

DANIEL H. CHANG, M.D.

Diplomat, American Board of Ophthalmology

EMPIRE EYE AND LASER CENTER
4101 Empire Drive, Suite 120
Bakersfield, CA 93309
661-325-3937 • 661-283-3937 (fax)
www.empireeyeandlaser.com

BOARD CERTIFICATION

Jun 2006 to
Dec 2026 American Board of Ophthalmology
Certificate #27384

EMPLOYMENT

Jan 2008 to
Present Cataract and Refractive Surgeon / Managing Partner
Empire Eye and Laser Center
Bakersfield, California

Feb 2015 to
Present Medical Director
Empire Surgery Center
Bakersfield, California

Nov 2010 to
Present Volunteer Surgeon
Advanced Center for Eyecare
Bakersfield, California

Aug 2005 to
Dec 2007 Cornea, Cataract, and Refractive Surgeon
Paradise Valley Eye Specialists / Horizon Laser Vision Center
Scottsdale, Arizona

Oct 2005 to
Dec 2007 Medical Director
Advanced Laser Eye Center, a TLC Associate
Tucson, Arizona

ACADEMIC AFFILIATIONS

2013 to Present Adjunct Clinical Professor of Family Medicine
Keck School of Medicine of University of Southern California
Los Angeles, California

TRAINING

July 2004 to
July 2005 Cornea, Refractive Surgery, Glaucoma, and External Disease Fellowship
Minnesota Eye Consultants (Drs. Lindstrom, Samuelson, Hardten, and Davis);
Minneapolis, Minnesota

July 2001 to
June 2004 Ophthalmology Residency
Chief Resident (2003–2004; selected by faculty and fellow residents)
Emory University School of Medicine; Atlanta, Georgia

July 2000 to
June 2001 Transitional Year Residency
Atlanta Medical Center; Atlanta, Georgia

EDUCATION

Aug 1995 to
May 2000 Doctor of Medicine
Continuation of Enrollment (1998–99, Served as a Research Analyst)
Duke University School of Medicine; Durham, North Carolina

Sep 1991 to
June 1995 Bachelor of Science, with Honors (Chemistry, GPA 3.9)
California Institute of Technology; Pasadena, California

NONPROFIT BOARD OF DIRECTORS

2013 to present The Samuel and Barbara Masket Foundation
2012 to present Center for the Blind and Visually Impaired (CBVI)
Vice President (2012 to 2015) & Treasurer (2012 to 2015)
2010 to present Advanced Center for Eyecare (ACE)
President (2015 to present)
Vice President (2010 to 2015) & Treasurer (2010 to 2015)
2010 to present Brighton Estates Homeowners Association,
President (2013 to present)

EDITORIAL ADVISORY BOARDS

2016 to present Cataract & Refractive Surgery Today

PROFESSIONAL COMMITTEES

2015 to present American Society of Cataract and Refractive Surgery (ASCRS) Refractive Clinical
Committee—Member
2015 to present Vanguard Ophthalmology Society (VOS) Executive Committee—Vice President
2004 to 2008 American Society of Cataract and Refractive Surgery (ASCRS) Young Ophthalmologists
Clinical Committee—Member
2004 to 2006 Ophthalmology Times Annual Resident Writer's Award Review Board

PROFESSIONAL SOCIETIES

American Academy of Ophthalmology (AAO)
American Society of Cataract and Refractive Surgery (ASCRS)
Association for Research in Vision and Ophthalmology (ARVO)
California Academy of Eye Physicians & Surgeons (CAEPS)
Christian Ophthalmology Society (COS)
International Society of Refractive Surgery of the AAO (ISRS)
International Society of Presbyopia (ISOP)
Outpatient Ophthalmic Surgery Society (OOSS)
Vanguard Ophthalmology Society (VOS)

HONORS/AWARDS

2017	Bakersfield Life Magazine: "2017 Top Doctors List"
2016	American Academy of Ophthalmology 2016 Annual Achievement Award
2016	OSN Premier Surgeon 300: Innovators in Refractive Cataract Surgery
2013	Bakersfield Life Magazine: "20 Under 40 People to Watch"
2013	American Society of Cataract and Refractive Surgery, Best Paper of Session (BPOS) Winner (Session: 3-C Intraocular Surgery: Presbyopia-Correcting IOLs)
2013	American Society of Cataract and Refractive Surgery, Scientific Film Festival Awards Runner-Up (Cataract Complications)
2004	Emory Ophthalmology Residents' Day Academic Session, Second Place
2003	Ophthalmology Times First Annual Resident Writer's Award, First Place
1995	Graduated with Honors (California Institute of Technology)
1991	National Merit Scholar

TEACHING

2014 to present	Guest Faculty and Laboratory Instructor: Carolina Residencies Phacoemulsification Training Course (Duke, UNC, Wake Forest, and MUSC), Durham/Chapel Hill, NC
2013 to present	Assistant Laboratory Instructor: Abbott Medical Optics Advanced Cataract Surgery Course, Santa Ana, CA
2012	Jules Stein Eye Institute Resident and Fellow Phaco Lab (Abbott Medical Optics in Santa Ana, CA), Lecturer and Laboratory Instructor
2012 to present	Lecturer, USC Primary Care Physician Assistant Program, Keck School of Medicine, USC, Los Angeles, CA
2007	Arizona Optometric Association 2007 Annual Fall Congress, Lecturer
2006 to 2014	Adjunct Faculty, Physician Assistant Studies, College of Health Sciences, Midwestern University, Glendale, AZ
2005 to present	Optometric Continuing Medical Education, Lecturer
2005	St. Luke's Ophthalmic Personnel Education, Lecturer
2005	TLCVision Refractive Surgery Course, Lecturer
2005	Minnesota Resident Phacoemulsification Course & Wet Laboratory, Laboratory Instructor

PEER-REVIEWED PUBLICATIONS

Piers PA, **Chang DH**, Alarcón A, and Cánovas C. Letter to the Editor: Clinically Relevant Interpretations of Optical Bench Measurement of IOLs. *J Refract Surg*. Accepted for publication.

