

CURRICULUM VITAE

WARREN J. CHANG, M.D.

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EDUCATION

Doctorate of Medicine, Harvard Medical School, (June 1992)

Bachelor of Science with Highest Distinction in Biochemistry, *Phi Beta Kappa*, Indiana University (May 1988)

POST GRADUATE

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| Bascom Palmer Eye Institute, Miami, Florida | (1996-1998) |
| • Fellowship in Ophthalmic Plastic and Reconstructive Surgery | |
| Wills Eye Hospital, Philadelphia, Pennsylvania | (1993-1996) |
| • Ophthalmology Residency | |
| Mount Auburn Hospital, Cambridge, Massachusetts | (1992-1993) |
| • Internship in Medicine | |

CERTIFICATION

American Board of Ophthalmology (1998)

MEDICAL LICENSURE

- | | |
|------------------------------|----------------|
| Indiana Medical License | (2000-present) |
| New Jersey Medical License | (1998-2001) |
| Pennsylvania Medical License | (1995-1999) |

PROFESSIONAL EXPERIENCE

- The Eye Center of Southern Indiana, Bloomington, Indiana** (2000 - Present)
- Practice of General Ophthalmology
- Montana, Weinstock, Ellis, & Chang, Lawrenceville, New Jersey** (1998-2000)
- Practice of General Ophthalmology

PROFESSIONAL MEMBERSHIPS

American Academy of Ophthalmology
American Society of Cataract and Refractive Surgeons
American Society of Ophthalmic Plastic and Reconstructive Surgery

RESEARCH

- 1996-1998 *Conjunctival Changes in Patients Wearing Ocular Prosthesis*, Bascom Palmer Eye Institute, Preceptor: David T. Tse, M.D.
- 1995-1996 *Gore-Tex Orbital Implants and Polytetrafluoroethylene Sheets as a Subperiosteal Implant*, Wills Eye Hospital, Preceptors: Marlon T. Maus, M.D. and Jurij Bilyk, M.D.
- 1994-1995 *Color Doppler Analysis of the Effect of Nifedipine on Orbital Blood Flow*, Wills Eye Hospital, Preceptors: Robert C. Sergoott, M.D. and Richard P. Wilson, M.D.
- 1991-1992 *Indocyanine Green Choroidal Flow Studies*, Massachusetts Eye and Ear Infirmary, Preceptor: Carmen A. Puliafito, M.D.
- 1991 *Optical Coherence Domain Reflectometry of the Retina*, Massachusetts Eye and Ear Infirmary, Preceptors: Carmen A. Puliafito, M.D. and Joel S. Schuman, M.D.
- 1991 *Determinations of the Sites of Resistance to Aqueous Outflow Using the Excimer Laser*, Massachusetts Eye and Ear Infirmary, Preceptor: Joel S. Schuman, M.D.
- 1989 *Post-translational von Willebrand Factor Processing*, Department of Hematology, Brigham and Women's Hospital, Harvard Medical School, Preceptor: Robert I. Handin, M.D.
- 1987-1988 *GABA Uptake and Synaptophysin in Synaptic Vesicles*, Department of Pharmacology, Indiana University, Preceptor: Joseph A. Near, Ph.D.

PUBLICATIONS

Chang, W.J., Tse D.T., Rosa R.H. Huang A., Johnson T.E., and Schiffman J. “Conjunctival Cytology Features of Giant Papillary Conjunctivitis Associated with Ocular Prostheses.” In press *Ophthalmic Plastic and Reconstructive Surgery*. **21**, 39-45 (2005).

Chang, W.J., Tse D.T., Bressler K.L., Casiano R.R., Rosa R.H., and Johnson T.E. “Diagnosis and Management of Allergic Fungal Sinusitis with Orbital Involvement.” *Ophthalmic Plastic and Reconstructive Surgery*. **16**, 72-74 (2000).

Schuman J.S., **Chang W.J.**, Wang N., de Kater A.W., and Allingham R.R. “Excimer Laser Effects of Outflow and Outflow Pathway Morphology.” *Investigative Ophthalmology and Visual Science*, **40**, 1676-1680 (1999).

Alexandrakis G. Tse D.T., and **Chang W.J.** “Spontaneous Globe Luxation Associated with Floppy Eyelid Syndrome and Shallow Orbits.” *Archives of Ophthalmology*. **117**, 57-64 (1999).

