

Shu-Hong Holly Chang, MD

Office:

University of Washington Eye Institute
Harborview Medical Center
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Education

2000-2004 M.D., Johns Hopkins University School of Medicine, Baltimore, MD
1996-2000 B.A., Duke University, Angier B. Duke scholar, Durham, NC
Summa cum laude Program II, certificate in genetics

Postgraduate Training

2009-2011 Jules Stein Eye Institute/UCLA, Los Angeles, CA
Fellowship in orbital and ophthalmic plastic and reconstructive surgery
2008-2009 Washington University in St. Louis, St. Louis, MO
Fellowship in ophthalmic pathology
2005-2008 Washington University in St. Louis, St. Louis, MO
Residency in ophthalmology
2004-2005 Mercy Medical Center/University of Maryland, Baltimore, MD
Internship in internal medicine

Faculty Positions Held

2011-present Assistant professor of ophthalmology
University of Washington, Seattle, WA
2009-2011 Clinical instructor of ophthalmology
Jules Stein Eye Institute/UCLA, Los Angeles, CA
2008-2009 Chief resident and clinical instructor of ophthalmology
Washington University in St. Louis, St. Louis, MO 2008-2009

Hospital Positions Held

Sept 2011-present **Faculty advisor**
University of Washington Eye Institute (UWEI) elective services business
plan and expansion

Jan 2012-present **Faculty co-leader**
UWEI strategic initiative for critical evaluation and complete revision of resident rotations during residency expansion

Honors

October 2011 **Harold A. Stein, MD Best Scientific Paper Runner-Up Prize**
Co-author on paper entitled: Refining the goals of oculofacial rejuvenation with dynamic ultrasonography. Awarded by the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO). American Academy of Ophthalmology (AAO) annual meeting, Orlando, FL

October 2011 **Best of Show Award**
Co-producer of "Management of cicatricial lower eyelid retraction using en-glove lysis and dermis strip graft" video. One of 9 videos selected for this honor from 150 submissions. AAO annual meeting, Chicago, IL

Jul 2007-Jul 2009 **Barnes Jewish Hospital Residents and Fellows Diversity Grant**
One of 25 residents selected hospitalwide to design and implement programs to enrich the cultural diversity of Barnes Jewish Hospital and the St. Louis community

December 2008 **Alpha Omega Alpha National Medical Honor Society**

February 2008 **Assoc of University Professors of Ophthalmology Research Forum**
One of 2 ophthalmology residents nationwide invited to present research at the annual AUPO meeting. This is a forum "intended to encourage the most promising house officers to pursue a career in academic ophthalmology and vision research"

May 2007 **Jay S. Pepose Young Investigator Award**
Awarded for outstanding resident research presented at ARVO by the Department of Ophthalmology, Washington University in St. Louis, St. Louis, MO

May 2007 **National Eye Institute Travel Grant**
Awarded for outstanding research in Anatomic Pathology by Association for Research in Vision and Ophthalmology (ARVO), Ft. Lauderdale, FL

September 2006 **Heed Ophthalmic Foundation Residency Retreat**
One of 25 residents chosen nationwide to attend this event "to promote academic careers among residents of exceptional promise for academic ophthalmology." The Airlie House, Warrenton, VA

2001-2004 **Mary & Benjamin M. Rubin Scholarship**
Competitive merit and need-based Maryland statewide scholarship

2000-2004 **Johns Hopkins Medical & Surgical Association Scholarship**
Carroll J. Johns, MD Scholar
Four year merit and need-based scholarship awarded to 5 students

