcon Surgical Ophthalmic Symposium, Baltimore, MD

1997 Glaucoma Surgical Skills Transfer Course. Course director George Cioffi. American Academy of Ophthalmology Annual Meeting, San Francisco CA

1998 "Advanced Concepts in Phacoemulsification", Faculty, Alcon Surgical Ophthalmic Symposium, Chicago IL

Instruction Courses:-cont'd

1999 Phacoemulsfication in the Previously Filtered Eye, Sponsored by Alcon Surgical, San Antonio, TX

1999 Glaucoma Surgery – New Trends & New Complications, Sponsored by Alcon Surgical, San Antonio, TX

2001 Diagnosis and management of non-infectious epiphora. Course director Kim Cockerham. Annual Meeting of the American Academy of Ophthalmology, New Orleans LA

2002 Advanced Concepts in Anterior Segment Surgeries. Course director Stephen Lane. San Antonio TX

2002 Hypotony got you down? Effective surgical management of late bleb-related hypotony. Course director. Annual Meeting of the American Academy of Ophthalmology, Orlando FL

2002 Diagnosis and management of non-infectious epiphora. Course director Kim Cockerham. Annual Meeting of the American Academy of Ophthalmology, Orlando FL

2002 Managing the patient with both cataract and glaucoma. Course directors Sam Masket and Alan Crandall. Annual Meeting of the American Academy of Ophthalmology, Orlando FL

2003 Phaco Foldables and Refractive Results. Course director Alan Crandall. Park City UT

2003 The McCannel Suture revisited – Applications in managing IOL complications and aphakia. Course director. Annual meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2003 UPMC Annual Resident Phacoemulsification Course – Faculty

2003 Hypotony got you down? Effective surgical management of late bleb-related hypotony. Course director. Annual Meeting of the American Academy of Ophthalmology, Anaheim CA

2003 Managing the patient with both cataract and glaucoma. Course directors Sam Masket and Alan Crandall. Annual Meeting of the American Academy of Ophthalmology, Anaheim CA

Instruction Courses:-cont'd

2004 Phaco Foldables and Refractive Results. Course director Alan Crandall. Park City UT

2004 Postoperative IOL dislocation and decentration management. Ike Ahmed MD Course director. Annual Meeting of the ASCRS, San Diego CA

2004 McCannel's Suture and Iris Support: Solving Aphakia and IOL Dislocation. Course director. Annual Meeting of the ASCRS. San Diego CA

2004 Managing the Patient with Both Cataract and Glaucoma. Sam Masket MD and Alan Crandall MD course directors. Annual meeting of the AAO, New Orleans LA

2004 Hypotony Got You Down? Effective Surgical Therapy for Late Post Filtration Hypotony. Course director. Annual Meeting of the AAO, New Orleans LA

2005 Innovations in Iris Fixation: Solving Aphakia and IOL Dislocation. Course director. Annual Meeting of the ASCRS, Washington DC

2005 Postoperative IOL dislocation and Decentration. Ike Ahmed MD, Course director. Annual Meeting of the ASCRS, Washington DC

2005 Effective Surgical Therapy for Late Post-Filtration Hypotony. Annual Meeting of the AAO, Chicago IL

2005 Combined Phaco and Glaucoma Surgery. Annual Meeting of the AAO, Chicago IL

2005 Glaucoma filtration surgery for residents. (skills transfer) Annual meeting of the AAO, Chicago IL

2006 Innovations in Iris Fixation: Solving Aphakia and IOL dislocation. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2006 Postoperative IOL Dislocation and Decentration Management. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

Instruction Courses:-cont'd

2006 Capsular Tension Rings. (skills transfer) Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2006 Iris Abnormalities: Techniques and Devices for Surgical Reconstruction. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Francisco CA

2006 Glaucoma Filtration Surgery for Residents. (Skills Transfer) Annual Meeting of the AAO, Las Vegas NV

2006 Combined Phaco and Glaucoma Surgery. Annual Meeting of the AAO, Las Vegas NV

2006 The Ultimate Guide to Capsular Tension Ring Use. Annual Meeting of the AAO, Las Vegas NV

2007 Capsular Tension Rings and Techniques for Capsular-Zonular Stabilization. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego CA

