

Kavita K. Rao, M.D., M.S.

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949-923-7261

EDUCATION

- University of Texas Health Science Center at Houston – Houston, TX** **July 2010 – June 2013**
The Ruiz Department of Ophthalmology and Visual Sciences
Residency in Ophthalmology
- Baylor College of Medicine – Houston, TX** **June 2009 – June 2010**
Department of Internal Medicine
Internship in Internal Medicine
- Chicago Medical School – North Chicago, IL** **June 2003 – June 2008**
M.S., Masters of Science in Applied Physiology – 2004
M.D., Doctor of Medicine – 2008
- University of California – Berkeley, CA** **May 1999 – May 2003**
College of Letters and Sciences
Bachelor of Arts - Molecular & Cell Biology - Cell and Developmental Biology
Minor in South Asian Studies

PROFESSIONAL EXPERIENCE

- University of California Irvine - Irvine, CA** **August 2016-Present**
Department of Ophthalmology
Health Sciences Associate Clinical Professor – Comprehensive Ophthalmology
- University of Texas MD Anderson Cancer Center - Houston, TX** **October 2013 – February 2016**
Head and Neck Surgery – Ophthalmology Section
Clinical Specialist – General Ophthalmology
- University of Texas Health Science Center at Houston, Houston - TX** **July 2008 – June 2009**
Department of Ophthalmology
Research fellow

MEDICAL LICENSURE AND BOARD CERTIFICATIONS

- California Medical Board License #A141053 **Issued 3/1/16**
American Board of Ophthalmology **Issued 10/7/18**

RESEARCH

Dept. of Ophthalmology, University of California, Irvine

Nov 2022 – present

- Principal Investigator – Mona Sazgar, M.D.
- Sub-Investigator – Kavita Rao, M.D., M.S.

A Randomized, Double-blind, Placebo-Controlled, Multicenter Phase 3 Study to Evaluate the Safety, Tolerability, and Efficacy of XEN1101 as Adjunctive Therapy in Focal-Onset Seizures Xenon Pharmaceuticals, Inc.

Dept. of Ophthalmology, University of California, Irvine

Sep 2022 – present

- Principal Investigator – Naveen Bhandarkar, M.D.
- Sub-Investigator – Kavita Rao, M.D., M.S.

A Phase III, Randomized, Blinded, Controlled, Parallel-Group Trial to Evaluate the Efficacy and Safety of LYR-210 for the Treatment of Chronic Rhinosinusitis (CRS) in Adults. (PI: Bhandarkar) Lyra Therapeutics, Inc.

Dept. of Ophthalmology, University of California, Irvine

Aug 2021

- Principal Investigator – Olivia Lee, M.D.
- Sub-Investigator – Kavita Rao, M.D., M.S.

The purpose of this research study is to look at the cornea endothelia in glaucomatous eyes with specular microscopy and looking at different factors, which may effect it such as glaucoma surgery, laser, glaucoma eye drops.

Dept. of Ophthalmology, University of California, Irvine

2021

- Principal Investigator – Andrew Browne, M.D., Ph.D.
- Principal Investigator – Lilangi Ediriwickrema, M.D., M.S.
- Sub-Investigator – Kavita Rao, M.D., M.S.

Investigating Ophthalmic Structure and function (OSF) in health and disease using computational methods to integrate data acquired from novel and existing technologies.

Dept. of Ophthalmology, University of California, Irvine

2020

- Principal Investigator – Marjan Farid, M.D.
- Sub-Investigator – Kavita Rao, M.D., M.S.

Risk Factors for Meibomian Gland Dysfunction in the Era of Meibography

The purpose of this research study is to understand the association of various potential risk factors (e.g. contact lens use, makeup, screen time, etc.) with meibomian gland dysfunction and associated changes on minibiography. Meibomian gland dysfunction is a leading cause of dry eyes, which can decrease vision quality as well as quality of life. Meibography is a way to image the glands, often using infrared dynamic surface illumination. We will attempt to correlate changes in meibomian glands (dropout, truncation, etc.) to various risk factors that will be collected by survey or retrospective chart review.