Chang DH. Visual acuity and patient satisfaction at varied distances and lighting conditions after implantation of an aspheric diffractive multifocal one-piece intraocular lens. *Clin Ophthalmol*. **10**(4):1471-7, 2016.

Chang DH and Rocha KM. Intraocular Lens Optics and Aberrations. *Curr Opin Ophthalmol*. **27**(4):298-303, 2016.

Chang DH and Waring IV GO. Reply to Correspondence: The Subject-Fixated Coaxially Sighted Corneal Light Reflex: a Clinical Marker for Centration of Refractive Treatments and Devices. *Am J Ophthalmol*. **159**(3):612, 2015.

Chang DH and Waring IV GO. The Subject-Fixated Coaxially Sighted Corneal Light Reflex: a Clinical Marker for Centration of Refractive Treatments and Devices. *Am J Ophthalmol*. **158**(5):863-874, 2014.

Chang DH. August Consultation #4. *J Cataract Refract Surg.* **40**(8):1391-92, 2014.

Chang DH and Davis EA. Multicenter clinical evaluation of an aspheric diffractive multifocal one-piece IOL. *Invest Ophthalmol Vis Sci* 2013: E-Abstract 833.

Chang DH. Centration stability of a one-piece aspheric diffractive multifocal IOL. *Invest Ophthalmol Vis Sci* 2012;**53**: E-Abstract 1375.

Narváez J, Zimmerman G, Stulting RD, **Chang DH.** Accuracy of intraocular lens power prediction using the Hoffer Q, Holladay 1, Holladay 2, and SRK/T formulas. *J Cataract Refract Surg.* **32**(12):2050-3, 2007.

Chang DH and Stulting RD. Biostatistics in ophthalmology: Author reply. *Ophthalmol.* **113**(9):1685, 2006.

Chang DH and Davis EA. Phakic intraocular lenses. *Curr Opin Ophthalmol.* **17**:99-104, 2006.

Chang DH and Hardten DR. Refractive surgery after corneal transplantation. *Contemp Ophthalmol.* **4**(23):1-5, 2005.

Chang DH and Hardten DR. Refractive surgery after corneal transplantation. *Curr Opin Ophthalmol.* **16**: 251-5, 2005.

Chang DH and Stulting RD. Change in intraocular pressure readings following LASIK: The effect of the refractive correction and the lamellar flap. *Ophthalmol.* **112**: 1009-16, 2005.

Fowler WC, **Chang DH**, Roberts BC, et al. A new paradigm for corneal wound healing research: The white leghorn chicken (*Gallus gallus domesticus*). *Curr Eye Res.* **28**: 241-50, 2004.

Everts RJ, Fowler WC, **Chang DH**, Reller LB. Corneoscleral rim cultures: lack of utility and implications for clinical decision-making and infection prevention in the care of patients undergoing corneal transplantation. *Cornea.* **20**: 586-9, 2001.

Fowler WC, **Chang DH**, Proia AD. Systematic infrared ablations with the Mark III FEL at 2.94 μm in the chicken cornea. *Nuclear Instruments and Methods in Physics Research, Sect A.* **429**: 502-6, 1999.

Fowler WC, Rose JG, **Chang DH**, Proia AD. The free electron laser: a system capable of determining the gold standard in laser vision correction. *Nuclear Instruments and Methods in Physics Research, Sect A.* **429**: 497-501, 1999.

Chang DH, Hooper BA, Pandya NB, et al. Spectroscopic determinations of in vivo and ex vivo corneal absorption. *Invest Ophthalmol Vis Sci.* **40**: s342, 1999.

White BC, Pfister-Serres A, Grinstaff MW, Springs CL, **Chang DH**, Fowler WC. Transplanting corneal grafts with a laser activated polymer. *Invest Ophthalmol Vis Sci.* **40**: s636, 1999.

BOOK CHAPTERS

Hardten DR and **Chang DH.** "Astigmatic keratotomy and peripheral corneal relaxing incisions." In: Brightbill FS, McDonnell PJ, McGhee CNJ, Farjo AA, Serdarevic ON, eds. *Corneal Surgery: Theory, Technique and Tissue*, 4th edition: Elsevier Inc. 2009.

Chang DH. "Patient evaluation and counseling." In: Davis EA, Hardten DR, Lindstrom RL, eds. *Presbyopic Lens Surgery: a Clinical Guide to Current Technology*: Thorofare, NJ: SLACK Incorporated, 2007.

Chang DH and Davis EA. "Multifocal IOLs." In: Azar D, ed. Refractive Surgery, 2nd edition: Philadelphia: Elsevier, 2007.

Chang DH, Hardten DR, Lindstrom RL. "Incisional keratotomy." In: Tasman W and Jaeger EA, eds. Duane's Clinical Ophthalmology, 4th edition: Baltimore: Lippincott Williams & Wilkens. 2006.

Chang DH. "Duke University School of Medicine." In: Oransky I, Varma JK, Poulsen EJ, Sanghavi DM, eds. The Insider's Guide to Medical Schools. Princeton: Peterson's, 1999.

TRADE PUBLICATIONS

Chang DH. Addressing expectations for range of vision and visual quality. In Presbyopia correction: Exploring surgical options, expectations, and postoperative error, an EyeWorld CME monograph. pp. 4-5, Jan 2017.