2007 Postoperative IOL Dislocation and Decentration Management. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego CA

2007 Innovations in Iris Fixation: Solving Aphakia and IOL Dislocation. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego, CA

2007 Capsular Tension Rings. Laboratory Skills Transfer Course. Annual Meeting of the American Society of Cataract and Refractive Surgery, San Diego CA

2007 "IOL Fixation in the Absence of Capsule Support". Advanced Phacoemulsification. Course Director William Fishkind. AAO, New Orleans LA

2007 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support. AAO, New Orleans LA

Instruction Courses:-cont'd

2007 Combined Phaco and Glaucoma Surgery. Course Directors Sam Masket and Alan Cradall. AAO, New Orleans LA

2007 Advanced Phacoemulsification (Wet Lab). AAO, New Orleans LA

2007 Combined Phaco and Glaucoma Surgery (Wet Lab). AAO, New Orleans LA

2007 Glaucoma Filtration Surgery (Wet Lab) for Ophthalmology Residents. AAO, New Orleans LA

2008 Management of Malpositioned IOL's. Course Director Alan Crandall. Annual Meeting of the American Society of Cataract and Refractive Surgery.

2008 Advanced Phacoemulsification – Iris Suture IOL. AAO, Atlanta GA

2008 Advanced Phacoemulsification (Lab). AAO, Atlanta GA

2008 Glaucoma Filtration Surgery Lab for Ophthalmology Residents. AAO, Atlanta GA

2008 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support. Co-Instructor. AAO, Atlanta GA

2008 Combined Phaco and Glaucoma Surgery – Phaco for Acute Angle Closure. AAO, Atlanta GA

2008 Combined Phaco and Glaucoma Surgery (Lab). AAO, Atlanta GA

2009 Phaco for Acute Angle-Closure Glaucoma. Annual Course - Current Concepts in Ophthalmology, Vail CO

2009 Zonule Complexities and Counter Measures. Annual Course – Current Concepts in Ophthalmology, Vail CO

2009 IOL Exchange – Things You Should Know. Annual Course – Current Concepts in Ophthalmology, Vail CO

2009 Advanced Phacoemulsification, Instructor. AAO, San Francisco CA

2009 Anterior Segment Surgical Challenges, Panelist. AAO, San Francisco CA

Instruction Courses:-cont'd

2009 Combined Phaco and Glaucoma Surgery. Phaco for Managing Angle Closure Glaucoma, Instructor. AAO, San Francisco CA

2009 Academy Café: Glaucoma Chair. AAO, San Francisco CA

2009 Glaucoma Filtration Surgery Lab for Ophthalmology Residents, Instructor. AAO, San Francisco CA

2009 Spotlight on Pseudoexfoliation: New Pearls from Glaucoma and Cataract Experts, Presenter. Advances in Glaucoma Surgery: Any Help in Pseudoexfoliation? AAO, San Francisco CA

2009 Innovative Approach to Iris Fixation of an IOL Without Capsular Support, Instructor. AAO, San Francisco CA

2010 Intraocular Lens Exchange and Repositioning Techniques, ASCRS Course Faculty. Annual Meeting of the American Society of Cataract and Refractive Surgery. Boston MA

2010 Glaucoma Management: ExPRESS Glaucoma Mini-Shunt Training / Incision. Chicago IL

2010 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction Skills Transfer Course. Suture Fixation of IOLS. AAO, Chicago IL

2010 Advanced Phacoemulsification LAB162C, Instructor. AAO, Chicago IL

2010 An Innovative Approach to Iris Fixation of an IOL Capsular Support: Hands On and Practical, Instructor. AAO, Chicago IL