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| 2001-2002 | <i>Albert Schweitzer Fellowship</i> Awarded grant to implement a novel community service project. |
| 2001-2002 | <i>Johns Hopkins Univ Alumni Association Community Service Grant</i> Johns Hopkins University School of Medicine, Baltimore, MD |
| 2001-2002 | <i>Edith Coale, MD Scholarship</i> Zonta Club of Washington merit & need scholarship, Washington, DC |
| 2001-2002 | <i>National Alliance for Excellence, Inc.</i> Honored Scholars & Artists Program finalist |
| Jun 2001-Aug 2001 | <i>American Federation for Aging Research fellowship</i> Quality of life research in rheumatoid arthritis patients Johns Hopkins Bayview Campus, Baltimore, MD |
| 1996-2000 | <i>Angier B. Duke Memorial Scholarship</i> Four-year full-tuition merit scholarship awarded to 15 of ~15,000 applicants, Duke University, Durham, NC |
| 1996-2000 | <i>Organization of Chinese Americans Distinguished Scholarship</i> Merit scholarship awarded to two applicants nationwide |
| Summer 1999 | <i>Lord Rothmere Scholar</i> Full merit scholarship to study Victorian literature, Oxford University, UK |
| May 1999 | <i>Lars Lyons Community Service Award</i> Highest service honor given to one Duke University student yearly |

Board Certification

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| Dec 12, 2012 | American Society of Ophthalmic Plastic & Reconstructive Surgery |
| June 6, 2010 | American Board of Ophthalmology |

Professional Organizations

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| 2012-present | Pacific Coast Oto-Ophthalmological Society (PCOOS) |
| 2011-present | Washington State Academy of Eye Physicians & Surgeons (WAEPS) |
| 2010-present | Asia Pacific Society of Ophth Plast & Reconstr Surgery (APSOPRS) |
| 2009-present | American Society of Ophth Plast & Reconstr Surgery (ASOPRS) |
| 2009-present | International Society for Ophthalmic Pathology (ISOP) |
| 2008-present | Alpha Omega Alpha medical honor society (AOA) |
| 2008-present | American Academy of Ophthalmic Oncologists & Pathologists (AAOOP) |
| 2006-present | Association for Research in Vision and Ophthalmology (ARVO) |
| 2005-present | American Academy of Ophthalmology (AAO) Floor manager at 2009 annual meeting |

Teaching Responsibilities

University of Washington/Regional

Associate fellowship director

University of Washington ASOPRS oculofacial & orbital surgery fellowship, September 2011 – present

Faculty lecturer & lab instructor

Lesley Watson ISIS Resident Surgical Simulation Course Facial Plastic and Reconstructive Surgery, University of Washington School of Medicine, Seattle, WA

Dec 14-16, 2011

Nov 15-16, 2012

Faculty lecturer & lab instructor

University of Washington Eye Institute Annual Orbital Dissection Course, July 2012

Lecturer

Modern Medicine of the Eye lecture series, UW Eye Institute, September 20, 2012.

Co-Director of BCSC ophthalmic pathology resident teaching course

The Basic and Clinical Science Course (BCSC) is the core didactic curriculum for all ophthalmology residents in the US, published by the AAO, April 2012-present

Director of resident introductory lecture series on Oculoplastic Surgery

Introductory lecture series for beginning residents, July 13, 2012.

Faculty leader, Continuous Quality Improvement (CQI)

Departmental monthly morbidity & mortality conference, May 10, 2012.

Faculty, medical student teaching session

Two hour case review session with medical students on the ophthalmology elective rotation, April 19, 2012, Jan 3, 2013,

Ophthalmic Knowledge Assessment Program (OKAP) review for residents

Ophthalmic pathology review in preparation for annual in-service examination, March 26, 2012.

National and International

Guest lecturer, Department of Biomedical Engineering, Imperial College of London

Lacrimal drainage system challenges for the oculoplastic surgeon. June 7, 2012.

Oculoplastic surgery invited contributor

Contribute review questions for www.opthoquestions.com, an ophthalmology board review website, March 2012–present.

Lecturer

Oculoplastic surgery section. Jules Stein Eye Institute/Doheny Eye Institute board examination review course, Los Angeles, CA, February 25-27, 2011.

Faculty instructor

UCLA/Loma Linda Facial Plastic Surgery Cadaver Dissection Course, Los Angeles, CA, April 17, 2011

Faculty lecturer & lab instructor

Aesthetic Assessment for Oculofacial Rejuvenation.