Dept. of Urology, University of California, Irvine

2017

- Principal Investigator – Gamal Ghonim, M.D., FACS
- Sub-Investigator – Kavita Rao, M.D., M.S.

The LEADERSHIP 301 Trial: A 12-Week, Randomized, Multi-Center, Double-Blind, Placebo-Controlled, 3-Arm, Parallel-Group, Phase 3 Trial to Evaluate the Efficacy and Safety of 2 Doses of AQX-1125 Targeting the SHIP1 Pathway in Subjects with Interstitial Cystitis/Bladder Pain Syndrome Followed by 14 or 40-Week Extension Periods.

The purpose of this research study is to compare two dose levels of AQX-1125 (active study drug) to placebo (inactive study drug) in order determine which dose works best, how well the study drug is tolerated and how safe the study drug is in the treatment of Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS). AQX-1125 caused eye toxicity in rat and dog animal studies. In rats, deterioration of the eye lens and cataracts (cloudy lens formation) were observed. Similar findings were seen in dogs at much higher doses. No similar changes have been seen in humans so far but the risk of developing cataracts with long term exposure, even after completing dosing, is currently unknown.

Dept. of Ophthalmology, The University of Texas – Houston, TX **2011 – 2013**

· Principal Investigator – Judianne Kellaway, M.D.

Research on open globe injuries.

Dept. of Ophthalmology, The University of Texas – Houston, TX **2008 – 2009**

· Principal Investigator – Thomas Prager, Ph.D. and Robert Feldman, M.D.

Ultrasound biomicroscopy as a tool in glaucoma evaluation

Dept. of Ophthalmology, Cook County Hospital – Chicago, IL **2006 – 2007**

· Principal Investigator – Richard Ahuja, M.D.

Research related to intravitreal Avastin treatment for diabetic proliferative retinopathy

Dept. of Ophthalmology, University of Illinois at Chicago – Chicago, IL **2006 – 2007**

· Principal Investigator – Lawrence Ulanski, M.D.

Receptor expression in retinal epithelium

CMS Center for Womens Health/RFUMS Clinics – Chicago, IL **2004 – 2007**

· Principal Investigator – Dr. Joanne Kwak-Kim, M.D.

Gene related research on women with recurrent pregnancy losses and multiple implantation failures after *in vitro* fertilization and embryo transfer cycles.

Lawrence Berkeley National Laboratory – Berkeley, CA **2000 – 2003**

· Principal Investigator – Kenneth H. Downing, Ph.D.

Our aim was to develop a rational understanding of the underlying mechanism of microtubule stabilization, eventually allowing development of new, more effective drugs (taxol) targeted to tubulin.

PROFESSIONAL ACTIVITY

Memberships

American Academy of Ophthalmology (AAO) **2017**

Orange County Society of Ophthalmology (OCSO) **2017**

American Association of Physicians of Indian Origin (AAPI) 2016 – Present

Community

Volunteer, Summer Camp at Beyond Blindness. Santa Ana, CA. August 2, 2021.

Volunteer, Orange County Eye Project (OCEP). Lestonnac Free Clinic, Orange, CA. September 23, 2023.

