

Stanford



Charles Q. Yu, MD

Assistant Professor of Ophthalmology at the Stanford University Medical Center

CLINICAL OFFICES

- **Stanford Byers Eye Institute**

2452 Watson Ct

MC 5353

Palo Alto, CA 94303

Tel (650) 723-6995

Fax (650) 565-8297

Bio

BIO

Charles Yu MD is an Assistant Professor of Ophthalmology at the Byers Eye Institute at Stanford. He is from San Francisco and received his undergraduate degree from the University of California Berkeley, his medical degree from University of California Davis, and completed ophthalmology residency at Stanford University. He also completed both a research and a clinical fellowship in the subspecialty of Cornea and Refractive Surgery at Weill Cornell Medical College in New York City. Prior to returning to Stanford, Dr. Yu was an Assistant Professor at the Illinois Eye and Ear Infirmary in Chicago for several years.

Dr. Yu is a board certified ophthalmologist and fellow of the American Academy of Ophthalmology. In addition to treating patients with cataract, cornea and other anterior segment disorders, he teaches residents and leads an active research laboratory focused on developing new treatments for cornea blindness. His research is supported by the National Eye Institute and the U.S. Department of Defense.

CLINICAL FOCUS

- Ophthalmology
- Cornea
- Cataract

ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Ophthalmology

HONORS AND AWARDS

- Vision Research Program, U.S. Department of Defense (2019)
- Dean's Clinical Translational Research Award, University of Illinois Chicago (2018)
- K08 Early Career Award, National Eye Institute (2017)
- Golden Apple Teaching Award, Illinois Eye and Ear Infirmary (2016)
- Eversight Research Award, Eversight (2015)

- K12 Scholar, University of Illinois Chicago (2015)
- Member, Alpha Omega Alpha (2010)
- Regents Scholar, University of California (2009)

PROFESSIONAL EDUCATION

- Medical Education: University of California Davis School of Medicine (2010) CA
- Board Certification: Ophthalmology, American Board of Ophthalmology (2016)
- Fellowship: Weill Cornell Medical College Dept of Ophthalmology (2015) NY
- Residency: Stanford University Ophthalmology Residency (2014) CA
- Internship: Santa Clara Valley Medical Center Dept of Medicine (2011) CA

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Corneal opacity is a leading cause of blindness. Cornea transplantation is at high risk of rejection when there is pre-existing vascularization of the cornea and in pediatric patients. Cornea transplant shortage remains a worldwide problem with millions on waitlists. Our laboratory is developing multiple strategies for treatment of corneal blindness. We are testing advanced materials and designs for keratoprotheses with the goal of reducing complications and easing surgical implantation. We are also developing intraocular electronic display prostheses for bypassing cornea opacity, a novel strategy that could allow for high quality vision without corneal clarity.

Publications

PUBLICATIONS

- **Thermal analysis of intraocular electronic display projector visual prosthesis** *Numerical Heat Transfer, Part A: Applications*
Gongal, D., Thakur, S., Panse, A., Pawar, R., Yu, C. Q., Foster, C. D.
2020; 78 (5)
- **Transgenic models for investigating the nervous system: Currently available neurofluorescent reporters and potential neuronal markers.** *Biochimica et biophysica acta. General subjects*
Yamakawa, M., Santosa, S. M., Chawla, N., Ivakhnitskaia, E., Del Pino, M., Giakas, S., Nadel, A., Bontu, S., Tambe, A., Guo, K., Han, K. Y., Cortina, M. S., Yu, et al
2020: 129595
- **Characterization of an Electronic Corneal Prosthesis System.** *Current eye research*
Shim, S. Y., Gong, S., Fan, V. H., Rosenblatt, M. I., Al-Qahtani, A. F., Sun, M. G., Zhou, Q., Kanu, L., Vieira, I. V., Yu, C. Q.
2019
- **Feasibility of Intraocular Projection for Treatment of Intractable Corneal Opacity** *CORNEA*
Shim, S. Y., Gong, S., Rosenblatt, M. I., Palanker, D., Al-Qahtani, A., Sun, M. G., Zhou, Q., Kanu, L., Chau, F., Yu, C. Q.
2019; 38 (4): 523–27
- **Season and Allergic Conjunctivitis** *Cornea: Fundamentals, Diagnosis and Management*
Yu, C. Q., Ta, C. N.
Elsevier.2019; 4: 526–532
- **Late detachment of Descemet's membrane after penetrating keratoplasty for pellucid marginal degeneration.** *American journal of ophthalmology case reports*
Lin, J., Hassanaly, S., Hyde, R. A., Brown, J., Yoon, D., Yu, C. Q.
2019; 13: 151–53
- **Fluorescent reporter transgenic mice for in vivo live imaging of angiogenesis and lymphangiogenesis.** *Angiogenesis*
Doh, S. J., Yamakawa, M., Santosa, S. M., Montana, M., Guo, K., Sauer, J. R., Curran, N., Han, K. Y., Yu, C., Ema, M., Rosenblatt, M. I., Chang, J. H., Azar, et al
2018