Asia-Pacific Academy of Ophthalmology (APAO)/AAO annual meeting, Beijing, China. September 18, 2010.

Faculty lecturer & lab instructor

Advanced Techniques in Orbital Decompression and Expansion, APAO/AAO annual meeting, Beijing, China, September 18, 2010.

Continuing Medical Education

Faculty, University of Washington Eye Institute Grand Rounds

January 12, 2012 – Carotid-Cavernous fistulas

April 3, 2012 – Postop vision loss after optic canal ring decompression

Faculty instructor

Aesthetic Eyelid and Orbitofacial Surgery: Options and Finesse, Jules Stein Eye Institute/UCLA, Los Angeles, CA. Lectured and instructed in cadaver dissection lab for one weekend in July, 2009-2011.

Faculty lecturer & lab instructor

Advanced Techniques in Orbital Decompression and Expansion.

AAO annual meetings, Chicago, IL, Oct 26, 2009; San Francisco, CA, Oct 18, 2010; Chicago, IL Nov 13, 2012.

Mentorship

International observers

Lih-Ching Lai, MD. Medical Consultant Ophthalmologist from Show-Chuan Healthcare, Lukang, Chungwha, Taiwan, July 15-July 25, 2012.

Physician mentor

Summer Medical Dental Education Program (SMDEP), Summer 2012.

Faculty co-mentor for resident research Randall A. Bly, resident in otolaryngology.

American Head and Neck Society Ballantyne Resident Research Grant submitted, pending review. Awarded the 2012-2013 University of Washington Housestaff Association research grant.

Founder and faculty leader, Oculoplastic Surgery Research Group (OSRG)

Monthly meetings of faculty, fellows, residents, and medical students engaging in oculoplastic surgery related research.

Lecturer

Spoke to premedicine track students at UCLA regarding the profession of medicine and the specialty of ophthalmology, 2009-2011.

Editorial Responsibilities

Dec 2010-present Ophthalmic plastic and reconstructive surgery journal ad hoc reviewer

Special National Responsibilities

May 2012-present Member, ASOPRS Multicenter Collaborative Research Committee

Research Funding

2011-present ***UWEI new faculty research grant.***

Total costs: \$50,000/year for 3 years, 2011-present.

Apr 2009-Jul 2010 ***Cosmetic Surgery Foundation Grant***

Awarded competitive grant for project titled "Ultrasound study of eyelid mobility before and after blepharoplasty and injectable fillers." Cosmetic Surgery Foundation, Chicago, IL, April 2009-July 2010.

Total costs: \$11,000

Apr 2010-Jul 2011 ***Robert E. Christensen, M.D. Research Award***

Awarded competitive grant to study the role of IgG4 in orbital inflammatory disease. Jules Stein Eye Institute, Los Angeles, CA

Total costs: \$1,250.

Bibliography

Manuscripts

Bly RA, **Chang S-H**, Cudejkova M, Liu JJ, Moe KS. Computer-guided orbital reconstruction improves outcomes: an analysis of 113 consecutive cases. Accepted for publication by *Archives of Facial Plastic Surgery*.

Papageorgiou KI, Ang M, **Chang SH**, Kohn J, Martinez S, Goldberg RA. Aesthetic considerations in upper eyelid retraction surgery. *Ophthal Plast Reconstr Surg* 2012;28(6):419-23.

Papageorgiou K, **Chang HS**, Isaacs D, Fiaschetti D, Ang M, Goldberg RA. Refining the goals of oculofacial rejuvenation with dynamic ultrasonography. *Aesthet Surg J* 2012;32(2):207-219.

Papageorgiou KI, Hwang CJ, **Chang SH**, Jarullazada I, Chokron Garneau H, Ang MJ, King AJ, Mancini R, Douglas RS, Goldberg RA. Thyroid associated periorbitopathy: eyebrow fat and soft tissue expansion in patients with thyroid associated orbitopathy. *Arch Ophthalmol* 2012 Mar;130(3):319-28.

