

Executive Summary

The Iowa Medical Society Foundation (IMSF) has provided 19 scholarships for University of Iowa (11) and Des Moines University (8) medical students for funding of their Global Health Clerkships. This scholarship supports students whose experience relates to health education and promotion, enhances the delivery of quality care, or improves the public's perception of medicine in medically underserved areas, both international and domestic.

Sudeep Gadde, M1 of University of Iowa



Location: India

Date of travel: May 26 - July 1, 2026

Goals of trips:

- Understand how severe ocular chemical injuries from vitriolage intersect with gender inequity delayed access to care and long term disability patient care for non-English speaking patients
- Strengthen ability to recognize and respond to emergent ophthalmic conditions when patients present late
- Build on long standing commitment to global health in medicine



The first three weeks were spent at Aravind Eye Hospital in Pondicherry, an institution unlike any hospital he had ever experienced. Before arriving, he had heard it described as one of the world's largest eye hospitals. After spending time there, he realized that what makes Aravind remarkable

is not simply its size, but the philosophy behind it. During one conversation, Dr. R. Venkatesh, the Chief Medical Officer and one of India's leading glaucoma surgeons, explained the model in a way that immediately clicked. He smiled and said, "We're the McDonald's of eye care." At first the comparison caught him off guard, but as he followed him through the hospital over the next several weeks, it was understood exactly what he meant. Every process had been carefully designed so that surgeons spent their time operating while highly trained teams prepared patients, sterilized instruments, completed documentation, and moved patients efficiently through each stage of care. It was not about rushing surgery. It was about eliminating every unnecessary step surrounding it so that more patients could receive the same high-quality care.

The scale was staggering. Across the Aravind Eye Care System, millions of patients are seen every year, with hundreds of thousands of surgeries, lasers, and injections performed annually. Nearly half of patients receive care free of charge or at heavily subsidized rates, yet the system remains financially self-sustaining through efficiency and high patient volume. Outreach is central to the model. Every year, Aravind conducts thousands of rural eye camps that identify patients with treatable blindness, arrange transportation to the hospital, and ensure that financial barriers never prevent someone from receiving surgery.

One weekend Sudeep joined one of these rural camps. Long before sunrise, families were already waiting outside the school that had been converted into a temporary eye clinic. He met an elderly farmer who quietly explained through a translator that he had gradually stopped working because he could no longer recognize people across his fields. He assumed blindness was simply part of aging. After a brief examination, the team diagnosed dense cataracts, scheduled surgery for the following week, and arranged transportation to Pondicherry. As his daughter translated the plan, his expression changed from resignation to relief. It struck him that restoring vision was only part of what Aravind was doing. They were restoring livelihoods, independence, and hope.

Most of Sudeep's days were spent rotating through cornea, glaucoma, retina, pediatric ophthalmology, and oculoplastics clinics, observing surgeries, and participating in resident teaching sessions. He followed patients from their clinic evaluations into the operating room and back to their postoperative visits, watched retinopathy of prematurity screenings in the neonatal intensive care unit, and spent countless hours discussing cases with residents and faculty. What surprised him most was how willing everyone was to teach. Rather than simply observing, he found himself being asked what he thought. Faculty regularly asked how medical education differed in the United States and whether aspects of their resident curriculum or simulation training could be improved. Several conversations were had with Dr. Venkatesh and his team about potential collaborative research projects, including evaluating outcomes of their GOLY virtual surgical mentoring system. It never felt like he was simply visiting another hospital. Instead, it felt like he had become part of a shared effort to improve eye care and surgical education across institutions.



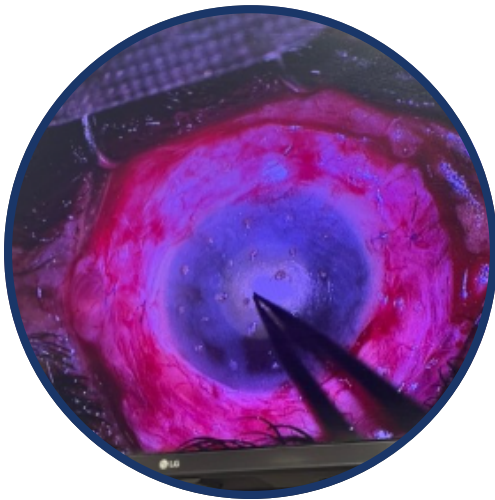
Assisting with intraocular pressure (IOP) screening at a rural outreach eye camp organized by Aravind Eye Hospital, providing glaucoma screening services to underserved communities.

That openness of collaboration made the experience feel like true global health, not one group teaching another, but two groups learning from each other.

One of the innovations Sudeep found most fascinating was the GOLY virtual surgical mentoring system. Residents performed cataract surgery while wearing a head-mounted camera that streamed the procedure live to an experienced surgeon elsewhere in the hospital. Rather than standing shoulder to shoulder, the mentor could watch every movement, provide immediate guidance, and intervene if necessary. During his time there, he also contributed to a research project evaluating this training model while helping collect data for another project examining ocular injuries following intentional chemical assaults (vitriolage). Seeing patient care, education, and research seamlessly integrated reinforced why Aravind has become a model studied by hospitals around the world.