Presentations at Professional Meetings

1. **Kamat, KK**, Bhatta, S, Choi, KY, Ntrivalas, E, Sachs-Gilman, A, Beaman, K, Kwak-Kim, J. Association between cytokine gene polymorphisms and intracellular cytokine expression in CD 4 + T cells of women with reproductive failures. Abstract/Poster presented at the American Society for Reproductive Immunology, Toronto, Canada. May 2007.
2. **Rao, K**, Syed, M.F, Feldman RM, Chuang, AZ. Risk Factors For Progression to End Stage Glaucoma. Presented at the World Glaucoma Congress, Boston, MA. July 2009.
3. **Rao, K**. Red Eye and Other Infectious Eye Conditions Seen in Primary Care. Lecture presented at Pioneer Medical Group, medical group of primary care physicians. August 24, 2017.
4. Carter, S, Mehta, U., Smith, R, Knezevic, A, Vu, P, Marshall, K, **Rao, K**, Farid, M. Screen Time Association with Meibomian Gland Disease Using Meibography. Abstract/Paper presented at the American Society of Cataract and Refractive Surgery, San Francisco, CA. August 2021.
5. Risk Factors for Meibomian Gland Disease Assessed by Meibography. Clin Ophthalmol. 2023; 17:[3331-3339](#). Kim CK, Carter S, Kim C, Shooshani T, Mehta U, Marshall K, Smith RG, Knezevic A, **Rao K**, [Lee OL](#), [Farid M](#). PMID: [37937186](#); PMCID: [PMC10627068](#).
6. Yang, CD., Harekar, AA, Kim, CK, Morcos, DM, Hussey, VM, Chu, MJ, Smith, AK, Rao, K, Mosaed, S, Fox, AR, Lin, KY, Lee, OL. Corneal Endothelial Cell Loss in Glaucomatous Eyes Stratified by Treatment Modality. Abstract at World Cornea Congress, Chicago, IL. September 28-29-2022. (Submitted)

Other Presentations

1. "What to expect from the aging eye: How to keep eye problems at arm's length." Irvine University Park Library, Irvine, CA. Public lecture sponsored by Gavin Herbert Eye Institute. July 13, 2017.
2. "Eye Disorder Prevention and Treatment." UCI Osher Lifelong Learning Center, Irvine, CA. Lecture Sponsored by UCI Osher Lifelong Learning Institute – UCI Extension. September 22, 2017.
3. "Getting the Red Out: Controlling Eye Irritation." Irvine, CA. Lecture. September 17, 2018.
4. Medical Students Evening Tutorial. University of California Irvine, Irvine, CA. September 25, 2019.
5. "Aging Eyes – How your eyes age" UC Irvine Health, Community Lecture Series. Irvine, CA. May 12, 2020.
6. Medical Students Evening Tutorial. University of California Irvine, Irvine, CA. September 23, 2020.
7. Medical Students Evening Tutorial. University of California Irvine, Irvine, CA. September 22, 2021.
8. "Aging Eyes – How your eyes age" UC Irvine Health, Community Lecture Series. Irvine, CA. September 14, 2021.
9. "My Vision is changing with age. What symptoms are important to check?" UC Irvine Health, Community Lecture Series. Irvine, CA. September 12, 2023.
10. Comprehensive Ophthalmology Grand Rounds. University of California Irvine; Irvine, CA. October 11, 2023.

PUBLICATIONS

Journal Articles, Peer Reviewed

1. Tsai PL, **Kamat KK**, Pathak N, Danek K, Ahuja RM Efficacy of Intravitreal Bevacizumab (Avastin) in Patients With Proliferative Diabetic Retinopathy. *Invest. Ophthalmol. Vis Sci.* 49: E2736, 2008.
2. Eide MK, Tsai PL, Pathak NJ, **Kamat KK**, Riaz KM, Ahuja RM. Intravitreal Bevacizumab (Avastin) in Patients with Neovascular Glaucoma. *Invest. Ophthalmol. Vis. Sci.* 49: E5590, 2008.

3. Pathak NJ, Tsai PL, **Kamat KK**, Riaz KM, Gupta AP, Ahuja RM. Effect of Intravitreal Injection of Bevacizumab on Systemic Blood Pressure. *Invest. Ophthalmol. Vis. Sci.* 49: E5589, 2008.
4. Bell NP, Nagi KS, Cumba RJ, Chuang AZ, Lee DA, Prager TC, **Rao K**, Feldman RM. Age and Positional Effect on the Anterior Chamber Angle: Assessment by Ultrasound Biomicroscopy. *ISRN Ophthalmol.* 706201, 2013.
5. **Rao K**, Ahmed I, Blake DA, Ayyala RS. New devices in glaucoma surgery. *Expert Rev. Ophthalmol.* 2009;4(5), 491-504. Published online January 9, 2014