Papageorgiou KI, Mancini R, Garneau HC, **Chang SH**, Jarullazada I, King A, Forster-Perlini E, Hwang C, Douglas R, Goldberg RA. A three-dimensional construct of the aging eyebrow: the illusion of volume loss. *Aesthet Surg J* 2012;32(1):46-57.

Patel DA, Harocopos GJ, **Chang SH**, Vora SC, Lubniewski AJ, Huang AJW. Novel *CHST6* gene mutations in 2 unrelated cases of macular corneal dystrophy. *Cornea* 2011;30:664-669.

Patel DA, **Chang SH**, Harocopos GJ, Vora S, Thang DH, Huang AJW. Granular and lattice deposits in corneal dystrophy caused by R124C mutation of TGFBI. *Cornea* 2010;29:1215-1222.

Chang SH, Custer PL, Mohadjer Y, Scott EA. The Use of Lorenz® Titanium Implants in Orbital Fracture Repair. *Ophthal Plast Reconstr Surg* 2009;25(2):119-22.

Chang SH, Worley MA, Onken MD, Smith ME, Harbour JW. Prognostic biomarkers in uveal melanoma: evidence for a stem-cell like phenotype associated with metastasis. *Melanoma Res* 2008;18(3):191-200.

Chang SH, Miller NR. The incidence of vision loss due to postoperative ischemic optic neuropathy associated with spine surgery: the Johns Hopkins Hospital experience. *Spine* 2005;30(11):1299-302.

Books, videos, software

Chang SH. Orbit/Plastics: Part 2.3 VIDEO/AUDIO. *Comprehensive Ophthalmology Review*. Doheny Eye Institute and Jules Stein Eye Institute Office of Continuing Medical Education, David Geffen School of medicine at UCLA. May 2011-May 2014.

Chapters

Chang SH, Shorr N. Full thickness eyelid resection for blepharoptosis correction. In: Cohen AJ, Weinberg DA., eds. *Evaluation and Management of Blepharoptosis*. New York: Springer; 2011.

Others

Chang SH, Douglas RS. Novel ways to attack inflammation in thyroid eye disease. *Expert Rev Ophthalmol* 2010;5(3):277-281.

Miller NR, **Chang SH**. Letters. *Spine* 2005;30(23):2707.

Manuscripts submitted

Chang SH, Papageorgiou KI, Ang M, King A, Goldberg RA. High resolution ultrasound as an effective and practical tool to analyze eyebrow profile expansion in thyroid associated periorbitopathy. Submitted to *Ophthal Plast Reconstr Surg*.

Kim HY, **Chang SH**. An unusual case of enophthalmos in subcutaneous panniculitis-like T cell lymphoma. Pending submission to *Ophthal Plast Reconstr Surg*.

Ang MJ, Papageorgiou KI, **Chang SH**, Kohn J, Chokron-Garneau H, Goldberg RA. Topical Plasminogen as an Adjunctive Treatment in Recurrent Ligneous Conjunctivitis. Pending submission to *Ophthalmology*.

Zhang-Nunes SX, Dang S, Chokron-Garneau H, Hwang CJ, Isaacs DK, **Chang SH**, Goldberg RA. Characterization and outcomes of repeat orbital decompression for thyroid associated orbitopathy. Pending submission to *JAMA Ophthal*.

Poster and Presentations

Bly RA, **Chang S-H**, Cudejkova M, Liu JJ, Moe KS. Computer-Guided Orbital Reconstruction Improves Outcomes. Accepted for podium presentation at American Academy of Facial Plastic and Reconstructive Surgery annual meeting, Orlando, FL, April 2013.

Chappell MC, Jian-Amadi A, **Chang SH**. The Use of Systemic Steroids as Adjuvant Treatment of Orbital Cellulitis in Adults. Podium presentation at the ASOPRS annual fall meeting, Chicago, Nov 2012.

Goyal S, Chappell MC, Jian-Amadi A, **Chang SH**. Diffusion of Retrobulbar Injections: a Study in Patients Undergoing Enucleation. Podium presentation at the ASOPRS annual fall meeting, Chicago, Nov 2012.

