

# PEDIATRIC RETINA FELLOWSHIP: A FIRST OF ITS KIND



At Harvard's Department of Ophthalmology, fellows gain hands-on experience to help care for this unique patient population.

**BY NIMESH A. PATEL, MD; EFREN GONZALEZ, MD; AND BAH A EL KHATIB, MD**

**P**ediatric retina is a growing subspecialty within ophthalmology. Advancements in surgical techniques and instrumentation have led to enhanced diagnostic testing and treatment outcomes for these challenging cases. To provide highly specialized care to this unique population, there is a need to increase the number of focused clinicians globally. Very few of the current 2-year fellowships offer enough exposure to pediatrics to allow for competency upon graduation.

To transfer knowledge and experience to retina surgeons who want to care for this vulnerable group and address the unique anatomic and psychosocial challenges, we created the first (to our knowledge) clinical pediatric retina fellowship.

## THE INS AND OUTS OF THE PROGRAM

Our first pediatric vitreoretinal surgery and ocular oncology fellow, Baha El Khatib, MD, was a graduate of the Ohio State University Eye & Ear Institute's Vitreoretinal

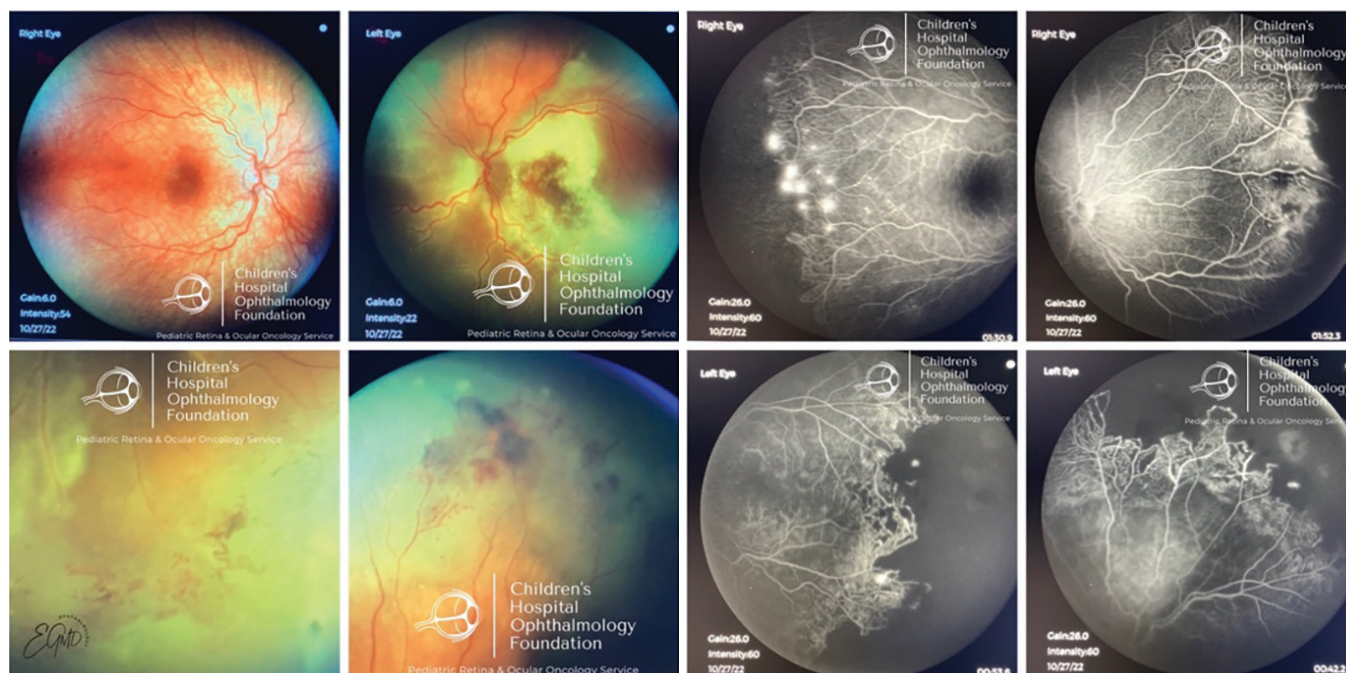


Figure 1. Dyskeratosis congenita with bilateral retinal exudates and angiographic leakage.

