

Postdoctoral Fellowship: Ocular Genetics, Genomics, & Therapeutics

Research Areas: Ocular Genetics, Genomics, Molecular Biology, Oligonucleotide Therapeutics

A postdoctoral training opportunity in ocular genetics and genomics is now available in the laboratory of [V. Vinod Mootha, M.D.](#) in the Department of Ophthalmology and the McDermott Center for Human Growth and Development at UT Southwestern Medical Center:

[The Mootha Lab](#) studies the molecular genetic basis of a common age-related eye disease called Fuchs' endothelial corneal dystrophy. Fuchs' dystrophy is the most common DNA trinucleotide repeat expansion disorder in humans and the leading indication for corneal transplantation in the United States. Dr. Mootha has elucidated that CUG repeat RNA is the "root cause" of Fuchs' Dystrophy in a majority of cases. He has collaborated with David Corey, Ph.D. in the Departments of Pharmacology and Biochemistry at UT Southwestern Medical Center to pioneer the development of antisense oligonucleotide and duplex RNA therapeutics for this debilitating degenerative corneal disease: <https://www.utsouthwestern.edu/labs/mootha/>

The candidate will work on a project aimed to understand the cell type specificity of repeat expansion disorders and the molecular events linking CUG repeat RNA accumulation to end-stage Fuchs' dystrophy. The candidate will also participate in pre-clinical development of oligonucleotide therapeutics for eye disease. The candidate will have access to patient derived cell-, patient derived tissue-, and mouse- model systems to study repeat RNA mediated corneal and neurodegenerative disease. This is an exciting opportunity for a candidate to gain expertise in human genetics, genomics molecular genetics, transcriptomic methods, imaging of the mouse eye, and pre-clinical development of oligonucleotide and gene therapies.

The ideal candidate will hold a Ph.D. and/or M.D. degree and have strong cell and molecular biology skills. Information on our postdoctoral training program, benefits, and a virtual tour can be found at <http://www.utsouthwestern.edu/postdocs>.

Interested applicants should email a CV, a brief statement of research interests and goals, and a list of three references to:

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[Venkateswara Mootha, M.D. - Faculty Profile - UT Southwestern](#)
<https://www.utsouthwestern.edu/labs/mootha/>

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