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Date of birth: February 14, 1970

Place of birth: Narberth, PA

Medical licensure: California #A84710 (issued 9/19/2003, expires 2/28/2009)

Education

- 2006-current **Ophthalmic Plastic and Reconstructive Surgery/Neuro-ophthalmology Fellowship** - University of California, San Francisco
Preceptors: William Hoyt, Jonathon Horton, Stuart Seiff, and Timothy McCulley
- 2003-2006 **Ophthalmology Residency** - Stanford University
- 2002-2003 **Medicine Internship** - Kaiser Permanente Santa Clara
- 2000-2002 **Medical School** - Stanford University (MD degree)
- 1994-2000 **Graduate School** - University of California, San Francisco - Program in Biomedical Sciences (Ph.D. degree)
- 1992-1994 **Medical School** - University of Pittsburgh
- 1988-1992 **College** - Harvard University (A.B. in Engineering Sciences cum laude)

Awards

- 2008 "Best Paper by a Fellow." North American Neuro-Ophthalmology Society 39th Annual Frank B. Walsh Session. "My Orbits Are Melting."
- 2008 "The NANOS Award" North American Neuro-Ophthalmology Society 2008. "Reconstitution of light-evoked responses through a mechanism of NMDA receptor mobility across the cell membrane in a tiger salamander model."
- 2007 "Best Paper by a Fellow." North American Neuro-Ophthalmology Society 38th Annual Frank B. Walsh Session. "A Case of Bilateral Optic Nerve Atrophy."
- 2003 Kaiser Medicine Internship Excellence in Medical Student Teaching
- 1988-1992 Harvard Dean's list
- 1988 Presidential Scholar
- 1988 National Merit Scholar

Teaching

- 2007 **Ophthalmology December Course**, University of California San Francisco
- Botox Cosmetic Workshop – Instructor for live demonstration
- 2007 **Resident Lecture Series**, University of California San Francisco
- Giant Cell Arteritis
 - Papilledema
- 2006-07 **Orbit/Eyelid Anatomy Course**, University of California San Francisco
- Lab preceptor
- 2006-08 **Grand Rounds Presentations**, University of California San Francisco
- Linear Scleroderma en coup de saber with ptosis
 - Bilateral Optic Atrophy from Biotinidase Deficiency
 - Orbital Lupus Profundus
 - Primary Orbital Melanoma
 - Bilateral Enophthalmos Associated with Ventriculoperitoneal Shunting
- 2006 **Bay Area Ophthalmology Course**, Stanford University
- Invited speaker for the eyelid and orbit section
 - Orbital anatomy lab preceptor
- 2006 **Medical School Ophthalmology Clerkship**, Stanford University
- Lecturer on general principles of ophthalmology
- 1995 **Medical School Physiology**, University of California San Francisco
- Teaching Fellow for small group discussions and laboratory sessions
- 1989 - 1992 **Calculus**, Harvard University
- Teaching Fellow for One-Dimensional Calculus (1989-1992)
 - Teaching Fellow for Multi-Dimensional Calculus (1992)

Research

- 2006-current Department of Ophthalmology, University of California San Francisco
- Supervisor: Timothy J. McCulley, M.D.
 - Intraorbital shockwave propagation in indirect traumatic optic neuropathy
 - The Epidemiology of Giant Cell Arteritis
 - A Double-layered Closure for Eyelid Crease Manipulation
 - Evisceration: The “Swinging Sclera” Modification
- Department of Ophthalmology, University of California San Francisco
- Supervisor: David R. Copenhagen, Ph.D.
 - The kinetics of glutamatergic synaptic input and N-methyl D-aspartate receptor mobility in the inner retina
- 2004 - 2006 Department of Ophthalmology, Stanford University
- Supervisor: Timothy J. McCulley, M.D.
 - Intraorbital shockwave amplification in indirect traumatic optic neuropathy
- 1994 - 2000 Department of Physiology, University of California San Francisco