Johnson T.E., Casiano R., Kronish J.W., Tse D.T., Meldrum M., and **Chang W.J.** “Sino-orbital Aspergillosis in Acquired Immunodeficiency Syndrome.” *Archives of Ophthalmology*. **117**, 57-64 (1999).

Chang W.J., Tse D.T., Rosa R.H., and Miller D. “Periocular Atypical Mycobacterial Infections.” *Ophthalmology*. **106**, 86-90 (1999).

Dei Cas R., Maus M., Bilyk J. **Chang W.J.**, Eagle R., and Rubin P. “Gore-Tex as an Orbital Implant Material.” *Ophthalmic Plastic and Reconstructive Surgery*. **14**, 425-431 (1998).

Wilson, R.P., **Chang W.J.**, Sergott R.C., Moster M.R., Schmidt C.M., Bond J.B., and Harris A. “A Color Doppler Analysis of Nifedipine-Induced Posterior Ocular Blood Flow Changes in Open-Angle Glaucoma.” *Journal of Glaucoma*. **6**, 231-236 (1997).

Chang W.J., Nowinski T.S., Repke C.S., and Buerger D.G. “Spontaneous Orbital Hemorrhage in Pregnant Patients on Subcutaneous Heparin.” *American Journal of Ophthalmology*. **122**, 907-908 (1996).

Chang W.J., Shields C.L, Shields J.A., Schiffman R., Eagle R.C., Nelson L.B., and DePotter P.V. “Bilateral Orbital Involvement with Massive Allergic Fungal Sinusitis.” *Archives of Ophthalmology*. **114**, 767-768 (1996).

Chang W.J., Goyal A.K., and Flanagan J.C. “Dacryoadenitis Presenting with Eyelid Retraction.” *Ophthalmic Surgery*. **26**, 380-382 (1995).

Chang W.J., Nowinski T.S., and Eagle R.C. “A Large Oncocytoma of the Caruncle.” *Archives of Ophthalmology*. **113**, 382 (1995).

Chang W.J. and Rapuano C.J. "Management of an Anterior Chamber Eyelash." *Ophthalmic Surgery*. **25**, 741-742 (1994).

Guyer D., Puliafito C., Mones J., Friedman E., **Chang W.J.**, and Verdooner S. "Digital Indocyanine-Green Angiography in Chorioretinal Disorders." *Ophthalmology*. **99**, 287-291 (1992).

Huang D., Swanson E., Lin C., Schuman J., Stinson W., **Chang W.J.**, Hee M., Flotte T., Gregory K., Puliafito C., and Fujimoto J. "Optical Coherence Tomography." *Science*. **254**, 1178-1181 (1991).

Meshgin-Azarian S., **Chang W.J.**, Cugier D., Vincent M., and Near J. "Distribution of Dihydropyridine Binding in Bovine Striatal Subsynaptic Fractions: Enrichment of Higher Affinity Binding in a Synaptic Vesicle Fraction." *Journal Neurochemistry*. **50**, 824-830 (1988).

BOOKS

Tse D.T. and **Chang W.J.** Orbital Disease and Neuro-ophthalmology: Part II Surgery of the Orbit and Optic Nerve. In Glaser J.S.: Neuro-ophthalmology, Third Edition, Chapter 14. Philadelphia: Lippincott Williams & Wilkins, 1999.

AMERICAN SOCIETY OF OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY THESES

Chang W.J., Tse D.T., Rosa R.H., Huang A., Johnson T.E., and Schiffman J. "Conjunctival Cytology Features of Giant Papillary Conjunctivitis Associated with Ocular Prostheses." 1998.

Dei Cas R., Maus M., Bilyk J., **Chang W.J.**, Eagle R., and Rubin P. "Fibrovascularization of Gore-Tex Orbital Implants." 1996.

PRESENTATIONS

Rosenthal D.S., **Chang W.J.**, Tse D.T., Johnson T.E., and Miller D. "Clinical Characteristics and Management of Canaliculitis." Presented at The Association for Research in Vision and Ophthalmology 1999

Tse D.T., Alexandrakis G., Rosa R.H., **Chang W.J.**, and Johnson T.E. "Nasolacrimal Duct Obstruction and Orbital Cellulitis Secondary to Chronic Intranasal Cocaine Abuse." Presented at The Association for Research in Vision and Ophthalmology 1999.

Chang W.J., Tse D.T., Rosa R.H., Huang A., Johnson T.E., and Schiffman J. "Conjunctival Cytology Features of Giant Papillary Conjunctivitis Associated with Ocular Prosthesis." Presented at The 29th Annual Scientific Symposium of the American Society of Ophthalmic Plastic and Reconstructive Surgery 1998.

