UC San Diego
SHILEY EYE CENTER

# News Release

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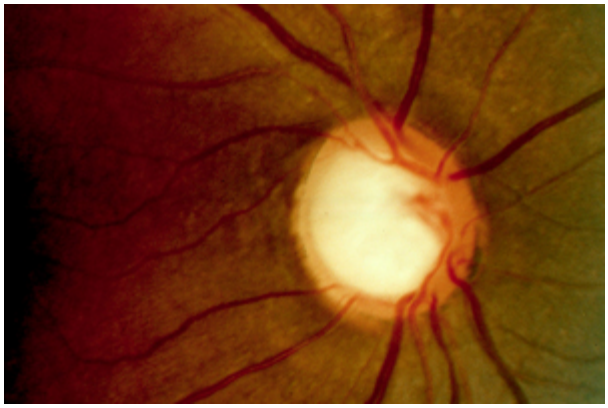
## $6.4 Million Grant Funds Glaucoma Study in African-Americans

A study led by Robert N. Weinreb, chairman and Distinguished Professor of Ophthalmology at the University of California, San Diego School of Medicine, has received a $6.4 million, 5-year grant from the National Eye Institute, part of the National Institutes of Health, to elucidate the genetics of glaucoma in persons of African descent.



Glaucoma

Glaucoma is the leading cause of blindness in African-Americans. It is four to five times more likely to occur in persons of African descent, and up to 15 times more likely to cause meaningful visual impairment in this group compared to those of European descent.

The overall goal of the study, “ADAGES III: contribution of genotype to glaucoma phenotype in African-Americans,” is to identify glaucoma genes in this high-risk, minority population, particularly persons who have rapidly worsening vision. Weinreb has teamed with Jerry Rotter, MD, Distinguished Professor of Pediatrics, Medicine and Human Genetics at Harbor-UCLA Medical Center, a renowned genetics expert, to identify relevant genes, develop predictive models for glaucoma diagnosis and progression and discover new drug targets for therapies to reduce the visual impact of glaucoma blindness.

Glaucoma results in vision loss due to damage to the optic nerve, which is irreversible if undetected or untreated. The most common form of glaucoma is called primary open angle glaucoma (POAG). The number of persons with diagnosed POAG in the United States is expected to be more 3.3 million by 2020, with millions more undiagnosed. While glaucoma affects all races, persons of African descent are disproportionately affected.

“The lack of understanding about the cause of this disease impedes our ability to identify and treat it early in its development,” said Weinreb, who is also director of the Shiley Eye Center, part of the UC San Diego Health System. “Evidence of genetic contribution in the pathogenesis of POAG is well established. Since POAG tends to run in families, it is critical to identify the genetic basis of the disease in order to develop effective therapies for early intervention.”

“A better understanding of the relationship among the stage of disease, the rate of change, ancestry, and other important risk factors being tracked in the ongoing African Descent and Glaucoma Study (ADAGES) will allow us to evaluate the relationship between genetics, visual loss and structural damage in this high-risk group,” added Linda Zangwill, PhD, a professor of ophthalmology at UC San Diego and study co-investigator.

The study will obtain detailed phenotypes – a composite of all observed characteristics or traits of an individual – of more than 2,000 subjects, establish a repository and implement a data-coordinating center at UC San Diego, as well conduct comprehensive genetic studies.

The recruitment, enrollment and phenotyping of both established and new subjects will occur at four clinical centers: UC San Diego School of Medicine; New York Eye and Ear Infirmary; University of Alabama at Birmingham; and a private practice in the Atlanta, Ga. area.

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