- Supervisor: David R. Copenhagen, Ph.D.
- The kinetics and modulation of quantal synaptic transmission in the vertebrate inner retina

1993 summer Department of Biochemistry, University of California San Francisco

- Supervisor: Roger Cooke, Ph.D.
- The conformation of the nucleotide binding site of myosin

1989 summer SmithKline Beecham

- Supervisor: Frank Tobin, Ph.D.
- Mathematical modeling and analysis of ligand-receptor binding kinetics

Professional Associations

2009 Walsh Society Meeting Planning Committee
 2008 North American Neuro-ophthalmology Society
 2006-08 American Academy of Ophthalmology

Consulting appointments

2006 Reviewer for *The Eye Institute-Pfizer Research Prizes*. The Eye Institute, Singapore

Publications

1. Pereira LS, Hwang TN, Kersten RC, Ray K, McCulley TJ. "Levator Superioris Muscle Function in Involutional Belpharoptosis." *Am J Ophthalmol. in press.*
2. Nguyen VT, Hwang TN, Shamie N, Chuck RS, McCulley TJ. "Amyloidosis Associated Neurotrophic Keratopathy Precipitated by Overcorrected Blepharoptosis." *Am J Ophthalmol. submitted.*
3. Trager M, Hwang TN, McCulley TJ. "Delusional parasitosis resulting in left eye preseptal cellulitis and corneal ulcer. *Ophthal Plastic and Recon Surg. in press.*
4. Hwang TN, McCulley TJ. "Blepharoptosis – Diagnosis and Management." *Contemp Ophthalmol. in press.*
5. Day S, Hwang TN, Pletcher SD, Bhatiki A, McCulley TJ. "Interactive Image Guided Endoscopic Dacryocystorhinostomy." *Ophthal Plast Reconstr Surg. in press*
6. Pereria LS, Hwang TN, McCulley TJ. "Marsupialization of Strabismus Surgery Related Orbital Conjunctival Inclusion Cysts. *Journal of Pediatric Ophthalmology and Strabismus. in press.*
7. Pereira LS, Green AJ, Hwang TN, McCulley TJ. "Suprasellar Germinoma and Late Periopic Seeding." *Eur J Ophthalmol in press.*
8. Hwang TN, Moshfeghi DM, Blumenkranz MS. "Posterior Retinal Break as a Cause of Vitreous Hemorrhage in Diabetes." *Retinal Cases & Brief Reports. in press.*

9. Kleiman RJ, Tian N, Krizaj D, Hwang TN, Copenhagen DR, Reichardt LF. "BDNF-Induced potentiation of spontaneous twitching in innervated myocytes requires calcium release from intracellular stores." *J Neurophysiol.* 2000 Jul;84(1):472-83.
10. Hwang TN, Copenhagen DR. "Automatic detection, characterization, and discrimination of kinetically distinct spontaneous synaptic events." *J Neurosci Methods.* 1999 Oct 15;92(1-2):65-73.
11. Tian N, Hwang TN, Copenhagen DR. "Analysis of excitatory and inhibitory spontaneous synaptic activity in mouse retinal ganglion cells." *J Neurophysiol.* 1998 Sep;80(3):1327-40.
12. Franks-Skiba K, Hwang T, Cooke R. "Quenching of fluorescent nucleotides bound to myosin: a probe of the active-site conformation." *Biochemistry.* 1994 Oct 25;33(42):12720-8.

Book chapters

1. Hwang TN, McCulley TJ. "Optic Nerve Sheath Fenestration" in *Surgery of the Eyelid, Orbit, and Lacrimal System Ophthalmology Monographs* edited by William B Stewart. San Francisco: American Academy of Ophthalmology. *in press.*
2. Hwang TN, McCulley TH. "Blepharospasm – Diagnosis and Management" in *Curbside Consultation in Neuro-ophthalmology.* *in press.*
3. Contributor to *Massachusetts Eye and Ear Infirmary Illustrated Manual of Ophthalmology Third Edition.* Philadelphia: Elsevier Science, *in preparation.*
 - "Orbit" - chapter 1
 - "Ocular Motility and Cranial Nerves" - chapter 2
 - "Lids, Lashes, and Lacrimal Glands" – chapter 3
 - "Iris and Pupils" – chapter 7
 - "Optic Nerve and Glaucoma" – chapter 11