2011 Hanging It on the Iris: Suture Solutions to Anterior Segment Enigmas. ASCRS-ASOA. San Diego CA

2011 Intraocular Lens Exchange and Repositioning Techniques. ASCRS. San Diego CA

2011 Iris Repair Technique (Siepser). ASCRS. San Diego

2011 Dislocated IOL's. ASCRS. San Diego

Instruction Courses:-cont'd

2011 ExPRESS Training Meeting / Alcon. New York City NY

2011 Alcon Live Surgery Broadcast / Faculty Panel. AAO, Philadelphia PA (Orlando FL)

2011 Managing Angle-Closure Glaucoma With Crystalline Lens Removal and Adjunctive Procedures. Instructor AAO, Orlando FL

2011 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor AAO, Orlando FL

2011 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support: Hands On and Practical. Instructor AAO, Orlando FL

2011 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Lab Instructor AAO, Orlando FL

2011 Glaucoma Filtration Surgery Lab for Ophthalmology Residents. Lab Instructor AAO, Orlando FL

2012 Challenging Cases for the Comprehensive Clinician: A Multi-Disciplinary Approach to Management of Complex Cases. Faculty, ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Glaucoma Management Pearls: From Every Day Decisions to Advancing Surgery. Faculty, ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Glaucoma Hardware 2012: So Why As I Still Doing Trabs?? Optometry CE Course. Cranberry PA

2012 Skills Transfer Lab STS3: Iris Suture. ASCRS Glaucoma Day 2012. Chicago IL

2012 Iris Repair Technique (Siepser). ASCRS. Chicago IL.

2012 Dislocated IOL's. ASCRS. Chicago IL

2012 Video Grand Rounds: Management of Cataract and Refractive Surgery – What I Would Have Done Differently. Panelist Kiawah Eye 2012. Charleston SC

Instruction Courses:-cont'd

2012 Dinner Program / Faculty, Glaucoma Surgery: Filtering Out the Variables. AAO. Chicago IL

2012 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor. AAO. Chicago IL

2012 An Innovative Approach to Iris Fixation of an IOL Without Capsular Support: Hands-On and Practical. Instructor. AAO. Chicago IL

2012 Glaucoma Surgical Lab for Ophthalmology Residents. Instructor. AAO Chicago IL

2012 Managing Angle – Closure Glaucoma with Crystalline Lens Removal and Adjunctive Procedures. Instructor. AAO. Chicago IL

2013 Iris Repair Technique. ASCRS. San Francisco CA

2013 Dislocated IOL's. ASCRS. San Francisco CA

2013 Iris Suture Skills. Co-Instructor ASCRS. San Francisco CA

2013 Transfer Session Lab / Steven Siepser. ASCRS. San Francisco CA

2013 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor AAO. New Orleans LA

2013 Managing Angle-Closure Glaucoma With Crystalline Lens Removal and Adjunctive Procedures. Instructor AAO. New Orleans LA

2013 Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Instructor LAB AAO. New Orleans LA

2013 Iris Suture Fixation of IOLs. AAO. New Orleans LA

2013 Glaucoma Surgical Lab for Ophthalmology Residents. Instructor AAO. New Orleans LA

2014 Management of Complex Cataract. Instructor. ASCRS ASOA Winter Update 2014. Farjardo Puerto Rico

2014 Lecture Grand Rounds. Faculty Storm Eye Institute MUSC. Charleston Ophthalmology Society. Charleston SC

Instruction Courses:-cont'd

2014 Iris Suture Repair and IOL Fixation. Faculty. Didactic Course, Dr. Steven Siepsen. ASCRS ASOA. Boston MA

2014 Iris Suture Skills Transfer Session Lab (Dr. Steven Siepsen). Co-Instructor. ASCRS ASOA. Boston MA

2014 Intraocular Lens Exchange and Repositioning Techniques. ASCRS Course ASCRS ASOA. Boston MA

2015 Iris Suturing Techniques. Faculty. ASCRS Clinical Course. ASCRS ASOA. San Diego CA

2015 Iris Suture. Skills Lab. Co-Instructor. ASCRS ASOA. San Diego CA

2015 Intraocular Lens Exchange and Repositioning Techniques. Faculty. ASCRS Clinical Course. ASCRS ASOA. San Diego CA

2016 Iris Suturing Techniques. Faculty. ASCRS ASOA. New Orleans LA

2016 STS-6 Iris Suture, Skills Transfer Lab. Co-Instructor. ASCRS ASOA New Orleans LA

2016 Training Mission. Teaching and training the KATH Glaucoma surgeons at Komfo Anoyoke Teaching Hospital. Kumasi, Ghana

