RESEARCH FELLOW PERSPECTIVES

Two research fellows describe their paths to glaucoma and how their fellowships have shaped their experiences.

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HOANG-VIET TRAN, BS

Why did you choose to pursue a research fellowship?

I realized ophthalmology was the right field for me halfway through my third year of medical school. A research fellowship offered me valuable time to gain more clinical exposure, understand the field more deeply, and contribute to research before applying for residency.

What drew me specifically to glaucoma research was my experience at the free eye clinic at George Washington University. I noticed how patients would reorganize their entire lives around declining vision without fully recognizing their compromises. Seeing how socioeconomic factors shaped their care made me want to address these problems on a larger scale. That's what led me to the Wilmer Eye Institute and Mona Kaleem, MD, and Pradeep Ramulu, MD, PhD, whose work aligned with questions I wanted to explore.

What areas of research interest you?

I am particularly drawn to patient-reported outcome measures in glaucoma. Because glaucoma is currently incurable, I believe we need alternative ways to measure success beyond IOP control and visual field preservation. Understanding how patients experience their disease could transform how we define treatment success.

I am also fascinated by the evolving landscape of MIGS procedures, and I am excited about AI applications in ophthalmology, particularly in surgical training.

How has the experience affected the trajectory of your training?

This fellowship confirmed that academic ophthalmology is the right path for me. After seeing my mentors' work, managing multiple projects, and helping coordinate multicenter trials spanning institutions nationally and internationally, I have a much clearer picture. I've learned the logistics of conducting high-impact research, and I've had the opportunity to work alongside mentors who constantly ask questions and pursue the answers.

RIZUL NAITHANI, DO, MPH

Why did you choose to pursue a research fellowship?

A research fellowship can be an exciting period to explore ophthalmology through the lens of an academician. I chose to pursue a research fellowship after witnessing the profound impact of glaucoma on both patients and those close to me. Coming from a medical school without an ophthalmology research program or home residency program, I sought out opportunities elsewhere. I was fortunate to find a position at Duke University.

What areas of research interest you?

Initially, my research goals focused on gaining experience and contributing to established projects, but over time they evolved into a deeper commitment to developing impactful, patient-centered research. I am now especially interested in innovative approaches to glaucoma treatment, including personalized treatment algorithms, sustained-release drug delivery systems, and minimally invasive surgical strategies that reduce the burden on patients. I am also committed to studying health care disparities in eye care, particularly how socioeconomic barriers and limited access to specialty services affect glaucoma detection and progression.

How has the experience affected the trajectory of your training?

This fellowship immersed me in world-class mentorship and exposed me to innovative research at the intersection of big data, computational analysis, and virtual reality applications in patient care. My first year in the laboratory of Felipe Medeiros, MD, PhD, was transformative. Working directly with large clinical datasets helped me quickly master how to code, analyze, and interpret my own research. I also had the privilege of working with pediatric patients whose diagnostic and management needs differ profoundly from those of adults.

Collectively, these experiences exposed me to the full spectrum of glaucoma care. They underscored the need for innovative tools that bridge gaps in diagnosis and management and helped define the kind of physician-scientist I aspire to become. ■

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