

Postdoctoral position to explore the role of DNA methylation in the etiology, severity, and progression of glaucoma and age-related macular degeneration

Please submit a CV and names and contact information for 3 references by email to Dr. Shannath Merbs (smerbs@jhmi.edu).

A postdoctoral position is available immediately at the Wilmer Eye Institute, Johns Hopkins University School of Medicine, to begin a project to explore the hypothesis that alterations in DNA methylation accompany and may actually be causally-related to the development of glaucoma and AMD. The NIH Epigenomics Roadmap-funded position will involve creating a detailed, genome-wide map of the DNA methylation changes in the human retina that are associated with these two diseases. Disease-affected cell populations will be individually isolated by laser capture microdissection, and genomic DNA samples will be compared to samples from the same cell population from age- and sex-matched normal control eyes on tiling arrays after enrichment for methylated or unmethylated DNA. Differentially methylated areas will be identified by pair-wise comparisons between normal and diseased eyes. Nearby annotated genes will be identified as candidates for having disease-specific DNA methylation patterns and will be further investigated. The post-doc will attend the yearly *Roadmap Epigenomics Program Investigators' Meeting*. Applicants should be motivated and independent, have prior experience using epigenetic techniques and/or arrays, and be willing to spend at least 3 years in the lab.