Mass General Brigham
Mass Eye and Ear

HARVARD MEDICAL SCHOOL | DEPARTMENT OF Ophthalmology

INNOVATION and INTERACTION

Innovation and Interaction is an educational initiative that brings all residents together for a three-hour session on one Friday every month. These interactive workshops, coordinated by the chief resident and run by the subspecialty departments, allow residents to participate in hands-on learning in the state-of-the-art Altschuler Ophthalmology Surgical Training Laboratory under the direction of a wide variety of faculty members.

The Altschuler Ophthalmology Surgical Training Laboratory is equipped with nine workstations, including a proctor station with advanced audio-visual controls, a surgical simulator, training machines for vitrectomy and cataract surgeries, and all necessary surgical instruments. It is maintained by a dedicated wet lab technician and open to residents 24/7 for self-, peer- or faculty-directed surgical practice.

Please note, photos included here include from wet labs pre- and post-COVID.

The junior residents participated in a Refraction Bootcamp with Dr. David Hunter, Chief of Pediatric Ophthalmology at Boston Children's Hospital, and the optometry faculty, learning retinoscopy and refraction. The intermediate and senior residents participated in a MIGS workshop, learning a wide variety of MIGS procedures with glaucoma specialist Dr. David Solá-Del Valle. Having completed this training, senior residents participate in MIGS procedures as primary surgeon on their glaucoma rotation.

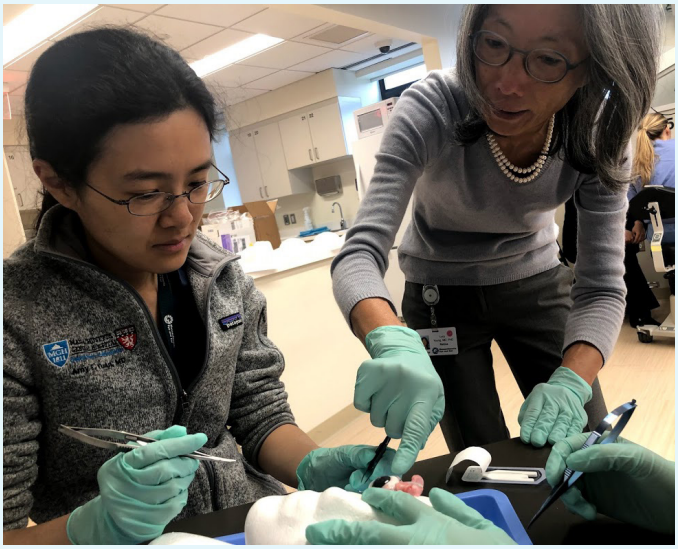
Junior residents learned BScan and AScan ultrasonography techniques and optical coherence tomography from MEE imaging experts. Intermediate and senior residents participated in an intraocular iris suturing workshop with cornea specialists Drs. Emma Davies and Christian Song.

Dr. Roberto Pineda, a cornea specialist, and Dr. Sherleen Chen, the director of the Comprehensive Ophthalmology Service, led anterior vitrectomy, surgical peripheral iridotomy and ACIOL placement training for all resident classes. Dr. Suzanne Freitag, the director of the Oculoplastics Service, and oculoplastics fellow Dr. Natalie Wolkow then provided hands-on instruction in orbital surgery, including canthotomy/ cantholysis, retrobulbar injections, marginal and canalicular lid lacerations, on human cadaver heads.

Drs. Teresa Chen, and Milicia Margeta, glaucoma specialists, gave didactic and hands-on instruction in tubes, trabs, gonioscopy, and glaucoma testing. The juniors Dr. Margeta to the 1st floor, where they learned how to both operate and undergo visual field testing. Meanwhile, the intermediates and seniors practiced trabs and tube insertion. Dr. David Solá-Del Valle, a glaucoma specialist, gave hands-on training in the laser center reviewing glaucoma laser procedures.

Each resident class had the opportunity to practice corneal suturing and do a full penetrating keratoplasty on a pig eye, including graft harvesting and graft suturing, with the direction of Drs. Emma Davies and Jia Yin, cornea specialists. In addition, the junior residents built model eyes with Dr. Jan Kylstra, a retina specialist who has since retired, that they can use to practice indirect ophthalmoscopy and indirect laser.

Dr. Silas Wang, a cataract specialist, led the residents in a lab dedicated to skill-building in cataract surgery. The seniors practiced precepting the juniors who were learning the steps of cataract surgery. The intermediates practiced anterior vitrectomy. All resident classes learned how to set up and troubleshoot both the Infinity and Centurion phacoemulsification machines and learn lens loading. In addition, Dr. Karl Laskowski, the Associate Medical Director of the Brigham and Women's Physicians Organization (BWPO) gave a workshop about Quality Improvement.



Drs. Jan Kylstra, Miin Roh and Mary Beth Aronow, retina specialists, ran a laser wetlab on the 12th floor, complete with model eyes and simulation of the Pascal and indirect lasers. Drs. John Miller and Lucy Young, also retina specialists, ran a scleral buckle lab with pig eyes, allowing each resident to practice their scleral passes and buckle technique. Residents also worked on placing anterior chamber intraocular lenses and EyeSi vitreoretinal simulation. Finally, Drs. John Miller and Jan Kylstra guided the residents through port placement, vitrectomy, lensectomy, and even retinectomy, using the Constellation vitrectomy machine.