Chappell MC, Jian-Amadi A, Moe K, **Chang SH**. Use of the SONOPET® Ultrasonic Aspirator in Endoscopic Dacryocystorhinostomy. Podium presentation at the ASOPRS annual fall meeting, Chicago, Nov 2012.

Hwang C, Fitzgerald R, Shorr N, Duckwiler G, **Chang SH**, Goldberg RA. Ischemic Complications of Soft Tissue Fillers: Cases and Concepts. Podium presentation at the ASOPRS annual fall meeting, Chicago, Nov 2012.

Pointdujour R, Temnogorod J, Kartvelishvili A, Mancini R, **Chang SH**, Shah S, Ilya L, Esmaeli B, Shinder R. Acute Orbital Syndrome in Herpes Zoster Ophthalmicus. Podium presentation at the ASOPRS annual fall meeting, Chicago, Nov 2012.

Taban M, **Chang SH**, Shorr N, Goldberg R. Blepharoptosis surgery in multioperated eyelid using full-thickness eyelid resection – a powerful technique. Poster presentation at the ASOPRS annual fall meeting, Chicago, Nov 2012.

Randall A Bly, David Su, **Holly Chang**, Blake Hannaford, Manuel Ferreira, Kris S Moe. “Computer Modeled Multiportal Approaches to the Skull Base.” Alumni Day, University of Washington Department of Otolaryngology, Seattle, WA, Jun 15, 2012.

Goyal S, Slabaugh M, **Chang SH**. Thyroid eye disease with compressive optic neuropathy: decompression versus radiation. Poster presentation at University of Washington Department of Ophthalmology 38th Annual Resident Alumni Day, Seattle, WA, June 16, 2012.

Beardsley RM, **Chang SH**. Treatment resistant Molluscum Contagiosum in an immunocompromised patient. Podium presentation at the Cosmetic Surgery Forum annual meeting, Las Vegas, Dec 2011.

Papageorgiou KI, Goldberg RA, **Chang SH**, Ang M. Dynamic ultrasonographic imaging of eyelid anatomy and physiology. Video presentation at AAO annual meeting, Orlando, Oct 2011.

Kartvelishvili A, Mancini R, **Chang SH**, Shinder R. Acute orbital syndrome in herpes zoster ophthalmicus. Poster presentation at AAO annual meeting, Orlando, Oct 2011.

Hwang CJ, Suh J, **Chang SH**, Papageorgiou KI, Isaacs DK, Taban MR, Goldberg RA. Nasal floor mucosa: new donor site for mucous membrane grafts. Podium presentation at ASOPRS annual fall meeting, Orlando, Oct 2011.

Kartvelishvili A, Mancini R, **Chang SH**, Shinder R. Acute orbital syndrome in herpes zoster ophthalmicus. Podium presentation at ASOPRS annual fall meeting, Orlando, Oct 2011.

Papageorgiou KI, Ang M, **Chang SH**, Chokron-Garneau H, Lin J, Goldberg RA. Refining cosmetic outcomes of posterior eyelid retraction surgery in thyroid associated orbitopathy. Podium presentation at ASOPRS fall meeting, Orlando, Oct 2011.

Papageorgiou KI, **Chang SH**, Ang M, Hwang CJ, Goldberg RA. Refining the goals of periocular facial rejuvenation with dynamic ultrasonography. Podium presentation at ASOPRS fall meeting, Orlando, Oct 2011.

Ang MJ, Papageorgiou KI, **Chang SH**, Kohn J, Chokron-Garneau H, Goldberg RA. Topical Plasminogen as an Adjunctive Treatment in Recurrent Ligneous Conjunctivitis. Poster presentation at ASOPRS fall meeting, Orlando, Oct 2011.

Dang S, **Chang SH**, Papageorgiou KI, Goldberg RA. Quantitative motion analysis of orbital adipose tissue using high-resolution ultrasound. Poster presentation at ASOPRS fall meeting, Orlando, Oct 2011.

