

Paras Vora

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Education

Washington University in St. Louis

BS, Biomedical Engineering and Computer Science

St. Louis, MO

Aug. 2011–May 2015

University of Kentucky College of Medicine

MD

Lexington, KY

Jul. 2015–Exp. May 2020

Honors & Awards

Development and Innovation Award | "Real-Time Stereoscopic Slit Lamp Videography"

University of Kentucky Global Ophthalmology | Dr. Eric Higgins

Lexington, KY

April 2019

Best Poster Award | "Using Artificial Intelligence to Facilitate Eye Disease Detection"

Markey Cancer Center Research Day | Dr. Romulo Albuquerque

Clinical and Translational Science - Graduate Students Section

Lexington, KY

May 2018

Medical Student Travel Scholarship | Society of Interventional Radiology

Annual Scientific Meeting

Washington, DC

Mar. 2017

Research & Intellectual Contributions

Research Projects.....

NIH TL1 Research Trainee

Advisor: Romulo Albuquerque, DDS, MD/PhD, University of Kentucky

Department of Ophthalmology and Visual Sciences

Project: Non-Contrast Retinal Video Processing to Assess Retinal and Choroidal Perfusion

Lexington, KY

Jun. 2017–Jun. 2019

NIH TL1 Research Trainee

Advisor: Romulo Albuquerque, DDS, MD/PhD, University of Kentucky

Department of Ophthalmology and Visual Sciences

Project: Development of Dry Eye Syndrome and Corneal Sensitivity after Vitreoretinal Surgery

Lexington, KY

Aug. 2017–Jun. 2018

Researcher

Advisors: Jennifer Silva, MD and Jonathan Silva, PhD

Washington University School of Medicine, Department of Pediatric Cardiology

Washington University in St. Louis, Department of Biomedical Engineering

Project: Augmented Reality Applications for Cardiac Catheterization Procedures

St. Louis, MO

May 2016–Aug. 2016

Student Researcher, Research in Surgery Elective

Advisor: Romulo Albuquerque, DDS, MD/PhD, University of Kentucky

Department of Ophthalmology and Visual Sciences

Project: Conditional Genetic Knock-out in Trigeminal Ganglia Following Corneal Nerve Injury

Lexington, KY

Jan. 2016–Jun. 2016

Student Researcher

Advisor: Deborah Veis (Novack), MD/PhD, Washington University School of Medicine

Division of Bone and Mineral Diseases

Project: Effect of Low Dose Hydrogen Peroxide on Bone Turnover

St. Louis, MO

August 2013–May 2014

Summer Undergraduate Research Fellow

Advisor: Deborah Veis (Novack), MD/PhD, Washington University School of Medicine
Division of Bone and Mineral Diseases

Project: The Role of TGF-Beta in RANKL-Induced Osteoclastogenesis

St. Louis, MO

May 2013–August 2013

Student Researcher

Advisor: Deborah Veis (Novack), MD/PhD, Washington University School of Medicine
Division of Bone and Mineral Diseases

Project: Effect of IAP Antagonists on Bone Turnover

St. Louis, MO

Aug. 2012–May 2013

Summer Research Fellow

Advisor: Uma Sankar, PhD, University of Louisville

Project: Lentiviral Cloning of GFER in Cancer Cell Lines

Owensboro, KY

May 2012–Aug. 2012

Peer-Reviewed Publications.....

- [1] J. Cho, N. Bell, G. Botzet, **P. Vora**, B. J. Fowler, R. Donahue, H. Bush, B. K. Taylor, and R. J. C. Albuquerque. "Latent Sensitization in a Mouse Model of Ocular Neuropathic PainCho et al." In: *Translational Vision Science & Technology* 8.2 (Mar. 2019), pp. 6–6. ISSN: 2164-2591.
- [2] C. Yang, J. L. Davis, R. Zeng, **P. Vora**, X. Su, L. I. Collins, S. Vangveravong, R. H. Mach, D. Piwnica-Worms, K. N. Weilbaecher, R. Faccio, and D. V. Novack. "Antagonism of Inhibitor of Apoptosis Proteins Increases Bone Metastasis via Unexpected Osteoclast Activation". In: *Cancer Discovery* (2012). ISSN: 2159-8274.