Chang DH. Extended-Range-of-Vision or Low-add multifocal IOL? Cataract Refract Surg Today. **17**(1): 24-5, 31, Oct 2016.

Chang DH. Interview: Low-add multifocal and Extended Depth-of-Focus IOLs. In Cataract 360: Fundamentals, Techniques, & Technology. **1**(4): 11-6, Nov 2016.

Chang DH, Donnenfeld ED, Loden JC, Tyson II F. Extended Depth of Focus and your practice. Supplement to Cataract Refract Surg Today. Oct 2016.

Chang DH. Ensure toric IOLs' stability. Cataract Refract Surg Today. **16**(10): 48-9, Oct 2016.

Donnenfeld ED, **Chang DH**. Integrating Toric Lenses into Your Practice. An eBook, distributed by Ophthalmology Times. Aug 2016.

Chang DH. Night vision and presbyopia-correcting IOLs. Cataract Refract Surg Today. **16**(8): 25-6, Aug 2016.

Chang DH. Optics Innovation: Symphony Extended Range of Vision IOL. Cataract Refract Surg Today Europe. **11**(2): 40-2, Feb 2016.

Chang DH. Dr. Chang's video featuring Tecnis Toric and WhiteStar Signature-on-eyeflashmonthly. Eyetube Optimizing Toric IOL Outcomes. <http://eyetube.net/series/tecnis-iol/onome/>. 2015.

Chang DH. Full Diffractive Low-Add Multifocal IOLs Expand Options. EyeWorld. **20**(10): 30-1, Oct 2015.

Chang DH. Adopting new technology in the treatment of presbyopia. In "The Presbyopia Challenge." Millennial Eye v3.4(14), Jul/Aug 2015.

Chang DH. What is your favorite Travel App? Cataract Refract Surg Today. **15**(7): 83-4, Jul 2015.

Chang DH, Novel phaco platform facilitates cutting efficiency, chamber stability. Ophthalmol Times. **40**(10): 24, Jun 15, 2015.

Chang DH, Multifocal low-add IOLs provide personalized best range for near, intermediate. Ophthalmol Times. Jun 01, 2015.

Chang DH. Toric IOLs: Tecnis Toric IOL. Cataract Refract Surg Today. **15**(6): 40-6, Jun 2015.

Chang DH. Seeing a sharper world through rose (and blue) colored glasses. *EyeWorld*. **20**(6):18-20, Jun 2015.

Chang DH. Clinical Investigation of Expanded Designs of Aspheric Diffractive Multifocal Low-Add Lenses. <http://eyetube.net/series/daily-coverage-san-diego-2015/clinical-investigation-of-expanded-designs-of-aspheric-diffractive-multifocal-low-add-lenses/>. *Eyetube*. Apr 2015

Waring GO IV, Ayers BD, **Chang DH**, Kang PC, Kieval JZ, Wiley WF, Yeu E. Advanced Lenses for Cataract Surgery. *Suppl to Cataract Refract Surg Today*. Apr 2015.

Chang DH. Chromatic Aberration. In "Advanced Lenses for Cataract Surgery." *Suppl to Cataract Refract Surg Today*. p.5, Apr 2015.

Chang DH. OPMI Lumera 700 Surgical Microscope. <https://vision.beye.com/articles/surgical-imaging-microscopes/opmi-lumera-700-surgical-microscope>. Apr 1, 2015.

Chang DH. IOLMaster 500 Optical Biometer. <https://vision.beye.com/articles/diagnostic-instruments/iolmaster-500-optical-biometer>. Apr 1, 2015.

Chang DH. Recent FDA approval expands multifocal IOL choices. *Ocular Surgery News U.S. Edition*. **33**(6):22, Mar 25, 2015.

Chang DH. Perspectives on presbyopia from 35,000 feet. In "The Presbyopia Challenge." *Millennial Eye* v3.1(11), Jan/Feb 2015.

Chang DH. IOL optics and quality of vision. In "Defining excellence in IOL optics." *Suppl to EyeWorld*. Dec 2014.

Chang DH, Garg S, Kieval J, Ma JJK, Wörtz GN. Moderator, Roundtable discussion: Choices in clinical practice. In "Defining excellence in IOL optics." *Suppl to EyeWorld*. Dec 2014.

Chang DH. Presbyopia-Correcting Nomenclature. In "The Presbyopia Challenge." *Millennial Eye* v2.5, Sep/Oct 2014.

Chang DH, Grijalva J, Kahook MY, Krupa M, Afshari NA. Clinical trials: what young practitioners need to know. *Cataract Refract Surg Today*. **14**(6): 23-6, Jun 2014.

Chang DH. Striving for Better Endpoints. In "The Presbyopia Challenge." *Millennial Eye* v2.3, May/June 2014.

Chang DH. Proper toric IOL Alignment Begins with Centration: the ABCs of positioning toric IOLs. *Cataract Refract Surg Today*. **14**(4): 25-6, Apr 2014.

Chang DH. Correction of Presbyopia: A Balance of Compromises. In "The Presbyopia Challenge." *Millennial Eye* v2.1, Jan/Feb 2014.

Chang DH. Colvard DM, MacDonald SM. My phaco chop technique. *Cataract Refract Surg Today*. **14**(1): 34, Jan 2014.

Chang DH. Managing iris prolapse when sealing the wound during cataract surgery. *EyeWorld*. **18**(12):20-1, Dec 2013.

Chang DH. IOL materials, optics and the happy patient. *Ocular Surgery News U.S. Edition*. **31**(21):22-5, Nov 10, 2013.