Papageorgiou KI, **Chang SH**, Hwang CJ, Isaacs DK, Kohn J, Goldberg RA. Thyroid associated periorbitopathy (TAP): a 3D and dynamic ultrasonographic study in patients with TAO. Poster presentation at ASOPRS fall meeting, Orlando, Oct 2011.

Zhang-Nunes S, **Chang SH**, Hwang CJ, Goldberg RA. Local recurrence of orbital monosomy 3 positive melanoma post-exenteration. Poster presentation at ASOPRS annual fall meeting, Orlando, Oct 2011.

Papageorgiou KI, **Chang SH**, Ang M, Hwang CJ, Goldberg RA. The role of dynamic ultrasonography in oculoplastic surgery. Accepted for podium presentation at the European Society of Ophthalmic Plastic and Reconstructive Surgery (ESOPRS) annual meeting, Cernobbio, Italy, Sept 2011.

Papageorgiou KI, **Chang SH**, Ang M, Hwang CJ, Goldberg RA. Thyroid associated periorbitopathy (TAP): eyebrow fat and soft tissue expansion in patients with thyroid associated orbitopathy (TAO). Accepted for poster presentation at ESOPRS annual meeting, Cernobbio, Italy, Sept 2011.

Papageorgiou KI, **Chang SH**, Hwang CJ, Goldberg RA. Dynamic ultrasonographic imaging of eyelid anatomy and physiology. Accepted for video presentation at ESOPRS annual meeting, Cernobbio, Italy, Sept 2011.

Papageorgiou KI, Ang M, **Chang SH**, Chokron-Garneau H, Goldberg RA. Topical plasminogen as an adjunctive treatment in recurrent ligneous conjunctivitis. Accepted for poster presentation at ESOPRS annual meeting, Cernobbio, Italy, Sept 2011.

Papageorgiou KI, Fiaschetti D, **Chang SH**, Hoening J, Goldberg RA. The brassiere suture: 3D recontouring of eyebrows in upper blepharoplasty. Accepted for poster presentation at ESOPRS annual meeting, Cernobbio, Italy, Sept 2011.

Papageorgiou KI, Ang M, **Chang SH**, Chokron-Garneau H, Hwang CJ, Goldberg RA. Refining cosmetic outcomes of posterior eyelid retraction surgery in thyroid associated orbitopathy. Accepted for poster presentation at ESOPRS annual meeting, Cernobbio, Italy, Sept 2011.

Zhang-Nunes S, **Chang SH**, Hwang CJ. Local recurrence of orbital monosomy 3 positive melanoma post-exenteration. Podium presentation at Women in Ophthalmology (WIO) meeting, Sonoma, CA, August 7, 2011.

Zhang-Nunes SX, Dang S, Chokron-Garneau H, Hwang CJ, Isaacs DK, **Chang SH**, Goldberg RA. Characterization and outcomes of repeat orbital decompression for thyroid associated orbitopathy. Poster presentation at WIO meeting, Sonoma, CA, Aug 6, 2011.

Chang SH, Goldberg RA, Shorr N. Treatment of volume collapse in lower eyelid retraction: intraconal fat transfer and en-glove retractor lysis. Podium presentation at American Academy of Cosmetic Surgery (AACS) meeting, Phoenix, Jan 2011.

Chang SH, Papageorgiou K, Goldberg RA, Shorr N. High resolution ultrasound evaluation of periorbital volume augmentation. Podium presentation at AACS meeting, Phoenix, Jan 2011.

Chong KKL, Papageorgiou K, Jarullazada I, **Chang H**, Goldberg RA. Management of cicatricial lower eyelid retraction using en-glove lysis and dermis strip graft. Award-winning video presentation at AAO meeting, Chicago, Oct 2010.

Chang SH, Nguyen CT, Mancini R. Use of nasal turbinate graft in orbital reconstruction following radical exenteration. Platform presentation at ASOPRS meeting, Chicago, Oct 2010.