Abstract Presentations.....

- [1] **P. Vora** and R. J. Albuquerque. "Using Artificial Intelligence to Facilitate Eye Disease Detection". In: *Markey Cancer Center Research Day*. Lexington, Kentucky, May 2018.
- [2] **P. Vora**, N. Bell, J. Cho, G. Botzet, and R. Albuquerque. "Visualizing Retinal and Choroidal Blood Flow Noninvasively". In: *Association for Research in Vision and Ophthalmology Annual Meeting*. Honolulu, Hawaii, May 2018.
- [3] R. Albuquerque, J. Cho, N. Bell, G. Botzet, **P. Vora**, and B. Taylor. "Peripheral Latent Sensitization Masks Chronic Ocular Pain". In: *Association for Research in Vision and Ophthalmology Annual Meeting*. Honolulu, Hawaii, May 2018.
- [4] **P. Vora**, N. Bell, J. Cho, G. Botzet, and R. Albuquerque. "Optimizing a technique for visualizing retinal and choroidal blood flow noninvasively". In: *Journal of Clinical and Translational Science* 2.S1 (Apr. 2018), pp. 22–23.
- [5] R. Patel, **P. Vora**, N. Bell, J. Cho, C. Williams, and R. Albuquerque. "Development of Dry Eye Symptoms and Corneal Sensitivity after Ocular Surgeries". In: *13th Annual Center for Clinical and Translational Science Spring Conference*. Lexington, Kentucky, Apr. 2018.
- [6] **P. Vora**, N. Bell, J. Cho, G. Botzet, and R. Albuquerque. "Non-Contrast Retinal Video Processing to Reveal Hidden Changes". In: *AOA Groves Memorial Student Research Symposium*. Lexington, Kentucky, Mar. 2018.
- [7] **P. Vora** and R. Albuquerque. "Eulerian Video Magnification: A Novel Approach to Assess Choroidal Blood Flow". In: *12th Annual Center for Clinical and Translational Science Spring Conference*. Lexington, Kentucky, Mar. 2017.

Oral Presentations.....

- [1] **P. Vora**. "Visualizing Retinal Blood Flow Noninvasively". 13th Annual Center for Clinical and Translational Science Spring Conference. Apr. 2018.

Research Certification.....

University of Kentucky Collaborative Institutional Training Initiative

GCP for Clinical Trials Involving Medical Devices, Biomedical Investigators and Key Personnel Jun. 2017–Present

Funding

NIH TL1 Predoctoral Clinical Research Training Fellowship <i>"Novel Application of Eulerian Video Magnification for Assessment of Choroidal Perfusion"</i>	Jun. 2017–Jun. 2018
UK Center for Clinical and Translational Science Small Grant <i>"Retinal Video Processing for Non-Contrast Assessment of Retinal and Choroidal Perfusion"</i>	Oct. 2017–Oct. 2018
Washington University Summer Undergraduate Research Fellowship Howard Hughes Medical Institute - <i>"Role of TGF-Beta in RANKL-Induced Osteoclastogenesis"</i>	May 2013–Aug. 2013

Patents

Application: "System and Method for Assessment of Retinal and Choroidal Blood Flow Noninvasively Using Color Amplification," Provisional filed November 30, 2017, Non-Provisional filed November 30, 2018

Consulting Activities

Igneous, LLC <i>Co-Founder</i> Providing technical expertise for patent-pending software algorithm to assess tissue perfusion	Lexington, KY Oct 2017–Present
SentiAR, Inc <i>Consultant</i> Developed and tested augmented reality applications for cardiac catheterization procedures at St. Louis Children's Hospital	St. Louis, MO Aug. 2016–Jan. 2017