Chang DH. Presbyopia: A degenerative medical condition? In "The Presbyopia Challenge." Millennial Eye v1.3, Sep 2013.

Chang DH. ANSI standards for toric IOLs. *Cataract Refract Surg Today.* **13(6):** 32, Jun 2013.

Chang DH. Toric IOLs and the ANSI guidelines. In "Update on the Latest in Refractive Cataract Techniques and Technologies." *Suppl to EyeWorld.* p.4, May 2013.

Chang DH and Waring GO, Device implantation: At the center of it all. *Focus on Refractive Surgery.* *Ophthalmol Times.* **38(8):** 15-6, Apr 15, 2013.

Chang DH, IOL centration: Location is everything. *Ophthalmol Times.* **38(7):** 32-3, Apr 1, 2013.

Chang DH, Measure twice, cut once: Repeating biometry on a separate visit can help to eliminate outliers and tighten up refractive results after cataract surgery. *Cataract Refract Surg Today.* **13(4):** 27-8, Apr 2013.

Chang DH, Henderson BA, Katsev DA, Ong-Tone L. Approaches to removing an IOL from the capsule. *Cataract Refract Surg Today.* **12(9):** 26-8, 2012.

Chang DH. Managing iris prolapse at the end of cataract surgery. *Cataract Refract Surg Today.* **12(9):** 45-7, 2012.

Chang DH. Surgeon explains approach for topography-assisted astigmatic axis alignment. *Ocular Surgery News.* **29(21):** 8-9, 2011.

Chang DH. Characterizing IOLs with Purkinje images. *Cataract Refract Surg Today.* **11(10):** 31-5, 2011.

Chang DH. Using Purkinje images to improve IOL centration. In "Targeting Better Visual Outcomes: Modern Techniques for Clinical Success in Cataract Surgery." *Suppl to Cataract Refract Surg Today.* **11(10s):** 14-5, 2011.

Chang DH. Determining ocular fixation for centering IOLs with Purkinje images. *Cataract Refract Surg Today.* **11(7):** 32-4, 2011.

Chang DH. Centering IOLs using Purkinje images. *Cataract Refract Surg Today.* **11(6):** 35-8, 2011.

Kanellopoulos J, **Chang DH,** Hardten DR et al. Surface irregularity after enhancement. *Cataract Refract Surg Today.* **5:** 39-42, 2005.

Chang DH, Fahmy, AM, Hardten, DR. Man undergoes CustomVue wavefront PTK for polyopia. *Ocular Surgery News.* **22(22):** 38, Nov 15, 2004.

Chang DH. Microbial keratitis after LASIK enhancement poses risk. *Ophthalmol Times.* **29(2):** 16-8, Feb 1, 2004.

CHAired/Moderated Symposia

Co-chairman with Auffarth G. "Refractive IOL Complications." Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Apr 2015.

Co-moderator with Wang N. "Utilizing the Latest IOL Technology to Maximize Results in Toric, Multifocal and Standard Cataract Patients." EyeWorld ASCRS-Authorized Education at the Asia-Pacific Academy of Ophthalmology Congress. Guangzhou, China. Apr 2015.

INVITED PRESENTATIONS

"Design and mechanism of action of Tecnis Symphony IOL and Tecnis Symphony Toric IOL." Keys to clinical success with Extended Depth of Focus IOLs. Presented at the Slack Industry Expert Theater at the 2017 Hawaiian Eye Meeting, Koloa, HI. Jan 2017.

"Aberrations and the next generation of presbyopia-correcting IOLs." Presented at the Los Angeles Society of Ophthalmology Meeting. Los Angeles, CA. Sep 2016.

"Aberrations and the next generation of presbyopia-correcting IOLs." Presented at the Los Angeles Society of Ophthalmology Meeting. Los Angeles, CA. Sep 2016.

"Tecnis Symphony IOL." Session V: Lenticular methods for presbyopia correction. Presented at Presbyopia 2016, Copenhagen, Denmark. Sep 2016.

"Cataract surgery and presbyopia correction: The perfect opportunity." Presented at the 40th Annual Christian Ophthalmology Society Meeting, Portland, OR. Aug 2016.

"Case 2: Patient has 4.0 D cylinder power toric IOL rotated 15 degrees, has residual cylinder. How to fix?" Session 7: Managing the practice experience. Presented at the American-European Congress of Ophthalmic Surgery Summer Meeting, Deer Valley UT. Jul 2016.

"Expectations for visual quality and range of vision." Complete correction for the presbyopia patient: Understanding the range of presbyopia needs & delivering patient-customized care. Presented at an EyeWorld CME Symposium at the American Society of Cataract and Refractive Surgery Symposium and Congress, New Orleans, LA. May 2016.

"New low add MF-IOLs and EDOF IOLs." Session 2: Dialing in to Refractive Surgery, Section 1: Pinning down Presbyopia. Presented at Cornea Day 2016, Chicago, IL. May 2016

"The minority report on my refractive practice." Presented at the 6th Annual Vanguard Ophthalmology Society Annual Meeting. Scottsdale, AZ. Feb 2016.

"Zeiss IOLMaster 700." Presented at the Carl Zeiss Meditec Advancements in Premium IOL Cataract Surgery Symposium at the 2016 Hawaiian Eye Meeting, Waikoloa, HI. Jan 2016.

"Presbyopia: The final frontier in vision-correction surgery." Disease Overview. Presented at the Abbott iCreate 2015 Symposium, Santa Clara, CA. Nov 2015.

"Extended Depth of Focus IOLs: Pros." Lessons learned about new technologies for refractive cataract surgery. Presented at the International Society of Refractive Surgery Symposium at the American Academy of Ophthalmology Annual Meeting, Las Vegas, NV. Nov 2015.