Papageorgiou K, Hwang C, Savar L, **Chang SH**, Mancini R, Jarullazada I, Chokron-Garneau H, Perlini EF, Goldberg R. A 3-D construct of eyebrow expansion in thyroid associated orbitopathy. Poster at ASOPRS meeting, Chicago, Oct 2010.

Papageorgiou K, Mancini R, Jarullazada I, Perlini EF, Chokron-Garneau H, **Chang SH**, Hwang C, Douglas R, Goldberg R. 3-D construct of eyebrow aging changes: establishing new volumetric insights on tissue interactions. Poster at ASOPRS meeting, Chicago, Oct 2010.

Chang SH, Lew H, Chong KK, Hwang CJ, Goldberg RA. Improved endoscopic forehead lift vectors using a central chevron-shaped incision. Video presentation at APAO/AAO joint meeting, Beijing, China, Sept 2010.

Chong K, Papageorgiou K, Hwang C, **Chang H**, Goldberg R, Douglas R. Marrow-derived, circulating, fibrocytes populate orbital tissues in thyroid associated ophthalmopathy. Platform presentation at APAO/AAO joint meeting, Beijing, China, Sept 17, 2010.

Chong K, Jarullazada I, Hwang C, **Chang H**, Mancini R, Goldberg R. Management options of deviated nasal septum during endonasal dacryocystorhinostomy. Platform presentation at APAO/AAO joint meeting, Beijing, China, Sept 17, 2010.

Chong K, **Chang H**, Hwang C, Lew H, Goldberg R, Douglas R. Rituximab as salvage therapy in severe, corticosteroid-resistant thyroid-associated ophthalmopathy. Platform presentation at APAO/AAO joint meeting, Beijing, China, Sept 17, 2010.

Hwang CJ, **Chang SH**, Chong K, Jarullazada I, Taban M, Goldberg R. The use of intralesional sodium morrhuate in orbital diseases. Poster at APAO/AAO joint meeting, Beijing, China, Sept 2010.

Chong K, **Chang H**, Hwang C, Papageorgiou K, Goldberg R, Douglas R. Size of extraocular muscle in classifying patients with thyroid associated ophthalmopathy. Poster at APAO/AAO joint meeting, Beijing, China, Sept 2010.

Chong K, Jarullazada I, **Chang H**, Hwang C, Mancini R, Goldberg R. Brow fat expansion in thyroid-associated orbitopathy: evidence and analysis. Poster at APAO/AAO joint meeting, Beijing, China, Sept 2010.

Hwang CJ, **Chang SH**, Lew H, Jarullazada I, Chong K, Goldberg R. Small incision surgery for involuntional lower eyelid entropion. Video presentation at APAO/AAO joint meeting, Beijing, China, Sept 2010.

Jarullazada I, Chong K, Mancini R, **Chang H**, Hwang C, Goldberg R. Temporalis tendon transfer: comparing transzygomatic against transbuccal approach. Video presentation at APAO/AAO joint meeting, Beijing, China, Sept 2010.

Lew H, Chong KK, **Chang HS**, Hwang CJ, Goldberg RA, Mancini R. Analysing cosmetic outcomes of ptosis surgeries. Platform presentation at APAO/AAO joint meeting, Beijing, China, Sept 17, 2010.

Chang S, Hwang CJ, Chong KKL, Douglas RS, Said J, Goldberg RA. Orbital and Brow Fat Histology in Thyroid-Associated Orbitopathy. Poster presentation at ARVO meeting, Ft. Lauderdale, FL, May 5, 2010.

Hwang CJ, **Chang SH**, Burt B, Goldberg RA. High resolution dynamic ultrasound: eyelid imaging. Poster presentation at ASOPRS fall meeting, San Francisco, CA, October 21-22, 2009.

Chang SH, Patel DA, Harocopos GJ, Thang DH, Huang AJW. Secondary hyalinosis/amyloidosis in macular corneal dystrophy. Platform presentation at ARVO meeting, Ft. Lauderdale, FL, May 07-11, 2009.