2017 "Iris-Suturing Techniques." Co-Instructor. ASCRS ASOA. Los Angeles CA

2017 "Iris Suture" Skills Transfer Labs. Co-Instructor. ASCRS ASOA. Los Angeles CA

Presentations:

1987 "Current Adjuncts in The Management of the Filtration Bleb", Department of Ophthalmology, University of Western Ontario, London, Ontario

1988 "Post-Operative Adjuncts in Filtration Surgery", Department of Ophthalmology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada

1988 "Glaucoma", Guest Lecturer for Lions Club, Pittsburgh, PA

Presentations:-cont'd

1988 "Argon Laser Suture Lysis Following Trabeculectomy", Alumnus, Annual Resident's Day, Department of Ophthalmology, University of Western Ontario, London, Ontario, Canada

1988 "Post-Operative Adjuncts in Filtration Surgery", Department of Ophthalmology, St. Francis Medical Center, Pittsburgh, PA

1990 "An Approach to the Glaucoma Patient", Beaver Valley Optometric Society

1991 "Associated Ocular Trauma", Participant, Contemporary management of Facial Trauma and Concomitant Injuries, Allegheny General Hospital, Pittsburgh, PA

1991 "Glaucoma", Lecture to the Pittsburgh Ophthalmology Society for Ophthalmic Medical and Office Personnel

1992 "Glaucoma Applanation and Indentation Tonometry", Guest Speaker, Pittsburgh Ophthalmology Society Annual Meeting for Ophthalmic Medical and Office personnel, Pittsburgh, PA

1992 "Particulate Glaucoma", Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA

1992 "Management of Glaucoma in Anterior Segment Disease", Participant, Cornea/Anterior Segment Update, Quarterly Visiting Professor Series, Allegheny General Hospital, Pittsburgh, PA

1992 "A General Approach to the Glaucoma Patient", Pennsylvania Optometric Association, Annual Congress Meeting, Champion, PA

1992 "Anterior Segment Evaluation in the Open Angle Glaucoma Patient", Pennsylvania Optometric Association, Annual Congress Meeting

1992 "Pitfalls in Automated Perimetry", Pennsylvania Optometric Association, Annual Congress Meeting

1993 "Glaucoma", Presentation at Ophthalmic Grand Rounds for Ophthalmic Medical and Office Personnel, Pittsburgh Ophthalmology Society

1993 "Exfoliation Syndrome", Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA

Presentations:-cont'd

1993 "Mitomycin in Combined Surgery", Nantucket Glaucoma Annual Meeting, Nantucket, MA

1993 "Filtering Surgery with Mitomycin: A Case Presentation", Guest Speaker, Association of Technical Personnel in Ophthalmology, Chicago, IL

1995 "Co-Existent Cataract and Glaucoma: Options, Incisions and Pearls", Ivey Institute of Ophthalmology, University of Western Ontario, London, Ontario, Canada

1995 "Mitomycin in Combined Cataract and Glaucoma Surgery", Ivey Institute of Ophthalmology, University of Western Ontario, London, Ontario, Canada

1996 "Coexistent Glaucoma and Cataract -- Options, Incisions and Pearls", West Virginia Ophthalmology Society for Otsuka America Pharmaceutical, Inc., Charleston, WV

1996 "Glaucoma Surgery - New Trends and New Complications", Current Trends in Optometry Conference, Robert Morris College, Pittsburgh, PA

1996 Pennsylvania Assoc. for the Blind, Guest speaker, Sharon PA

1997 "Glaucoma: New Trends – New Complications", Pennsylvania Association for the Blind 1997 Conference, Sharon, PA

