

The Cole Eye Institute At Cleveland Clinic Is Pleased To Offer A One-Year Fellowship In Ophthalmic Genetics Starting In July 2023.

This one-time fellowship is open to senior residents who are finishing their training in June 2023 and available to start the fellowship in July/August 2023, and to other ophthalmologists who are completing fellowships in any ophthalmology subspecialty such as pediatric ophthalmology, medical and/or surgical retina, glaucoma, or neuro-ophthalmology. Ophthalmologists who are already in clinical practice are also eligible. The fellowship is supported by a grant from the **American College of Medical Genetics** and the recipient will receive a salary at the PGY5 level of training as well as other benefits identical to those of all other fellows at the Cleveland Clinic. The fellow must be eligible for a full Ohio license to practice medicine. Please contact Dr. Traboulsi directly for additional information at traboue@ccf.org. This unique fellowship experience has been planned to provide the candidate with an immersive, competency-directed curriculum and clinical experience so she/he is ready to take care of patients with genetically determined eye diseases and integrate this practice in academic institutions.

Program Description

Ophthalmologists specializing in ophthalmic genetics must be competent in basic genetics principles, the work-up of patients with known or suspected genetic eye diseases with or without systemic manifestations, as well as the utilization of genetic tests and their interpretation so they can provide appropriate counseling and management to their patients.

The curriculum combines clinical training in the diagnosis and management of genetic diseases of the eye, inherited retinal disorders, and systemic diseases with ocular manifestations. The fellow will participate/be responsible for a weekly retinal dystrophy clinic overseen by Dr. Elias Traboulsi, fellowship director and Ms. Meghan DeBenedictis, genetic counselor, and for another weekly busy ophthalmic genetics clinic also under the supervision of Dr. Traboulsi. There will be training in electrophysiology testing with Dr. Rebecca Schurr, as well as rotations and conference attendance at the Genomics Institute at Cleveland Clinic. Cole Eye retina specialists participate in several gene therapy studies and the fellow will work alongside principal investigators for those studies.

The clinical rotations will provide high volume as well as in-depth clinical exposure to patients with inherited retinal disorders, ocular malformations (isolated and in the setting of syndromes), retinoblastoma, neuro-ophthalmic disorders, mitochondrial diseases, and systemic diseases with major ocular involvement, especially connective tissue diseases such as Marfan syndrome and Stickler syndrome. Supervision will be provided by the program director, as well as other faculty whose clinical practice is enriched in some of the

disorders that need to be studied. The primary supervisor/director of fellowship will be Dr. Elias Traboulsi (Pediatric Ophthalmologist and Board-Certified Clinical Geneticist). Ms. Meghan DeBenedictis (Licensed, Certified Genetic Counselor; Ophthalmology & Center for Personalized Genetic Healthcare) will oversee the genetic counseling sessions. Other clinical supervisors will include Dr. Arun Singh (Retinoblastoma), Dr. Lisa Lystad (Neuro-ophthalmology), Dr. Aleksandra Rachitskaya (surgical retina/gene therapy specialist), Dr. Alex Yuan (surgical retina/electroretinography/gene therapy specialist), Dr. Sumit Parikh (Neurologist and mitochondrial disease specialist). All faculty have agreed to participate in the training of the fellow.

Formative and summative feedback with supervisor evaluation upon completion of seeing patients in the different clinics. Fellows will also be assessed in the 6 clinical competencies as defined by the ACGME: Patient Care, Medical Knowledge, Practice-based Learning and improvement, Interpersonal skills and communication, Professionalism and Systems-based Practice. Specific goals and objectives for the different rotations, how the skills will be imparted, resources provided, and competencies assessed will be written and communicated to the trainee.

When working with the genetic counselors, the fellow will be expected to interpret pedigrees, determine appropriate genetic test and laboratory selection, and discuss/accurately interpret genetic test results.

Further, the fellow will consider psychosocial implications when working with patients and family members with this group of genetic diseases, including but not limited to predictive genetic testing, genetic information non-discrimination act, consenting, research vs clinical testing, unanticipated results, and delivering bad news.

The fellow will also complete all required IRB training and will be assigned one or more research projects depending on availability and interest. The fellow will work closely with the research administration team and the research nurses to understand the planning, functioning and execution of studies that involve inherited eye diseases and those for gene therapy. Several such studies are currently underway at the Cole Eye Institute.

Specific departmental conferences that the fellow will attend include monthly Center for Personalized Genetic Healthcare case conference and journal clubs, weekly Cole Eye Institute Grand Rounds, and monthly retinal dystrophy conference. Additional Journal clubs are designed by faculty and the fellow. The fellow is expected to present at and attend the meeting of the Ophthalmic Genetics Study Club at the American Academy of Ophthalmology and present and attend the meeting of the International Society for Genetic Eye Diseases and Retinoblastoma (ISGEDR) as well as the meeting of the Association for Research in Vision and Ophthalmology (ARVO).

Educational Resources provided include textbooks on genetic eye diseases and access to online journals and textbooks at the Cleveland Clinic. The fellow will also be provided with a packet of critical review

articles to read during the first weeks of the fellowship.

Program Faculty:

Dr. Elias Traboulsi is an expert in genetic eye diseases. He also has a Master's in Health Professions Education. He has served as residency program director at Cole Eye Institute for 15 years and as Pediatric Ophthalmology fellowship director for 25 years. He has published extensively in the field of ophthalmic genetics and has edited the major textbook in the field. His clinical practice is now restricted to genetic diseases that affect the eye and to the diagnosis and management of inherited retinal dystrophies.

Ms. Meghan DeBenedictis is a licensed, certified genetic counselor with almost 12 years' experience in ophthalmic genetics. She also has a Master's in Health Professions Education. She is a Clinical Professor of Ophthalmology and the Director of Genetic Business Development for the Cleveland Clinic's Center for Personalized Genetic Healthcare. Ms. DeBenedictis is the first genetic counselor to be nominated and elected to serve on the Executive Board of the International Society of Genetic Eye Diseases & Retinoblastoma. She is an editorial board member of the journal Ophthalmic Genetics and has published over 50 manuscripts and book chapters. She is a member and curator for ClinGen's Retina Gene Curation Expert Panel and serves on the Scientific Advisory Board of the Curing Retina Blindness Foundation. Ms. DeBenedictis is the current President for the Ohio Association of Genetic Counselors and Education Chair for the Ophthalmology and Hearing Loss Special Interest Group of the National Society of Genetic Counselors. Ms. DeBenedictis sees all patients referred for genetic testing for known or suspected hereditary eye conditions. She provides both in-person and telemedicine genetic counseling sessions and facilitates ordering and result interpretation/disclosure of genetic testing for all patients. She and Dr. Traboulsi conduct a weekly inherited retinal dystrophy clinic. This multidisciplinary clinic is designed to allow for clinical examination, comprehensive ophthalmic imaging, and genetic counseling and testing for patients. Ms. DeBenedictis is the Ophthalmic Genetics Clinical Rotation Supervisor for the Case Western Reserve Genetic Counseling Program where she developed an ophthalmic genetics curriculum and oversees genetic counselor trainees. All other faculty who will participate in the training of the fellow are experts in their fields and have been involved in clinical training of medical students, residents, fellows, and colleagues for long periods of time.