Huang AJW, Patel DA, Harocopos GJ, **Chang SH**, Thang DH. Subepithelial TGFBI deposits in Avellino corneal dystrophy. Platform presentation at ARVO meeting, Ft. Lauderdale, FL, May 07-11, 2009.

Chang SH, Mohadjer Y, Custer PL. The Use of Lorenz® Titanium Implants in Orbital Fracture Repair. Poster presentation at the ASOPRS fall meeting, New Orleans, LA, November 09-10, 2007.

Chang SH, Worley MA, Onken MD, Smith ME, Harbour JW. Prognostic biomarkers in class 2 uveal melanoma: evidence for a cancer stem cell phenotype? Poster presented at ARVO meeting, Ft. Lauderdale, FL, May 06-10, 2007.

Chang SH, Bartlett SJ, Bilderback A, Piedmont R, Matsumoto AK, Bathon JM. Spirituality and quality of life in persons with rheumatoid arthritis. Poster presented at the American Geriatrics Society annual meeting, Washington, DC, May 08-12, 2002.

Chang SH, Genovese RF, Gupta RK. Evaluating repellent efficacy through analysis of animal defensive behavior. Poster presented at Walter Reed Army Institute of Research Poster Day, Wash, DC, Aug 1997.

Acknowledgements

Chang SH. Histopathology photograph of conjunctival amyloidosis. In: Ophthalmic Pathology and Intraocular Tumors section, *Basic and Clinical Science Course*. San Francisco: American Academy of Ophthalmology; 2011.

Invited Lectureships

- June 7, 2012 Lacrimal drainage system challenges for the oculoplastic surgeon. Guest lecturer, Department of Biomedical Engineering, Imperial College of London, London, United Kingdom.
- June 2012 Use of ultrasonic bone aspiration in endoscopic lacrimal surgery: learning from our otolaryngology colleagues. PCOOS annual meeting, Lake Tahoe, June 2012.
- June 2012 Head and neck tumors affecting the orbit and periocular soft tissues. PCOOS annual meeting, Lake Tahoe, June 2012.
- Feb 14, 2011 Dept of Ophthalmology, University of California San Francisco, San Francisco, CA.
- Dec 17, 2010 Dept of Ophthalmology, Northwestern University, Chicago, IL.
- Nov 15, 2010 Vanderbilt Eye Institute, Vanderbilt University, Nashville, TN.
- Nov 3, 2010 Dept of Ophthalmology, University of Washington, Seattle, WA.
- Oct 25, 2010 Dept of Ophthalmology, University of Virginia, Charlottesville, VA.
- Sept 30, 2010 Kellogg Eye Center, University of Michigan, Ann Arbor, MI.
- April 9, 2010 Apical nerve mapping in adenoid cystic carcinoma. Orbit Society Meeting, Los Angeles, CA.
- February 8, 2010 Case presentations. Utah Facial Surgery Meeting, Park City, UT.
- July 30-31, 2010 Shorr N, Isaacs DK, **Chang SH.** Evisceration and enucleation. IV International Ophthalmology Course, Univ of Chile, Santiago, Chile.
- July 30-31, 2010 Shorr N, Isaacs DK, **Chang SH.** Addressing lower eyelid malpositions. IV International Ophthalmology Course, Univ of Chile, Santiago, Chile.
- July 30-31, 2010 Shorr N, Isaacs DK, **Chang SH.** Four stages of dysthyroid ophthalmopathy. IV International Ophthalmology Course, Univ of Chile, Santiago, Chile.
- July 30-31, 2010 Shorr N, Isaacs DK, **Chang SH.** Aesthetic considerations: structure, function, beauty. IV International Ophthalmology Course, Univ of Chile, Santiago, Chile.
- July 30-31, 2010 Shorr N, Isaacs DK, **Chang SH.** Management of ptosis. IV International Ophthalmology Course, Univ of Chile, Santiago, Chile.
- Feb 2, 2008 Prognostic biomarkers in class 2 uveal melanoma: evidence for a cancer stem cell phenotype? Association of University Professors of Ophthalmology annual meeting, Sarasota, FL.