1998 Canton Ophthalmology Society, "Glaucoma: New Trends-New Complications", Canton OH

1998 New Strategies in Glaucoma Management, "Adjunctive Therapy 1998: Let's be Rational", Atlantic City, NJ

1999 Allergan Glaucoma Symposium, "Initial Therapy", Washington, D.C.

1999 Buffalo Eye Club, Guest speaker, Buffalo NY "Coexistent Glaucoma and Cataract"

1999 "Co-existent Glaucoma & Cataract", University of Alberta, Edmonton, Canada

1999 "Glaucoma Surgery – New Trends & New Complications", University of Alberta, Edmonton, Canada

Presentations:-cont'd

1999 "Co-existent Glaucoma & Cataract", University of Saskatchewan, Saskatchewan, Canada

1999 Glaucoma Surgery – New Trends & New Complications", University of Saskatchewan, Saskatchewan, Canada

1999 "Initial Therapy: Let's Be Rational", Open Angle Glaucoma: A Focus on Current Management, New York, NY

2000 "Initial Therapy 2000", Reading PA

2000 "Initial Glaucoma Therapy", Sponsored by Allergan. Toronto, Canada

2000 "Initial Glaucoma Therapy", Sponsored by Allergan. London, Canada

2000 "Surgical Management of Glaucoma", Visiting Professor, Dalhousie University, Halifax, Canada

2000 Initial Glaucoma Therapy. Sponsored by Allergan, St. John's, Canada

2000 Initial Glaucoma Therapy. Sponsored by Allergan, New York NY

2001 Trends and Complications in Glaucoma Surgery. Annual Canadian Master's Club meeting, sponsored by Alcon, Tuscon AZ

2001 Revising the Failing Filter. Annual Canadian Master's Club meeting, sponsored by Alcon, Tuscon AZ

2001 Handle That Leaking Bleb. Annual Canadian Master's Club meeting, sponsored by Alcon, Tuscon AZ

2001 Optics, Haptics and Acrylics. Sponsored by Alcon, Baltimore MD

2001 Glaucoma Therapy – What is Success? Erie Ophthalmology Society meeting, Erie PA

2001 Glaucoma Therapy – What is Success? Sponsored by Alcon, Pittsburgh PA

2001 Optics, Haptics and Acrylics. Atlantic Canada Master's Club meeting, sponsored by Alcon, St. John's, Canada

Presentations:-cont'd

2002 Glaucoma Therapy – What is Success? Sponsored by Alcon, Charlotte NC

2002 Optics, Haptics and Acrylics. Annual Canadian Master's Club meeting, sponsored by Alcon, Bal Harbour FL

2002 Glaucoma Therapy – What is Success? Cincinnati Eye Institute, Cincinnati OH

2002 Glaucoma Therapy – What is Success? Sponsored by Alcon, Youngstown OH

2002 Simplified peripheral iris fixation of an acrylic IOL in the absence of capsular support. Meeting of the Atlantic Master's Club, sponsored by Alcon, St. Andrew's NB, Canada

2002 Prostaglandins – A View from the Trenches. Sponsored by Alcon, Greenville SC

2003 Glaucoma Therapy – What is Success? Sponsored by Alcon, Englewood NJ

2003 Glaucoma Therapy – What is Success? Sponsored by Alcon, Dayton OH

2003 Glaucoma Therapy – What is Success? Sponsored by Alcon, Columbus OH

2003 Advances in Glaucoma Therapy. Wheeling WV

2003 Advances in Glaucoma Therapy. Holidaysburg PA

2003 Glaucoma Therapy – What is Success? Glaucoma Speaker Training Meeting sponsored by Alcon Labs. Phoenix AZ

2004 Blebitis: The New Challenge. Pittsburgh PA

2004 Advances in Glaucoma Therapy: A Forward and Backward View. New Orleans LA

2004 Non-penetrating Glaucoma Surgery. Annual meeting of the Virginia Society of Ophthalmology. Chantilly VA

2004 Bleb Revision for Late Complications. Annual meeting of the Virginia Society of Ophthalmology. Chantilly VA

2004 Surgical Management of Late Bleb Problems. Annual Walter Reed Alumni Meeting. Washington DC

Presentations:-cont'd

2004 Iris Fixation of Acrylic PC IOLs: Results and Complications. Annual Walter Reed Alumni Meeting. Washington DC

2005 Impact of Central Corneal Thickness on the Management of Primary Open Angle Glaucoma. Pittsburgh PA

2005 Challenges, Complications and Innovations in Cataract Surgery. Pittsburgh PA

2005 Advances in Glaucoma Therapy: A Forward and Backward View. Annual Meeting of the Pittsburgh Ophthalmology Society. Pittsburgh PA

