

Heed Fellowship Personal Statement – Yujia Zhou

My goal is to complete a neuro-ophthalmology fellowship and practice as an academic ophthalmic hospitalist, with research in trauma and neuroimmunology. I have long admired the experienced hospitalist who has been there forever, always happy to consult when someone has a mystery or needs a second opinion. This requires lifelong learning directly exposed to complex cases in the hospital and clinic, so the patient's problems are better addressed. With this career plan, I hope to serve my community, build the data needed to advance our field, and prepare others to do the same.

While most ophthalmologists practice in the outpatient setting, the inpatient setting is where much medical expertise is built. These cases arrive unannounced from every specialty and setting, requiring flexibility and understanding of the pathology, and I aim to cover this full range. What draws me to this is the interdisciplinary work itself. Managing a patient with infectious uveitis alongside an infectious disease team, or a trauma cases alongside neurosurgery, produces better care than any single-specialty approach. I want to be the person who has experience in the community, works well with the hospital, and understands the problem well enough to cover overnight.

As for the problems we understand poorly, my experience in this setting has shown me that the gaps in our knowledge often stem from inadequate observation, whether due to case rarity or subtlety of findings. For example, kinetic and static perimetry capture overlapping information, but kinetic perimetry metrics are rarely used. I am building open-source tools to bridge that gap so that our large reservoir of kinetic visual field data may be made quantitative. The phenomena hardest to study are those we cannot yet adequately measure. Likewise, ophthalmic trauma relies on the dated ocular trauma score because large multicenter studies run into institutional hurdles for sharing their fragmented data. Nevertheless, this is a challenge well suited for academia, and I hope to involve trainees in this important endeavor just as I was introduced as a medical student.

The most vital requirement for academic medicine is that someone must do it and prepare others to follow. I came into this field because someone invested this interest in me, and thus I seek to do the same for others. To end, I share with you my favorite legend which embodies the spirit of the Heed Fellowship. Sir Humphry Davy, the father of electrochemistry who isolated sodium, potassium, calcium, and chlorine was rumored to have been asked about his greatest contribution to science. Davy supposedly answered with the name of his former lab technician, Michael Faraday.