"Aligning the axis of arcuate incisions." Presented at the Catalys User Meeting at the American Academy of Ophthalmology Annual Meeting, Las Vegas, NV. Nov 2015.

"Not use femto to make money." Presented at the Vanguard Ophthalmology Meeting at the American Academy of Ophthalmology Annual Meeting, Las Vegas, NV. Nov 2015.

"Presbyopia: the final frontier in vision-correction surgery." Presented at the Caltech Distinguished Medical Engineering Seminar, Pasadena, CA. Oct 2015.

"Pick your power." Up close and personal: Presbyopia is back in town. Presented at MillennialEye Live 2015, Hollywood, CA. Sep 2015.

"Optic aberrations and the Tecnis family of IOLs" Presented at "Turning a premium surgery to a daily practice to obtain extraordinary results," an Abbott Symposium at the Pan American Academy of Ophthalmology, Bogota, Columbia. Aug 2015.

"Cataract patient wants good uncorrected distance, mid and near, but fears halos." Challenging Cases: IOL Selections, Case 2. Presented at the American-European Congress of Ophthalmic Surgery Summer Meeting, Deer Valley UT. Jul 2015.

"Rethinking what it means to be a Christian ophthalmologist" Presented at the Christian Ophthalmology Society Prayer Breakfast at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2015.

"In-the-bag' complications: Quality of vision and night vision symptoms." Presented at the Refractive IOL Complications Symposium. Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Apr 2015.

"Clinical study for Fusion phaco." Presented at the AMO Phaco User Meeting at the Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Apr 2015.

"Unhappy multifocal IOL patients." Presented at the Refractive Cataract/IOL Surgery—My Top 5 Pearls Symposium. Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Apr 2015.

"IOL calculation in high myopic eyes." Presented at the Surgery of High Myopia Symposium. Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Apr 2015.

"Clinical study for Tecnis Multifocal IOL." Presented at the AMO Refractive Cataract Surgery Advancement Forum at the Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Mar 2015.

"The light of sight: New reference axes for centration." Presented at the Vanguard Ophthalmology Society Annual Meeting. Palm Beach, FL. Feb 2015.

Co-presentation with Gupta PK. "Postoperative management and things that can go wrong on POD 1." Presented at the Carolina Residencies Phacoemulsification Training Course, Chapel Hill, NC. Jan 2015.

"Redefining the light line of sight with premium IOLs." Presented at the Carolina Residencies Phacoemulsification Training Course, Durham, NC. Jan 2015.

"Designing the ideal MillennIOL: Optical properties." Presented at MillennialEye Live 2014, Austin, TX. Nov 2014.

"Achieving the apex of centration." Presented at the Catalys User Meeting at the American Academy of Ophthalmology Annual Meeting, Chicago, IL. Oct 2014.

"Why I use the Tecnis multifocal IOL." Presented at the International Society of Presbyopia: Presbyopia 2014, London, England. Sep 2014.

"Presbyopic IOL nomenclature: technical, regulation, and marketing." Presented at the International Society of Presbyopia: Presbyopia 2014, London, England. Sep 2014.

"Femto with a Decentered Crystalline Lens." Presented at the American-European Congress of Ophthalmic Surgery Summer Meeting, Deer Valley UT. Jul 2014.

"Optical considerations and clinical benefits of Tecnis intraocular lenses." Presented at the Catarata: Actualidades en la Práctica Quirúrgica symposium at the XXXII Congreso Mexicano de Oftalmología, Cancún, Mexico. Jun 2014.

"Premium lens design for high quality visual outcomes with a new preloaded delivery system." Presented at the Abbott Medical Optics Speakers Forum at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

"Customized premium lens outcomes combined with a new preloaded delivery system." Presented at the Abbott Medical Optics Speakers Forum at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

"Red, white, and blue: colors, optics, and you." Presented at Vanguard Ophthalmology Society Annual Meeting. Scottsdale, AZ. Feb 2014.

Co-presentation with Gupta PK. "Postoperative management and things that can go wrong on POD 1." Presented at the Quad-Residency Phacoemulsification Training Course, Chapel Hill, NC. Jan 2014.

"IOLs: materials, optics, and positioning." Presented at the Quad-Residency Phacoemulsification Training Course, Durham, NC. Jan 2014.

"Tecnis Multifocal 1-Piece IOL product overview." Presented at the International Society of Presbyopia: Presbyopia 2013, Amsterdam, Netherlands. Oct 2013.

"IOL centration: the why's and the how's." Presented at the 76th Annual Meeting and Exhibition of the Canadian Ophthalmology Society, Montreal, Canada. Jun 2013.

"Understanding IOL optics." Presented at the 76th Annual Meeting and Exhibition of the Canadian Ophthalmology Society, Montreal, Canada. Jun 2013.

"Accurate IOL power calculations through repeated biometry." Presented at the 76th Annual Meeting and Exhibition of the Canadian Ophthalmology Society, Montreal, Canada. Jun 2013.

"Reviewing ANSI standards for outcomes with toric lenses." Presented at "Maximizing outcomes with premium IOLs through ideal toric alignment and corneal astigmatism management," an EyeWorld Educational Symposium. San Francisco, CA. Apr 2013.

"Waxing on about chromatic aberration and IOL optics." Presented at Vanguard Ophthalmology Society Annual Meeting. Ft. Lauderdale, FL. Feb 2013.

"IOL centration: Capsule size and shape, or IOL position at end of surgery?" Presented at "Refractive Surgery 2012: The Era of Lasers and Lenses"—The Annual Meeting of ISRS. Chicago, IL. Apr 2012.