2007 Challenging Cataract & IOL Cases – A Video Potpourri. Visiting Professor, William Beaumont Hospital, Royal Oak, MI

2007 Iris Sutured IOLS – Where Are They Now? Visiting Professor. William Beaumont Hospital, Royal Oak, MI

2007 "Acute Angle Closure – Better Surgical Therapy" CME Dinner. Pittsburgh PA June 28, 2007

2007 Phacoemulsification in Acute Angle Closure Glaucoma Resident Lecture Series. University of Pittsburgh Medical Center, Department of Ophthalmology

2009 Don't Ice the Trab. Bascom Palmer Eye Institute. University of Miami. Annual Glaucoma Meeting

2009 Angle Closure Glaucoma – A New Era of Effective Surgical Therapy. Clinical Day in Ophthalmology 2009, London Ontario

2009 IOL Malposition – Then, Now and the Future. Clinical Day in Ophthalmology 2009, London Ontario

2009 G.V.Simpson Lecture 2009. Clinical Day in Ophthalmology 2009, London Ontario

2009 Acute Angle Closure – Better Surgical Management. Bowlds Lecture Lahey Clinic, Boston MA

2009 Late IOL Dislocation – The Real Deal. Bowlds Lecture Lahey Clinic, Boston MA

Presentations:-cont'd

2009 Acute Angle Closure: Better Surgical Therapy. Utah Ophthalmology Society Dinner Meeting

2009 Late IOL Dislocation: the Future is Now. University of Utah Health Care Clinical Faculty Day

2009 Decision Making in Early POAG. Glaucoma Roundtable. Allergan, Pittsburgh PA

2010 Zonule Problems in Pseudoexfoliation, Glaucoma Challenges / Simmons Lecture. Guest Speaker. NEOS, Boston MA

2010 Is There Still a Role for Trabeculectomy? Simmons Lecture. Guest Speaker. NEOS, Boston MA

2010 Panel Discussion, Faculty. Glaucoma Challenges / Simmons Lecture. NEOS, Boston MA

2010 Glaucoma Management – Sponsored by Allergan, Pittsburgh PA

2010 Glaucoma Roundtable / Alcon. Atlanta GA

2010 Glaucoma CORE Program / Allergan. Carnegie House, State College PA

2010 ExPRESS Dinner Meeting / Alcon. Baltimore MD

2010 Speaker, Glaucoma CORE Program / Allergan. Norfolk VA

2011 Speaker / Alcon. Greenville SC

2011 Surgical Management of Glaucoma, Visiting Consultant / Allergan. Irvine CA

2011 Understanding the Approach to Complex Cases. Alcon Speaker's Forum. ASCRS-ASOA. San Diego CA

2011 Speaker, Lumigan 0.01% CORE Program / Allergan. Newport News VA

2011 Glaucoma Therapy, Allergan Dinner Program. Erie PA

2011 Glaucoma Management: A Novel Approach to Trabeculectomies / Alcon. Coral Gables FL

Presentations:-cont'd

2011 Toric Roundtable / Alcon. Pittsburgh PA

2011 Cincinnati Eye Institute Glaucoma Dinner ' Alcon. Cincinnati OH

2011 Lumigan 0.01% CORE Program / Allergan. Altoona PA

2011 Dinner Meeting / Speakers Alliance Alcon. New York City

2011 Toric Roundtable / Alcon. DuBois PA

2011 Discussion of ExPRESS Surgical Glaucoma Device and Advanced Technology IOLs . Alcon Speaker. Granger IN

2011 Glaucoma Surgery: Maximize Your Options with ExPRESS. Alcon Speaker. Charlotte NC

2012 ExPRESS Dinner Lecture. Alcon Speaker. Milwaukee WI

2012 Video Presentations: Complications and Challenging Cases, New Tricks and New Instrumentation: My Favorite Case of the Year. Faculty, ASCRS Winter Update 2012. Riviera Maya Mexico