Professional Activities, Public Service & Professional Development

Memberships.....	
Association for Research in Vision and Ophthalmology: Member	2017–Present
American Medical Association: Member and Delegate	2015–Present
Lexington Medical Society: Member	2015–Present
Leadership & Service.....	
Ophthalmology Interest Group Executive Board <i>Volunteer Coordinator</i> Managed medical student volunteers, attendings, and residents at the Salvation Army Ophthalmology Clinic.	Lexington, KY May 2019– Present
Ophthalmology Interest Group Executive Board <i>President</i> Formed a free student-run ophthalmology clinic at the Lexington Salvation Army. Featured articles: <ul style="list-style-type: none">o UK Healthcare Blog: https://1n.pm/Do7GFo Becker's ASC Review: https://1n.pm/vB5qio UKNow: https://1n.pm/4b21zo New Frontier Chronicle: https://1n.pm/apT5	Lexington, KY May 2017– Jun. 2018
Ophthalmology Interest Group Executive Board <i>Vice President</i> Organized informational career and specialty meetings with various ophthalmologists	Lexington, KY May 2016–May 2017
Cardiology & CT Interest Group Executive Board <i>Secretary</i> Recorded meeting minutes and developed a research project database for medical students	Lexington, KY May 2016–May 2018
Ultrasound Interest Group Executive Board <i>Technology Officer</i> Maintained the website, and assisted in writing the "Case of the Month"	Lexington, KY May 2016–May 2017

Salvation Army Student Run Clinic <i>Volunteer</i> Helping provide free medical care for Lexington's indigent populations	Lexington, KY <i>Jan. 2016–Present</i>
Salvation Army Student Run Clinic <i>Technology Officer</i> Maintained and improved the clinic website, upgraded computers and software to improve patient documentation	Lexington, KY <i>Jun. 2016–Jun. 2017</i>
Castlefest Ultrasound Conference <i>Volunteer, Photographer</i> Photographer for the event. Also served as a live model for attendees to practice ultrasound skills	Lexington, KY <i>Apr. 2017, Apr. 2018</i>
Relay For Life Executive Steering Committee <i>2013-2014: Co-Chair; 2014-2015: Communications Chair</i> Planned and implemented the annual Relay For Life event on Washington University's campus, helping raise over \$600,000 to support cancer research, treatment, and awareness	St. Louis, MO <i>May 2013–May 2015</i>

Teaching Experience

Mentor, Neuroscience Course <i>University of Kentucky College of Medicine</i> Held weekly one-on-one meetings in the Neuroscience course attended by all first year medical students	Lexington, KY <i>Feb. 2017–May 2017</i>
Teaching Assistant, Bioengineering Thermodynamics Course <i>Washington University Department of Biomedical Engineering</i> Facilitated examination review sessions, graded problem sets and exams, and held weekly office hours	St. Louis, MO <i>Aug. 2014–Dec. 2014</i>

Other Creative Activity

Machine Learning Final Project <i>University of Kentucky Department of Computer Science</i> For the Special Topics in Artificial Intelligence course. Implemented an active-learning based software tool in for training a machine learning model to grade diabetic retinopathy from fundus images	<i>2017–2018</i>
Senior Design Project <i>Washington University Department of Biomedical Engineering</i> Developed and presented software to evaluate reading patterns via eye-tracking hardware. View the final report: http://goo.gl/1Ii2Tm	<i>2014–2015</i>
Relay For Life Event Check-In Page <i>Washington University in St. Louis</i> Final creative project for Rapid Prototyping course, using Javascript, jQuery, PHP, MySQL, and Bootstrap o Project page: http://parasvora.com/relay-checkin/ o Currently being used to streamline registration and check-in at multiple large events	<i>2014–2015</i>

Interests

Travel Photography: View my photos at <https://goo.gl/photos/Xfr3W8DyZ1yfCSRSA>

Other Interests: Tennis, coffee, computers/current technology, microelectronics