Chang W.J., Rosenthal D.S., Tse D.T., Johnson T.E., and Miller D. “Clinical Characteristics and Management of Canaliculitis.” Presented at The Bascom Palmer Eye Institute 34th Annual Residents’ Days 1998.

Chang W.J., Tse D.T., Rosa R.H., and Miller D. “Mycobacterium Chelonae and Mycobacterium Fortuitum Infections of the Periocular Tissues.” Presented at The American Academy of Ophthalmology Annual Meeting 1997.

Chang W.J., Tse D.T., Bressler K.L., Casiano R.R., Rosa R.H., and Johnson T.E. “Diagnosis and Management of Allergic Fungal Sinusitis.” Presented at The 28th Annual Scientific Symposium of the American Society of Ophthalmic Plastic and Reconstructive Surgery 1997.

Johnson T.E., Casiano R., Kronish J.W., Tse D.T., Meldrum M., and **Chang W.J.** “Sino-orbital Aspergillosis in the Acquired Immune Deficiency Syndrome.” Presented at The 28th Annual Scientific Symposium of the American Society of Ophthalmic Plastic and Reconstructive Surgery 1997.

Chang W.J. and Tse D.T. “Periocular Atypical Mycobacterial Infections.” Presented at The Bascom Palmer Eye Institute 33rd Annual Residents’ Days 1997.

Chang W.J., Tse D.T., Bressler K.L., Casiano R.R., and Johnson T.E. “Diagnosis and Management of Allergic Fungal Sinusitis.” Presented at The Association for Research in Vision and Ophthalmology 1997.

Chang W.J., Maus M.T., Bilyk J.R., and Dei Cas R.E. “Evaluation of Polytetrafluoroethylene for Orbital Reconstruction.” Presented at The Wills Eye Hospital 48th Annual Conference 1996.

Wilson R.P., **Chang W.J.**, Sergott R.C., Moster M.R., Schmidt C.M., Bond J.B., and Harris A. “Nifedipine Produces Variable Changes in Ocular Blood Flow: A Color Doppler Analysis.” Presented at The American Glaucoma Society 1995.

Chang W.J., Nowinski T.S., Repke C.S., and Buerger D.G. “Spontaneous Orbital Hemorrhage in Pregnant Patients on Subcutaneous Heparin.” Presented at The 26th Annual Scientific Symposium of the American Society of Ophthalmic Plastic and Reconstructive Surgery 1995.

Chang W.J., Nowinski T.S., Repke C.S., and Buerger D.G. “Spontaneous Orbital Hemorrhage in Pregnant Patients on Subcutaneous Heparin.” Presented at The Wills Eye Hospital 47th Annual Conference 1995.

Schuman J.S., **Chang W.J.**, Wang N., DeKater A.W., Allingham R.R., and Lin C.P. “Excimer Laser Effects on Outflow Facility and Outflow Pathway Morphology.” Presented at The Association for Research in Vision and Ophthalmology 1992.

HONORS AND ACTIVITIES

- Professional* Oral Examiner, American Board of Ophthalmology 2003
Reviewer, *Ophthalmology* 2002-present
Reviewer, *Archives of Ophthalmology* 2003
- Fellowship* Special Recognition Award for Outstanding Commitment and Support to the Residents, Bascom Palmer Eye Institute
Reviewer, *Ophthalmology*
- Residency* Resident Editor, *Ophthalmology Surgery*
Resident Coordinator, Microsurgery Course for Wills Eye Hospital residents
Volunteer, Annual Vision Screening held in Philadelphia Chinatown
- Medical School*
Brigham and Women's Hospital/Beth Israel Hospital Research Scholarship
Biochemistry Tutor, Harvard Medical School
Peer Discussion Group Leader, English High School, Boston, Massachusetts
Co-Captain, Basketball Team participating in intercollegiate tournaments
Intramural Basketball, Football, Softball
- Undergraduate*
Vice Presidential Scholar Committee (Student Advisory Council to Vice President of Indiana University)
Kappa Kappa Kappa Award (Outstanding Senior in Division of Arts and Sciences)
Outstanding Biochemistry Senior Award
University Honors Division Scholarship
Biomedical Research Program Scholarship
Courson-Greeves Prize
Harry G. Day Research Scholarship
Ira E. Lee Research Scholarship
Counselor and Biochemistry Instructor, Indiana University Summer Institute
Alpha Epsilon Delta
Intramural Basketball, Football, Karate