2012 Allergan Glaucoma Program Speaker. Kansas City MO

2012 Alcon ExPRESS Glaucoma Filtration Speaker. San Diego CA

2012 Roundtable Discussions – Premium IOL Use. American Glaucoma Society 2012 Annual Meeting. New York City NY

2012 Alcon ExPRESS Glaucoma Filtration Speaker. New York City NY

2012 Alcon Booth Talk. American Society of Cataract and Refractive Surgery. Chicago IL

2012 Speaker's Forum, Alcon Presenter. McCormick Place West, Eye World Theater. Chicago IL

2012 Glaucoma Surgery: Maximize Your Options with ExPRESS. Alcon Dinner Meeting. Chicago IL

Presentations:-cont'd

2012 Glaucoma Surgery: Maximize Your Options with ExPRESS. Alcon Atlanta GA

2012 Alcon ExPRESS Speaker. Washington DC

2012 Allergan Speaker. Johnstown PA

2012 Tools and Techniques With OVD's for Maximizing Outcomes. Speakers Forum AAO. Chicago IL

2013 Controversies in Medicine, Midwestern Conference. Los Angeles CA

2013 Predictable and Minimally Invasive Glaucoma Surgery Techniques, Alcon Speaker, Chicago Glaucoma Society Meeting. Chicago IL.

2013 FORGE III: Detecting and Managing Glaucoma Progression, CORE Speaker Program, Allergan. State College PA

2013 Express Dinner Meeting, Alcon. Chicago IL

2013 Trabeculectomy, Still Our Best Option? Alcon. Annapolis MD

2013 Predictable and Minimally Invasive Glaucoma Surgery Techniques. Alcon Speakers Alliance. Morgantown WV

2013 Express Dinner Meeting, Alcon. Scottsdale AZ

2013 Predictable and Minimally Invasive Glaucoma Surgery Techniques, Alcon Speakers Alliance Event. Valley View OH

2013 Pseudo ex: Something for Everyone. Pittsburgh Ophthalmology Society Quarterly Meeting. Pittsburgh PA

2014 "Challenging Cases in Anterior Segment Surgery." Video Case Presentation. Faculty. ASCRS ASOA Winter Update 2014. Farjardo Puerto Rico

2014 "Updating Your Glaucoma Treatment Armamentarium." Faculty. ASCRS ASOA Winter Update 2014. Farjardo Puerto Rico

2014 Pseudoexfoliation from Stem to Stem. 98th Annual Clinical Assembly of the AOCOO-HNS Foundation. Scottsdale AZ

Presentations:-cont'd

2014 Glaucoma Speaker Training. Alcon. Miami FL

2014 Trabeculectomy 2014 – Is There Still a Role? 98th Annual Clinical Assembly of the AOCOO-HNS Foundation. Scottsdale AZ

2014 Pseudoexfoliation from Stem to Stem. 98th Annual Clinical Assembly of the AOCOO-HNS Foundation. Scottsdale AZ

2015 "MIGS" 2015: Are We There Yet? Visiting Professor Grand Rounds. Ottawa Canada

2015 "Pseudoexfoliation: Something for Everyone." Key Note Speaker (Annual Ophthalmology and Optometry Dinner) Ottawa Canada

2017 "New Meds / MIGS Options: Can We Do Better." Featured Speaker. Georgia Society of Ophthalmology Annual Meeting. Amelia Island FL

2017 "Posterior Polar Cataract: Do's and Don'ts." Featured Speaker. Georgia Society of Ophthalmology Annual Meeting. Amelia Island FL

2017 "Surgical Triumphs and Tragedies: A Video Potpourri." Featured Speaker. Georgia Society of Ophthalmology Annual Meeting. Amelia Island FL

Research Grants:

1990 Glaucoma Software Development Program, Pennsylvania Lions Club/Allegheny Singer Research Institute, $90,000.

1996 Postoperative Complications Following Mitomycin-C Assisted Trabeculectomy: Mechanisms and Control by FGF-2, Allegheny Singer Research Institute, $10,000.