Abstracts/Posters

1. Hwang TN, Pereira LS, McCulley TJ. "Evisceration: The "Swinging Sclera" Modification." *The Association of Research in Vision and Ophthalmology 2008. poster.*
2. Phan I, Hwang TN, Pereira LS, McCulley TJ. "A Double Layered Closure for Eyelid Crease Manipulation." *The Association of Research in Vision and Ophthalmology 2008. poster.*
3. Trager MJ, Hwang TN, Pereira LS, Kersten RC, McCulley TJ. "Assessment of Levator Muscle Function in the Fellow Eye of Patients with Asymmetric Involutional Blepharoptosis." *The Association of Research in Vision and Ophthalmology 2008. poster.*

4. Kum C, Hwang TN, Day S, McCulley TJ. "Comparison of Standard Automated Perimetry and Frequency Doubling Technology in Neuro-ophthalmological Disease." The Association of Research in Vision and Ophthalmology 2008. *poster*.
5. Hwang TN, Rofagha S, Hoyt WF, McCulley TJ. "My Orbits Are Melting." North American Neuro-Ophthalmology Society Meeting Frank B. Walsh Session 2008. *platform presentation*.
6. McCulley TJ, Hwang TN. "Orbital Lupus Profundus." North American Neuro-Ophthalmology Society Meeting Frank B. Walsh Session 2008. *platform presentation*.
7. Hwang TN, Copenhagen DR. "Reconstitution of light-evoked responses through a mechanism of NMDA receptor mobility across the cell membrane in a tiger salamander model." North American Neuro-Ophthalmology Society Meeting 2008. *platform presentation*.
8. Hwang TN, Phan I, Pereira LS, McCulley TJ. "A Double Layered Closure for Eyelid Crease Manipulation." American Society of Ophthalmic Plastic and Reconstructive Surgery 2007. *poster*.
9. Hwang TN, Pereira LS, McCulley TJ. "Evisceration: The "Swinging Sclera" Modification." American Society of Ophthalmic Plastic and Reconstructive Surgery 2007. *poster*.
10. Hwang TN, McCulley TJ. "Intraorbital Shockwave Amplification in the Biomechanics of Traumatic Optic Neuropathy." The Association of Research in Vision and Ophthalmology 2007. *poster*.
11. Pereira LS, Hwang TN, Hong J, McCulley TJ, "The Epidemiology of Giant Cell Arteritis." The Association of Research in Vision and Ophthalmology 2007. *poster*.
12. Hwang TN, McCulley TJ. "A Case of Bilateral Optic Atrophy." Presentation, North American Neuro-Ophthalmology Society Meeting Frank B. Walsh Session 2007. *platform presentation*.
13. Hwang TN, Chen K, Kenny TW, McCulley TJ. "The Biomechanics of Traumatic Optic Neuropathy – the Shockwave Propagation Theory." North American Neuro-Ophthalmology Society Meeting 2007. *poster*.
14. Day S, Hwang TN, Hong J, McCulley TJ. "Comparison of Humphrey Perimetry and Second-Generation Humphrey Matrix FDT in the Evaluation of Post-Chiasmal Visual Field Defects" North American Neuro-Ophthalmology Society Meeting 2007. *poster*.
15. Hong J, Liao YJ, Hwang TN, Hoyt WF, McCulley TJ. "Intermittent Monocular Horizontal Acquired pendular nystagmus (APN) in Multiple Sclerosis." North American Neuro-Ophthalmology Society Meeting 2007. *poster*.
16. Hwang TN, Park W, Kenny TW, McCulley TJ. "A Novel Mechanism of Traumatic Optic Neuropathy." American Society of Plastics and Reconstructive Surgery Meeting 2005. *poster*.