"Visual outcomes and patient satisfaction with the Tecnis Multifocal IOL." Presented at "Clinical outcomes and strategies for success with the Tecnis Multifocal IOL" at the American Society of Cataract and Refractive Surgery Symposium and Congress, Chicago, IL. Apr 2012.

"Accurate centration of the TECNIS Multifocal IOL." Presented at "Optimizing outcomes with the TECNIS Multifocal IOL" at the American Academy of Ophthalmology Annual Meeting, Orlando, FL. Oct 2011.

"Clinical experience with the Tecnis Multifocal IOL 1-Piece." Presented at "Advancement in Cataract" at The Fourth Global Chinese Ophthalmic Conference/The 16th Congress of the Chinese Ophthalmological Society, Guangzhou, China. Sep 2011

"Maximizing clinical outcomes and happy patients with the Tecnis Multifocal IOL." Presented at the Hawaiian Ophthalmological Society May 2011 Meeting, Honolulu, HI. May 2011.

"Comparative clinical data with the Tecnis Multifocal, Acrysof IQ ReSTOR, and the Crystalens IOLs." Presented at EyeWorld's "Maximizing outcomes with the Tecnis Multifocal IOL" at the American Society of Cataract and Refractive Surgery Symposium & Congress, San Diego, CA. Mar 2011.

"The presbyopic lens based patient." Presented at the Young Physicians & Residents Symposium, "In the Clinic with the Experts" at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2007.

"Corneal refractive surgery challenging cases." Presented at the Young Physicians & Residents Symposium, "In the Clinic with the Experts" at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Mar 2006.

"Finding a job and transitioning into practice." Presented during Job Fest at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Mar 2006.

"Multifocal intraocular lenses." Presented at the Young Physicians & Residents Symposium on Refractive and Cataract Surgery at the American Society of Cataract and Refractive Surgery Symposium and Congress, Washington DC. Apr 2005.

"What the young ophthalmologist needs to know when looking for the perfect job." Presented at the Advanced Medical Optics Educational Forum at the American Academy of Ophthalmology Annual Meeting, New Orleans, LA. Oct 2004.

Chang DH and Stulting RD. "Mycobacterial keratitis following LASIK enhancement." Presented at the First Annual Ophthalmology Times Resident Writer's Award Program at the American Academy of Ophthalmology Annual Meeting, Anaheim, CA. Nov 2003.

PAPER PRESENTATIONS

Weeber HA, **Chang DH**, Piers PA. Measured chromatic aberration of Intraocular Lenses. Presentation at the American Society of Cataract and Refractive Surgery Symposium and Congress, New Orleans, LA. May 2016.

Chang DH. Comparative contralateral clinical outcomes of two aspheric monofocal IOLs. Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, New Orleans, LA. May 2016.

Weeber HA, **Chang DH**, van der Mooren M, Lowery MD, Graver J, Piers PA. Abbe numbers and chromatic aberration of a large group of intraocular lens designs. Presented (on behalf of Weeber HA) at the Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA. May 2016.

Weeber HA, Alarcon A, **Chang DH**, Piers PA. Correlating clinical outcomes and experimental results of presbyopia correcting IOLs. Presentation at the XXXIII Congress of the European Society of Cataract and Refractive Surgery, Barcelona, Spain. Sep 2015.

Chang DH. Clinical investigation of expanded designs of an aspheric diffractive multifocal low-add 1-piece IOL (+2.75 D and +3.25 D). Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2015.

Chang DH. The relationship of diffractive multifocal IOL centration with angle kappa and visual acuity. Presented at the XXXII Congress of the European Society of Cataract and Refractive Surgery, London, England. Sep 2014.

Weeber HA, **Chang DH**, Piers PA. Laboratory evaluation of depth of focus for presbyopia correcting IOLs. Presentation at the XXXII Congress of the European Society of Cataract and Refractive Surgery, London, England. Sep 2014.

Chang DH. Multicenter registry of patient outcomes and surgeon experience with an aspheric diffractive multifocal one-piece IOL. Presented at the XXXII Congreso Mexicano de Oftalmología, Cancún, Mexico. Jun 2014.

Weeber HA, **Chang DH**, Piers PA. Evaluation of the depth of focus of different IOL designs. Presentation at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

Langeslag M, Weeber HA, **Chang DH**, Piers PA. Influence of add power on the characteristics of diffractive multifocal IOLs. Presentation at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

Chang DH. The relationship of angle kappa with diffractive multifocal IOL centration and visual acuity. Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

Langeslag M, Weeber HA, **Chang DH**, Piers PA. How are optical characteristics influenced by the add power of diffractive multifocal intraocular lenses? Presentation at the XXXI Congress of the European Society of Cataract and Refractive Surgery, Amsterdam, Netherlands. Oct 2013.

Chang DH. Multicenter evaluation of patient outcomes and surgeon experience with an aspheric diffractive multifocal one-piece IOL. Presented at the XXXI Congress of the European Society of Cataract and Refractive Surgery, Amsterdam, Netherlands. Oct 2013.

Chang DH. Intermediate and near visual acuity in photopic and mesopic lighting conditions with an aspheric diffractive multifocal one-piece IOL. Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Apr 2013. Best Paper of Session (BPOS).

Chang DH. Distance, intermediate, and near visual outcomes under photopic and mesopic lighting conditions with an aspheric diffractive multifocal one-piece IOL. Presented at the XXX Congress of the European Society of Cataract and Refractive Surgery, Milan, Italy. Sep 2012.