1996 Immunologic Reactivity to Human Optic Nerve Tissue of Serum From Patients with Low-Tension Glaucoma, Open-Angle Glaucoma and No Ocular Disease, Allegheny Singer Research Institute, $10,000

Clinical Trials Participation:

1989 Betaxalol vs Betaxalol-S, Clinical Investigator. Sponsored by Alcon Pharmaceuticals

1995 Latanoprost. Clinical Investigator, Phase III study site. Sponsored by Pharmacia-Upjohn

2003-2006 Bidirectional Glaucoma Shunt (Eyepass) Phase III Study – Principal Investigator-Sponsored by GMP/Vision Solutions Inc.

2005-Present iScience Schlemm's Canal Dilation / Imaging Phase III Study

2008 Trabeculectomy vs Express Shunt. Randomized Multi Center Clinical Trial

Fellows Trained:

1991 - 1992	Karen B. Lauer, M.D. 420 East North Avenue Suite 116 Pittsburgh, PA 15212
1992 – 1993	Richard A. Lehrer, M.D. Alliance Eye 285 Sawburg Alliance, OH 44601
1993 - 1994	Christopher G. Spanich, M.D. 13602 N 46th Street Tampa, FL 33613
1994 - 1995	Ghada Orkubi, M.D. P.O. Box 8447 Jeddah, Saudi Arabia 21482
1995 - 1996	Griffith Steiner, M.D. Physicians Medical Office Building 3340 Providence Drive, Suite 565 Anchorage, AK 99508

Fellows Trained:-cont'd

1996 - 1997	David A. DeRose, M.D. 118 West Lakeshore Drive Rockaway, NJ 07866
1997 - 1998	Bret C. Crumpton, M.D. W. Georgia Eye Care Center 2616 Warm Springs Road Columbus, Georgia 31904
1998 – 1999	Matthew Bilder, M.D. 1945 Queenswood Drive York, PA 17406
1999 – 2000	Rajiv Bindlish, M.D. 1939 Carscadden Chase Mississauga, Ontario L4W3R8
2003 – 2004	Rupal N. Chiniwalla, M.D. 104 Seavey Highlands Drive Pittsburgh, PA 15223
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Appendix B

List of Materials Considered

Exhibit Number	Description
1001	U.S. Patent No. 9,999,544
1002	U.S. Patent No. 9,999,544 Prosecution History
1003	The Netland Declaration
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1007	Philipp C. Jacobi *et al.*, "Technique of goniocurettage: a potential treatment for advance chronic open angle glaucoma," 81 *British J. Ophthalmology* 302-07 (1997)
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1011	M. Bruce Shields, *Textbook of Glaucoma, Fourth Edition.* Baltimore, Maryland: Williams & Wilkins (1998)
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1013	Philipp C. Jacobi *et al.*, "Perspectives in trabecular surgery," Eye 2000;14(Pt 3B)(3b):519-30 (2000)
1014	F. Skjaerpe, "Selective Trabeculectomy. A Report of a New Surgical Method for Open Angle Glaucoma," *Acta Ophthalmologica* 61:714-27 (1983)
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1021	Arsham Sheybani, *Bent Ab-interno Needle Goniectomy (BANG)*, YouTube (Aug. 24, 2017), https://youtu.be/b5QxWts-Pxs
1022	U.S. Patent No. 4,099,529
1023	R. Moses, "Electrocautery Puncture of the Trabecular Meshwork in Enucleated Human Eyes," *Am. J. of Ophthalmology* 72(6): 1094-96 (1971)
2020	Sworn Affidavit of Manuel Quintana, M.D.
2023	DORLAND'S MEDICAL DICTIONARY SHORTER EDITION abridged from 25th ed. (1980) excerpt at 605 (definition of "section")
2024	BLACKS MEDICAL DICTIONARY 47th ed. (1992) excerpt at 519 (definition of "section")