# THE ESTABLISHMENT OF A PEDIATRIC VITREORETINAL SURGERY AND OCULAR ONCOLOGY FELLOWSHIP REPRESENTS OUR COMMITMENT TO ADVANCING A FIELD THAT WE ARE PASSIONATE ABOUT.

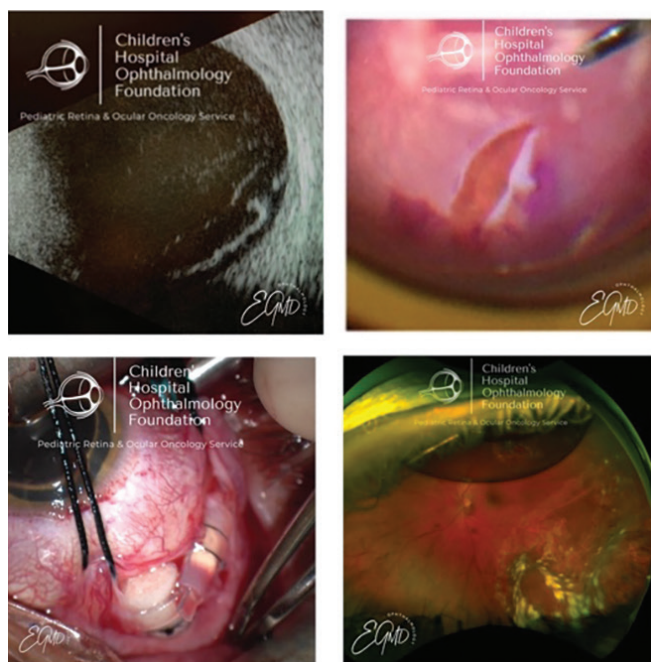


Figure 2. A pediatric patient developed a retinal detachment due to self-injurious behavior.

Surgery Fellowship Program. Although he received some pediatric retina experience during his fellowship, he wanted to pursue additional training to expand his armamentarium. He reached out to us to obtain hands-on experience—more than what could be achieved by shadowing.

At Boston Children's Hospital, we see considerable medical and surgical volume consisting of a variety of ocular conditions, including retinopathy of prematurity, familial exudative vitreoretinopathy, pediatric retinal detachment, persistent fetal vasculature, dyskeratosis congenita, incontinentia pigmenti, Coats disease, and proliferative sickle cell retinopathy (Figures 1-3).

The Department of Ophthalmology and the Ocular Oncology Center of Excellence is also a hub for the management of retinoblastoma and other eye tumors (Figure 4). We are a treatment site for voretigene neparvovec-rzyl (Luxturna, Spark Therapeutics) gene therapy, and we participate in a growing number of clinical trials requiring subretinal surgery for conditions such as X-linked retinitis

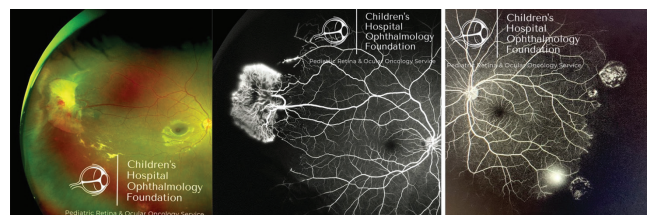


Figure 3. Proliferative sickle cell retinopathy with sea fan neovascularization.