Chang DH and Davis EA. Evaluation of patient outcomes and satisfaction with an aspheric diffractive multifocal one-piece IOL. Presented at the XXX Congress of the European Society of Cataract and Refractive Surgery, Milan, Italy. Sep 2012.

Chang DH. Comparative distance and near visual acuity outcomes with diffractive multifocal and accommodating IOLs. Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, Chicago, IL. Apr 2012.

Chang DH. Centering diffractive multifocal IOLs with intraoperative use of Purkinje images. Presented at Refractive Surgery Subspecialty Day 2011. Precision in Vision: The Latest in Cornea and Lens-Based Refractive Surgery—The ISRS Annual Meeting. Orlando, FL. Oct 2011.

Chang DH, Stulting RD. Lamellar Flap and Tissue Ablation Components of the LASIK-induced Decrease in Intraocular Pressure Measurements. Presented at the ISRS/AAO 2005 Refractive Surgery Subspecialty Day, Chicago, IL. Oct 2005.

Chang DH, Hardten DR, Lindstrom RL, Davis EA. Wavefront-guided enhancement for residual myopia and astigmatism after LASIK. Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, Washington DC. Apr 2005.

Chang DH and Stulting RD. Change in intraocular pressure readings following LASIK: The effect of the refractive correction and the lamellar flap. Presented at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. May 2004.

Everts RJ, Fowler WC, **Chang DH**, Reller LB. Are donor corneoscleral rim cultures useful in the care of patients after corneal transplantation? Abstr C74. Presentation at the 98th General Meeting of the American Society for Microbiology 1998, p. 143.

Myers NV, Schell WA, Perfect JR, **Chang DH**, Fowler WC. Antifungal activity of polyhexamethylene biguanide solution versus agents of fungal keratitis. Presentation at the 38th Interscience Conference on Antimicrobial Agents and Chemotherapy, 1998.

POSTER PRESENTATIONS

Chang DH, Weeber HA, Lowery MD, Piers PA. Chromatic aberration of intraocular lens measured *in vitro* and *in vivo*. Poster at the Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA. May 2016.

Chang DH. Multicenter clinical evaluation of an aspheric diffractive multifocal one-piece IOL. Poster at the Association for Research in Vision and Ophthalmology Annual Meeting, Seattle, WA. May 2013.

Chang DH. The effect of lighting conditions on near and intermediate visual acuity with two diffractive multifocal IOLs. E-Poster at "Refractive Surgery 2012: The Era of Lasers and Lenses"—The Annual Meeting of ISRS, Chicago, IL. Nov 2012.

Chang DH. Centration stability of a one-piece aspheric diffractive multifocal IOL. Poster at the Association for Research in Vision and Ophthalmology Annual Meeting, Ft. Lauderdale, FL. May 2012.

Chang DH, Hooper BA, Smith GD, et al. Spectroscopic determinations of *in vivo* and *ex vivo* corneal absorption. Poster at the Association for Research in Vision and Ophthalmology Annual Meeting, Ft. Lauderdale, FL, 1999.

White BC, Pfister-Serres A, Grinstaff MW, Springs CL, **Chang DH**, Fowler WC. Transplanting corneal grafts with a laser activated polymer. Poster at the Association for Research in Vision and Ophthalmology Annual Meeting, Ft. Lauderdale, FL, 1999.

Fowler WC, **Chang DH**, Proia AD, et al. The free electron laser: a system capable of determining the gold standard in laser vision correction. Poster at the 20th International Free Electron Laser Conference, Williamsburg, VA, 1998.

Fowler WC, **Chang DH**, Proia AD, et al. Systematic infrared ablations with the Mark III FEL at 2.94 μm in a novel corneal wound healing model. Poster at the 20th International Free Electron Laser Conference, Williamsburg, VA, 1998.

FILM/VIDEO PRESENTATIONS

Chang DH. That (capsule) was broken when I got here. Presented at the 76th Annual Meeting and Exhibition of the Canadian Ophthalmology Society, Montreal, Canada. Jun 2013.

Chang DH. Managing Iris Prolapse when Sealing the Wound During Cataract Surgery. Scientific Film at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Apr 2013. ASCRS Scientific Film Festival Awards Runner-Up—Cataract Complications.

Chang DH. Cutting edge surgery on a posterior polar cataract. Presented at the “Complicated and Challenging Cases in Cataract Surgery Video Symposium” at the American Society of Cataract and Refractive Surgery Symposium and Congress, Chicago, IL. Apr 2012.

Chang DH. Intraoperative Determination of Intraocular Lens Centration with Purkinje Images. Video at the American Academy of Ophthalmology Annual Meeting, Orlando, FL. Oct 2011.

INVITED PANELIST SESSIONS

Session 4: Broadening the Premium Channel. “Case 2: Toric power surprise.” American-European Congress of Ophthalmic Surgery Summer Meeting, Deer Valley UT. Jul 2016.

“3-O Cataract/Presbyopia: Multifocal IOLs.” American Society of Cataract and Refractive Surgery Symposium and Congress, New Orleans, LA. May 2016.

“Package pricing for IOLs: Ala carte vs bundle.” American-European Congress of Ophthalmic Surgery Summer Meeting, Deer Valley UT. Jul 2015.

“3-O Cataract: Secondary IOLs.” American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2015.

“Cataract complications—video cases—You make the call.” ASCRS co-sponsored symposium at the Asia-Pacific Academy of Ophthalmology Congress, Cataract Subspecialty Day, Guangzhou, China. Mar 2015.

“The evolving refractive cataract procedure: a look at modern lens extraction and advanced IOL technologies.” Abbott Medical Optics Breakfast Symposium at the American Academy of Ophthalmology Annual Meeting, Chicago, IL. Oct 2014.

