

Personal Statement – Heed Ophthalmic Foundation Residents Retreat
Zachary Richards, University of Iowa

As a developing surgeon-innovator with advanced training in medical device development, I am drawn to unmet needs in ophthalmology and in ophthalmic education. While effective and compassionate clinical practice is my chief goal, I believe that my ability to teach and innovate will come to define my career.

I have had the great pleasure of being a trainee for a long time, in one form or another. Being an ophthalmology resident at an academic institution that passionately values its learners has no doubt been my favorite chapter. There is something deeply transformative about growing in skill and trust with our faculty. Conversely, some of my most rewarding moments of training have been helping a junior resident grasp a diagnosis or refine their skills. Transitioning into chief year and fellowship and beyond, I hope my career keeps me on both sides of mentorship.

Academic ophthalmology creates a real space for innovation in technique, teaching, and technology. I am not a traditional researcher, in the basic or clinical sense, but I have a passion for creating technical solutions to problems that I find. The most recent and most notable of these is a stereo recording module which I have developed for the operating microscope. Stereo surgical videos are incredibly immersive and help build depth cues, yet they are relatively scarce. My department is known for its educational resources, but we lacked the ability to record cases this way. I created a device and method to inexpensively record ophthalmic surgery in stereo to address this content gap. With incredible support from faculty, we built a prototype and have been recording surgeries for a VR cataract surgery curriculum. My institution's support for this work has been pivotal, and I have come to appreciate how an academic innovation ecosystem fosters projects that make an impact without necessarily reaching journals or commercializing.

I look forward to applying for vitreoretinal surgery fellowship this summer, most of all for the privilege of helping patients overcome and live with their retina problems. The surgical, biologic, and cellular technology driving this field continues to blossom. My goals are to become a skillful vitreoretinal surgeon, teach that skill, and make surgery more effective through innovation in instrumentation and fellow education.