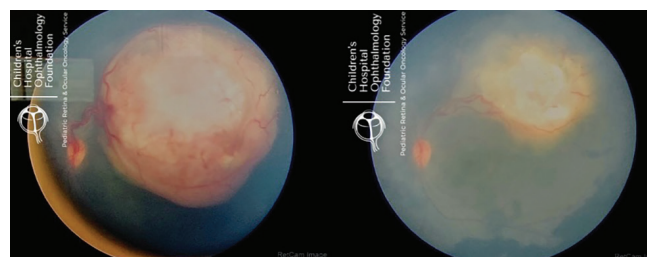


Figure 4. Retinoblastoma treated with intraarterial chemotherapy.

pigmentosa, achromatopsia, and choroideremia. As part of a children's hospital, we work in tandem with pediatric ophthalmologists, optometrists, geneticists, electrophysiologists, and other medical subspecialists. It's an excellent place to gain experience in pediatric retina.

After discussing Dr. El Khatib's request with our department leadership, it became apparent that, to ensure our standards for patient care were met, we needed to create an official position with approved prerequisites. This kickstarted the process to gain endorsement for an innovative program that uses the latest advances and resources in pediatric retinal care. We presented a detailed proposal to the Harvard Ophthalmology education group that outlined the program's objectives and anticipated effect; it is now an official program offered annually through San Francisco Match.

This comprehensive training program provides fellows with technical expertise and fosters a commitment to compassionate, patient-centered care. An additional aim of the fellowship is to provide the tools for graduates to be future leaders in research. There are dedicated personnel who assist fellows in the institutional review board process, data collection, statistical analysis, and medical writing that

can be presented at national conferences and published in medical journals.

Applicants need to have passed the USMLE board examinations and be eligible for a medical license in Massachusetts. Due to the complexity of pediatric retinal pathology, it is an absolute necessity that applicants complete a surgical retina fellowship before they start the pediatric retinal surgery program. International candidates are welcome to apply if they meet the requirements. Boston Children's Hospital has the capability to sponsor visas as needed.

### PAVING THE WAY FORWARD

The establishment of a pediatric vitreoretinal surgery and ocular oncology fellowship represents our commitment to advancing a field that we are passionate about. We expect that this collaborative effort will offer a model for the education and inspiration of the next generation of pediatric retina specialists. ■

---

#### EFREN GONZALEZ, MD

- Director of the Pediatric Retina Program and Director of the Ocular Oncology Center, Boston Children's Hospital; Faculty Ophthalmologist, Beth Israel Lahey Medical Center; Instructor in Ophthalmology and Harvard Pediatric Vitreoretinal and Ocular Oncology Fellowship Codirector, Harvard Medical School, Boston
- [efren.gonzalez@childrens.harvard.edu](mailto:efren.gonzalez@childrens.harvard.edu)
- Financial disclosure: None

#### BAHA EL KHATIB, MD

- Adult and Pediatric Vitreoretinal Surgeon and Ocular Oncology Specialist, Vitreoretinal Consultants, Cleveland
- Harvard Pediatric Vitreoretinal Surgery and Ocular Oncology Fellowship Graduate, Harvard Medical School, Boston
- [belkhatib@vitreo-retinal.com](mailto:belkhatib@vitreo-retinal.com)
- Financial disclosure: None

#### NIMESH A. PATEL, MD

- Director of Pediatric Retinal Surgery, Boston Children's Hospital; Director of Pediatric Retina, Massachusetts Eye and Ear and Massachusetts General Hospital; Assistant Professor of Ophthalmology and Harvard Pediatric Vitreoretinal and Ocular Oncology Fellowship Codirector, Harvard Medical School, Boston
- [nimesh.patel@childrens.harvard.edu](mailto:nimesh.patel@childrens.harvard.edu)
- Financial disclosure: None

For more information about the Pediatric Vitreoretinal Surgery and Ocular Oncology Fellowship Program, please contact Mary Katherine Hart, fellowship program coordinator, at **617-355-5685** or [marykatherine.hart@childrens.harvard.edu](mailto:marykatherine.hart@childrens.harvard.edu).