The hospital's commitment to sustainability was equally impressive. Dr. Venkatesh showed him how Aravind applies the principles of reduce, reuse, and recycle throughout the operating room. While a typical cataract surgery in the United States can generate nearly four to five kilograms of waste, Aravind has reduced that amount to roughly 200 grams per surgery without compromising patient safety. Walking through the operating rooms, he began noticing how every instrument, every package, and every movement had been intentionally designed to minimize waste while maximizing efficiency. It was another reminder that delivering affordable eye care often depends as much on thoughtful systems engineering as on surgical skill.

The final two weeks in India provided a striking contrast at CODE Eye Care in Chennai. Instead of a high-volume tertiary system like Aravind, Sudeep entered a highly specialized ocular surface practice under Dr. Geeta Iyer, where patients from across India and around the world came seeking care for diseases that many physicians encounter only rarely. The pace slowed considerably, allowing every patient encounter to become a detailed conversation rather than a rapid clinic visit.



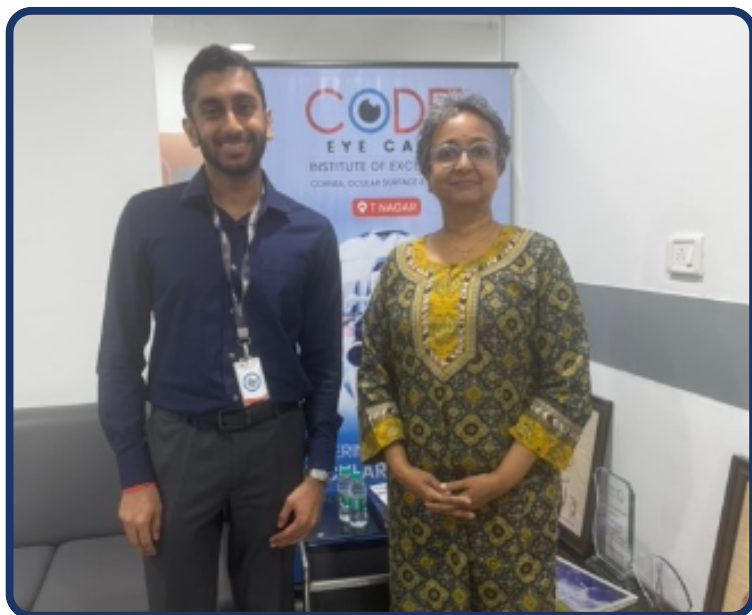
One patient he will never forget was a school teacher who had survived an intentional chemical assault. Before discussing his examination, he spoke about what he missed most: returning to his classroom, recognizing his students from across the room, and reading without constant discomfort. His chart documented multiple reconstructive procedures, but hearing his story transformed those operative notes into something deeply personal. Later that week, he stood in the operating room as Dr. Iyer performed a complex ocular surface reconstruction. Watching the meticulous precision required to rebuild an eye that had been devastated by chemical injury gave new meaning to the vitriolage research he had been working on. The project was no longer just a collection of charts and outcomes, it now had a face and a reminder of why this work matters.

Allogeneic Simple Limbal Epithelial Transplantation (AlloSLET) performed by Dr. Geeta Iyer at CODE Eye Care. This ocular surface reconstruction procedure uses donor limbal tissue to restore the corneal surface in patients with severe limbal stem cell deficiency. I was given permission to take this image.

Working with Dr. Iyer also taught him that some of the most important moments in medicine occur before the examination begins. She spent as much time understanding how vision loss had affected a patient's daily life as she did evaluating the ocular surface itself. Patients arrived carrying years of medical records, hoping someone would finally offer an answer, and she approached each encounter with remarkable patience and empathy. Observing those conversations reinforced that restoring vision is not simply about improving visual acuity; it is about helping patients reclaim the parts of their lives that vision loss has quietly taken away.

Looking back, the goals he set for this clerkship were not only met but expanded in ways he had not anticipated. He wanted to understand how high-quality ophthalmic care could be delivered efficiently and sustainably in resource-limited settings. At Aravind, Sudeep learned that efficiency is not about working faster, it is about designing better systems. Every workflow, from patient intake to the operating room, was constantly evaluated and refined. Much like Dr. Venkatesh's comparison to McDonald's, the goal was to standardize processes so consistently that excellent outcomes became reproducible at an extraordinary scale. He saw the same mindset applied beyond patient flow through initiatives like reducing surgical waste from several kilograms per case to only a few hundred grams without compromising safety. It challenged him to think about healthcare not only as clinical medicine but also as systems engineering, where innovation often comes from improving small processes that, together, transform care for millions of patients.

Just as importantly, this experience showed what a meaningful global health collaboration looks like. Rather than simply observing, he was invited to contribute ideas, discuss resident education, and help develop future research questions surrounding innovations like the GOLY virtual surgical mentoring system. Those conversations evolved into professional relationships that have continued well beyond my time in India. He remains in contact with several faculty members, including Dr. Venkatesh and Dr. Geeta Iyer, discussing collaborative research projects and sharing ideas, and he looks forward to reconnecting with many of them at future ophthalmology conferences. The greatest outcome of this clerkship was not only what he learned, but the international community of mentors and collaborators he became part of.



With Dr. Meenakshi, a pediatric ophthalmologist at CODE Eye Care in Chennai and former pediatric ophthalmology fellow at the University of Iowa. Reconnecting through the shared Iowa connection. GO HAWKS!