

Stanford



Sophia Ying Wang, MD

- Clinical Instructor, Ophthalmology
- Masters Student in Biomedical Informatics, admitted Autumn 2019

CLINICAL OFFICES

- **Stanford Byers Eye Institute**

2452 Watson Ct

MC 5353

Palo Alto, CA 94303

Tel (650) 723-6995

Fax (650) 725-6619

Bio

CLINICAL FOCUS

- Ophthalmology
- Glaucoma
- Cataract Extraction

ACADEMIC APPOINTMENTS

- Clinical Instructor, Ophthalmology

PROFESSIONAL EDUCATION

- Residency: University of Michigan Dept of Ophthalmology MI
- Fellowship: Stanford University Glaucoma Fellowship CA
- Internship: Kaiser Permanente Oakland Internal Medicine Residency (2014) CA
- Board Certification: Ophthalmology, American Board of Ophthalmology (2018)
- Medical Education: University of California at San Francisco School of Medicine (2013) CA

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I use and integrate a wide variety of data sources in my research, spanning both structured and unstructured forms, including national survey datasets, health insurance claims data, patient generated online text, surgical video, and electronic health records. I investigate outcomes of treatments for glaucoma and cataract, as well as other areas of ophthalmology. My focus is developing and applying novel methods for automated extraction of ophthalmic data, especially from free text and video.

Publications

PUBLICATIONS

- **Big data requirements for artificial intelligence.** *Current opinion in ophthalmology*

- Wang, S. Y., Pershing, S., Lee, A. Y., AAO Taskforce on AI and AAO Medical Information Technology Committee
2020
- **Intraocular Pressure Changes after Cataract Surgery in Patients with and without Glaucoma: An Informatics-Based Approach.** *Ophthalmology. Glaucoma*
Wang, S. Y., Azad, A. D., Lin, S. C., Hernandez-Boussard, T., Pershing, S.
2020
 - **Management of the glaucoma patient progressing at low normal intraocular pressure.** *Current opinion in ophthalmology*
Wang, S. Y., Singh, K.
2019
 - **Automated extraction of ophthalmic surgery outcomes from the electronic health record.** *International journal of medical informatics*
Wang, S. Y., Pershing, S., Tran, E., Hernandez-Boussard, T.
2019; 133: 104007
 - **Understanding Patient Attitudes Toward Multifocal Intraocular Lenses in Online Medical Forums Through Sentiment Analysis.** *Studies in health technology and informatics*
Wang, S. Y., Hernandez-Boussard, T., Chang, R. T., Pershing, S.
2019; 264: 1378–82
 - **Ocular Antihypertensive Medication Use After iStent Implantation Concurrent With Cataract Surgery vs Cataract Surgery Alone in a Large US Health Care Claims Database.** *JAMA ophthalmology*
Wang, S. Y., Singh, K., Stein, J. D., Chang, R. T.
2018
 - **Reduction of Ocular Antihypertensive Medication Use After iStent Implantation in a Large US Managed Care Network**
Wang, S., Chang, R.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
 - **Utilization of Ophthalmologist Consultation for Emergency Care at a University Hospital** *JAMA OPHTHALMOLOGY*
Wang, S. Y., Hamid, M. S., Musch, D. C., Woodward, M. A.
2018; 136 (4): 428–31
 - **Ophthalmic Screening Patterns Among Youths With Diabetes Enrolled in a Large US Managed Care Network** *JAMA OPHTHALMOLOGY*
Wang, S. Y., Andrews, C. A., Gardner, T. W., Wood, M., Singer, K., Stein, J. D.
2017; 135 (5): 432-438
 - **Patient-centered and visual quality outcomes of premium cataract surgery: a systematic review.** *European journal of ophthalmology*
Wang, S. Y., Stem, M. S., Oren, G., Shtein, R., Lichter, P. R.
2017: 0-?
 - **Incidence and Risk Factors for Developing Diabetic Retinopathy among Youths with Type 1 or Type 2 Diabetes throughout the United States.** *Ophthalmology*
Wang, S. Y., Andrews, C. A., Herman, W. H., Gardner, T. W., Stein, J. D.
2017; 124 (4): 424-430
 - **Patient Attitudes Toward Telemedicine for Diabetic Retinopathy.** *Telemedicine journal and e-health*
Valikodath, N. G., Leveque, T. K., Wang, S. Y., Lee, P. P., Newman-Casey, P. A., Hansen, S. O., Woodward, M. A.
2017; 23 (3): 205-212
 - **The relation between exercise and glaucoma in a South Korean population-based sample** *PLOS ONE*
Lin, S., Wang, S. Y., Pasquale, L. R., Singh, K., Lin, S. C.
2017; 12 (2)
 - **Fungal Endophthalmitis Associated With DSAEK and Thermal Sclerostomy** *OPHTHALMIC SURGERY LASERS & IMAGING RETINA*
Wang, S. Y., Ghodasra, D. H., Amin, S. R., Mian, S. I., Jayasundera, K. T.
2016; 47 (7): 691-693
 - **Oral Contraceptive Use and Prevalence of Self-Reported Glaucoma or Ocular Hypertension in the United States** *OPHTHALMOLOGY*
Wang, Y. E., Kakigi, C., Barbosa, D., Porco, T., Chen, R., Wang, S., Li, Y., Singh, K., Pasquale, L. R., Lin, S. C.
2016; 123 (4): 729-736