“Intraocular Surgery: Presbyopia-Correcting IOLs.” American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

“Premium lens design for high quality visual outcomes with a new preloaded delivery system.” Abbott Medical Optics Speakers Forum at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

“Customized premium lens outcomes combined with a new preloaded delivery system.” Abbott Medical Optics Speakers Forum at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

“IOL customization and premium lens design for high-quality visual outcomes.” Abbott Medical Optics Speakers Forum at the American Academy of Ophthalmology Annual Meeting, New Orleans, LA. Nov 2013.

“Getting a Grip on IOL Calculations.” Abbott Medical Optics Resident iTeam Cataract Learning Program at the 76th Annual Meeting and Exhibition of the Canadian Ophthalmology Society, Montreal, Canada. Jun 2013.

"Intraocular Surgery: Presbyopia-Correcting IOLs." American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Apr 2013.

"Intraocular Surgery: Surgical Techniques." American Society of Cataract and Refractive Surgery Symposium and Congress, Chicago, IL. Apr 2012.

"Cornea: Corneal Therapies" American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2007.

INSTRUCTIONAL COURSES AND SKILLS TRANSFER LABS

Chang DH, Waring IV GO, Berdahl JP. Senior instructor: Achieving proper centration and alignment for vision correction in keratorefractive and intraocular surgery. Instructional course at the American Academy of Ophthalmology Annual Meeting, Chicago, IL. Oct 2016.

Gupta PK, Wortz G, Lee J, Raju L, **Chang DH**, and DeStafeno JJ. Instructor: Corneal considerations in cataract surgery: preoperative pearls to prevent postop peril—Assessing stability through repeated biometry. Instructional course at the American Society of Cataract and Refractive Surgery Symposium and Congress, New Orleans, LA. May 2016.

Chang DH, Waring IV GO, Greenwood M. Senior instructor: Achieving proper centration and alignment in intraocular and keratorefractive surgery. Instructional course at the American Society of Cataract and Refractive Surgery Symposium and Congress, New Orleans, LA. May 2016.

Chang DH, Rocha KM, Perez-Straziota C. Senior instructor: Assessing vision beyond Snellen acuity: what cataract surgeons need to know about optical quality. Instructional course at the American Academy of Ophthalmology Annual Meeting, Las Vegas, NV. Nov 2015.

Chang DH, Waring IV GO, Berdahl JP. Senior instructor: Achieving proper centration and alignment for vision correction in keratorefractive and intraocular surgery. Instructional course at the American Academy of Ophthalmology Annual Meeting, Las Vegas, NV. Nov 2015.

Gupta PK, Wortz G, Lee J, Raju L, **Chang DH**, and DeStafeno JJ. Instructor: Corneal considerations in cataract surgery: preoperative pearls to prevent postop peril—Assessing stability through repeated biometry. Instructional course at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2015.

Chang DH, Waring IV GO, Berdahl JP. Senior instructor: Achieving proper centration and alignment for vision correction in intraocular and keratorefractive surgery. Instructional course at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Diego, CA. Apr 2015.

Chang DH, Yeu E. Chief instructor: Refractive Cataract/IOL Surgery—Improving Your Skills. Instructional course at the Asia-Pacific Academy of Ophthalmology Congress, Guangzhou, China. Apr 2015.

Chang DH, Waring IV GO, DeStafeno JJ. Senior instructor: Achieving proper centration and alignment for vision correction in keratorefractive and intraocular surgery. Instructional course at the American Academy of Ophthalmology Annual Meeting, Chicago, IL. Oct 2014.

Chang DH, Waring IV GO, Berdahl JP. Senior instructor: Achieving proper centration and alignment in intraocular and keratorefractive surgery. Instructional course at the American Society of Cataract and Refractive Surgery Symposium and Congress, Boston, MA. Apr 2014.

Chang DH, Waring IV GO, DeStafeno JJ. Senior instructor: Achieving proper centration and alignment for vision correction in keratorefractive and intraocular surgery. Instructional course at the American Academy of Ophthalmology Annual Meeting, New Orleans, LA. Nov 2013.

Chang DH, Waring IV GO, Berdahl JP. Lead instructor: Achieving proper centration and alignment in intraocular and keratorefractive surgery. Course at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Apr 2013.

Laboratory instructor: Advanced Refractive Cataract Surgery and Anterior Segment Reconstruction. Skills Transfer Lab at the American Academy of Ophthalmology Annual Meeting, Chicago, IL. Nov 2012.

Laboratory instructor: Phacoemulsification and Advanced Techniques Lab for Ophthalmology Residents. Skills Transfer Lab at the American Academy of Ophthalmology Annual Meeting, Orlando, FL. Oct 2011.

Laboratory instructor: Phacoemulsification Lab for Ophthalmology Residents. Skills Transfer Lab at the American Academy of Ophthalmology Annual Meeting, Chicago, IL. Oct 2010.

Laboratory co-instructor: O.R. Time On Your Own Time. Skills Transfer Session at the American Society of Cataract and Refractive Surgery Symposium and Congress, San Francisco, CA. Apr 2009.

Laboratory instructor: Phacoemulsification Lab for Residents. Skills Transfer Lab at the American Academy of Ophthalmology Annual Meeting, New Orleans, LA. Oct 2004.

ACTIVITIES

Director, Producer, and Editor for the 2004 Emory Residents' Day Video
Duke Men's Volleyball USAV Team/Caltech Men's Volleyball Club Team
Caltech Men's NCAA Basketball Team
Taekwondo Black Belt
Past President, Caltech Christian Fellowship/Duke Christian Medical and Dental Society
Founder and Past President, Caltech Premed Club
Eagle Scout Rank