



**DECADE OF VISION**  
an initiative of the **2010-2020**  
Alliance For Eye And Vision Research

## **THE ALLIANCE FOR EYE AND VISION RESEARCH**

*In conjunction with:*

**Research to Prevent Blindness  
American Glaucoma Society  
Assoc. for Research in Vision and Ophthalmology  
Glaucoma Research Foundation  
Optometric Glaucoma Society**

*Invites you to join us for a Luncheon Briefing to Recognize  
World Glaucoma Week 2019 (March 10-16)*

### ***Understanding the Genetic Basis of Glaucoma to Develop Vision Loss Prevention Strategies***

**Wednesday, March 6, 2019**

**12 Noon - 1:15 pm**

**House Rayburn 2168 (Gold Room)**

**Featuring Speaker**

**Louis R. Pasquale, MD, FARVO**

**New York Eye and Ear of Mount Sinai**

**Icahn School of Medicine at Mount Sinai**

**Please R.S.V.P. to**

**Dina Beaumont @ 202-407-8325 or [dinabeau@aol.com](mailto:dinabeau@aol.com)**

**AEVR, a 501(c)3 Non-Profit Educational Foundation, is pleased to host this widely attended event featuring an eye-healthy luncheon.**

***Understanding the Genetic Basis of Glaucoma to Develop  
Vision Loss Prevention Strategies***  
**Recognizing World Glaucoma Week 2019 (March 10-16)**  
**March 6, 2019, 12:00 – 1:15 pm, House Rayburn 2168 (Gold Room)**  
**RSVP to: 202-407-8325 or [dinabeau@aol.com](mailto:dinabeau@aol.com)**

**What is glaucoma and why is it important?**

Glaucoma, the second leading cause of preventable vision loss in the United States, is a neurological disease affecting the optic nerve and causing loss of peripheral vision—and ultimately blindness. It affects more than 2.7 million Americans over age 40, with that number estimated to more than double by year 2050. It includes both diagnosed and undiagnosed cases, as often individuals are unaware that they have the disease until vision is lost. It is a driving factor—along with cataract and diabetic retinopathy—in the annual cost of vision impairment reaching \$717 billion in inflation-adjusted dollars by year 2050.

Certain characteristics such as age, ethnicity, high blood pressure, high intraocular pressure (IOP), and optic nerve appearance are associated with disease development. Groups at highest risk include African Americans over age 40, individuals over age 60, and those with a family history of the disease. In its most common form—primary open angle glaucoma (POAG)—nerve damage results from high IOP, which occurs when the fluid that circulates in and out of the front part of the eye drains inadequately. Research funded by the National Eye Institute (NEI) within the National Institutes of Health (NIH) has resulted in pressure-reducing drug regimens, and NEI's *Ocular Hypertension Treatment Study (OHTS)* found that pressure-reducing eye drops delayed disease onset. In addition to drug regimens, glaucoma is also treated through traditional and minimally invasive surgical techniques—many including the use of Food and Drug Administration (FDA)-approved drainage devices to enhance fluid flow to reduce IOP.

**What is new in the genetic basis of glaucoma and how will it lead to treatments?**

Featured speaker Louis Pasquale, MD participates in the NEI Glaucoma Human Genetics Collaboration (NEIGHBOR) Consortium and augmented Glaucoma Gene Environment Initiative (GLAUGEN) Study. These collaborative efforts are under the umbrella of a larger NEIGHBOR Overall Operational Database called the NEIGHBORHOOD that involves clinicians and geneticists at multiple institutions throughout the United States. Through mid-2018, the consortium has identified 133 genetic variants that predict glaucoma risk, including 68 that had not been linked previously to IOP. Furthermore, researchers found an almost direct correlation between the magnitude of the genetic variants' effect on eye pressure and their effect on glaucoma risk—meaning that IOP appears to be the overriding factor that determines whether someone develops glaucoma.

**About the Speaker....**

**Louis Pasquale, MD, FARVO** is a Professor of Ophthalmology at the Icahn School of Medicine at Mount Sinai Hospital in New York. He is Site Chair of the Department of Ophthalmology at Mt. Sinai Hospital and Vice Chair of Translational Ophthalmology Research for the Mount Sinai Healthcare System. After briefly addressing unmet need and at-risk populations, he will discuss the NEIGHBORHOOD findings and how future research can determine whether the genetic variants can identify predictive risk factors that may facilitate better diagnosis of and treatment for the disease.

**About World Glaucoma Week 2018...**

The first *World Glaucoma Day* was held on March 6, 2008, and the United States House of Representatives passed H.R. 981, which recognized the event and supported the NEI's efforts to research the causes of and treatments for glaucoma. That day has expanded into a full week of educational events held worldwide, including this annual Briefing to educate Congress about this blinding eye disease.

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