- **3D printing for low cost, rapid prototyping of eyelid crutches.** *Orbit (Amsterdam, Netherlands)*
Sun, M. G., Rojdamrongratana, D., Rosenblatt, M. I., Aakalu, V. K., Yu, C. Q.
2018; 1-5
- **Potential lymphangiogenesis therapies: Learning from current antiangiogenesis therapies-A review.** *Medicinal research reviews*
Yamakawa, M., Doh, S. J., Santosa, S. M., Montana, M., Qin, E. C., Kong, H., Han, K. Y., Yu, C., Rosenblatt, M. I., Kazlauskas, A., Chang, J. H., Azar, D. T.
2018
- **Iris suture fixation: Push-knot needle.** *Journal of cataract and refractive surgery*
Liu, F., Zhou, Q., Yu, C. Q., Guaiquil, V., Geng, Y., Chen, X., Rosenblatt, M. I.
2017; 43 (4): 456-458
- **Subjective Quality of Vision After Myopic LASIK: Prospective 1-Year Comparison of Two Wavefront-Guided Excimer Lasers.** *Journal of refractive surgery*
Yu, C. Q., Manche, E. E.
2016; 32 (4): 224-229
- **Biocompatibility of poly(ethylene glycol) and poly(acrylic acid) interpenetrating network hydrogel by intrastromal implantation in rabbit cornea.** *Journal of biomedical materials research. Part A*
Zheng, L. L., Vanchinathan, V., Dalal, R., Noolandi, J., Waters, D. J., Hartmann, L., Cochran, J. R., Frank, C. W., Yu, C. Q., Ta, C. N.
2015; 103 (10): 3157-3165
- **Comparison of 2 femtosecond lasers for flap creation in myopic laser in situ keratomileusis: One-year results.** *Journal of cataract and refractive surgery*
Yu, C. Q., Manche, E. E.
2015; 41 (4): 740-748
- **Day 1 Wavefront Aberrometry for Prediction of Refractive Outcomes at Year 1 in Myopic LASIK** *JOURNAL OF REFRACTIVE SURGERY*
Yu, C. Q., Manche, E. E.
2015; 31 (3): 170-174
- **Successful DMEK After Intraoperative Graft Inversion** *CORNEA*
Yu, C. Q., Ta, C. N., Terry, M. A., Lin, C. C.
2015; 34 (1): 97-98
- **Mobile Virtual Reality for Ophthalmic Image Display and Diagnosis** *Journal of Mobile Technology in Medicine*
Zheng, L., He, L., Yu, C. Q.
2015; 4 (3): 35-38
- **Subretinal fluid is common in experimental non-arteritic anterior ischemic optic neuropathy** *EYE*
Yu, C., Ho, J. K., Liao, Y. J.
2014; 28 (12): 1494-1501
- **A Comparison of LASIK Flap Thickness and Morphology Between the Intralase 60-and 150-kHz Femtosecond Lasers** *JOURNAL OF REFRACTIVE SURGERY*
Yu, C. Q., Manche, E. E.
2014; 30 (12): 827-830
- **Prevention and treatment of injection-related endophthalmitis** *GRAEFES ARCHIVE FOR CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY*
Yu, C. Q., Ta, C. N.
2014; 252 (7): 1027-1031
- **Comparison of 2 wavefront-guided excimer lasers for myopic laser in situ keratomileusis: One-year results** *JOURNAL OF CATARACT AND REFRACTIVE SURGERY*
Yu, C. Q., Manche, E. E.
2014; 40 (3): 412-422
- **Prevention of postcataract endophthalmitis: evidence-based medicine** *CURRENT OPINION IN OPHTHALMOLOGY*
Yu, C. Q., Ta, C. N.
2012; 23 (1): 19-25

- **Feeding the vertebrate retina from the Cambrian to the Tertiary** *JOURNAL OF ZOOLOGY*
Yu, C. Q., Schwab, I. R., Dubielzig, R. R.
2009; 278 (4): 259–69
- **Vascular endothelial growth factor mediates corneal nerve repair** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Yu, C. Q., Zhang, M., Matis, K. I., Kim, C., Rosenblatt, M. I.
2008; 49 (9): 3870-3878
- **Transgenic corneal neurofluorescence in mice: A new model for in vivo investigation of nerve structure and regeneration** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Yu, C. Q., Rosenblatt, M. I.
2007; 48 (4): 1535-1542