- **Hospitalization after Cataract Surgery in a Nationwide Managed-Care Population** *PLOS ONE*
Wang, S. Y., Blachley, T. S., Andrews, C. A., Ayanian, J. Z., Lee, P. P., Stein, J. D.
2016; 11 (2)
- **Oral Contraceptive Use and Prevalence of Self-Reported Glaucoma or Ocular Hypertension in the United States.** *Ophthalmology*
Wang, Y. E., Kakigi, C., Barbosa, D., Porco, T., Chen, R., Wang, S., Li, Y., Singh, K., Pasquale, L. R., Lin, S. C.
2016; 123 (4): 729–36
- **Hypothyroidism and Glaucoma in The United States** *PLOS ONE*
Kakigi, C., Kasuga, T., Wang, S. Y., Singh, K., Hiratsuka, Y., Murakami, A., Lin, S. C.
2015; 10 (7)
- **Self-reported Calcium Supplementation and Age-Related Macular Degeneration** *JAMA OPHTHALMOLOGY*
Kakigi, C. L., Singh, K., Wang, S. Y., Enanoria, W. T., Lin, S. C.
2015; 133 (7): 746-754
- **The Impact of Central Corneal Thickness on the Risk for Glaucoma in a Large Multiethnic Population** *JOURNAL OF GLAUCOMA*
Wang, S. Y., Melles, R., Lin, S. C.
2014; 23 (9): 606-612
- **Association Between Serum Ferritin and Glaucoma in the South Korean Population** *JAMA OPHTHALMOLOGY*
Lin, S., Wang, S. Y., Yoo, C., Singh, K., Lin, S. C.
2014; 132 (12): 1414-1420
- **Racial Disparities in Uncorrected and Undercorrected Refractive Error in the United States** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Qiu, M., Wang, S. Y., Singh, K., Lin, S. C.
2014; 55 (10)
- **Intraocular pressure reduction after cataract extraction in normal eyes: Influence of ethnicity and anterior segment parameters - response** *CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY*
Lee, R. Y., Kasuga, T., Cui, Q. N., Huang, G., Wang, S. Y., Lin, S. C.
2014; 42 (5): 508-508
- **Age-related macular degeneration and protective effect of HMG Co-A reductase inhibitors (statins): results from the National Health and Nutrition Examination Survey 2005-2008** *EYE*
Barbosa, D. T., Mendes, T. S., Cintron-Colon, H. R., Wang, S. Y., Bhisitkul, R. B., Singh, K., Lin, S. C.
2014; 28 (4): 472-480
- **Association between Visual Field Defects and Quality of Life in the United States.** *Ophthalmology*
Qiu, M., Wang, S. Y., Singh, K., Lin, S. C.
2014; 121 (3): 733-740
- **Glaucoma Prevalence and the Intake of Iron and Calcium in a Population-based Study** *CURRENT EYE RESEARCH*
Wang, S. Y., Singh, K., Lin, S. C.
2013; 38 (10): 1049-1056
- **Ethnic differences in intraocular pressure reduction and changes in anterior segment biometric parameters following cataract surgery by phacoemulsification** *CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY*
Lee, R. Y., Kasuga, T., Cui, Q. N., Huang, G., Wang, S. Y., Lin, S. C.
2013; 41 (5): 442-449
- **Glaucoma and vitamins A, C, and E supplement intake and serum levels in a population-based sample of the United States** *EYE*
Wang, S. Y., Singh, K., Lin, S. C.
2013; 27 (4): 487-494
- **Association between Myopia and Glaucoma in the United States Population** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Qiu, M., Wang, S. Y., Singh, K., Lin, S. C.
2013; 54 (1): 830-835
- **Prevalence and Predictors of Depression Among Participants With Glaucoma in a Nationally Representative Population Sample** *AMERICAN JOURNAL OF OPHTHALMOLOGY*

Wang, S. Y., Singh, K., Lin, S. C.
2012; 154 (3): 436-444

- **The Association between Glaucoma Prevalence and Supplementation with the Oxidants Calcium and Iron** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*

Wang, S. Y., Singh, K., Lin, S. C.
2012; 53 (2): 725-731

- **Asian Americans and Obesity in California: A Protective Effect of Biculturalism** *JOURNAL OF IMMIGRANT AND MINORITY HEALTH*

Wang, S., Quan, J., Kanaya, A. M., Fernandez, A.
2011; 13 (2): 276-283

- **Rapid deletional peripheral CD8 T cell tolerance induced by allogeneic bone marrow: Role of donor class II MHC and B cells** *JOURNAL OF IMMUNOLOGY*

Fehr, T., Wang, S., Haspot, F., Kurtz, J., Blaha, P., Hogan, T., Chittenden, M., Wekerle, T., Sykes, M.
2008; 181 (6): 4371-4380

- **Protection against lethal *Aspergillus fumigatus* infection in mice by allogeneic myeloid progenitors is not major histocompatibility complex restricted** *45th Annual Meeting and Exhibition of the American-Society-of-Hematology*

Arber, C., Bitmansour, A., Shashidhar, S., Wang, S., Tseng, B., Brown, J. M.
UNIV CHICAGO PRESS.2005: 1666-71