

3rd International Conference on Glaucoma

October 11-12, 2022 | Osaka, Japan

Molecular Genetics of Glaucoma

Harris T, Louis P, Vercellin S

Department of Ophthalmology, University of Miami Miller School of Medicine, Miami, USA

Abstract (600 Word Limit)

Glaucoma, the world's leading cause of irreversible blindness, is a complex disease, with differential presentation as well as ethnic and geographic disparities. The multifactorial nature of glaucoma complicates the study of genetics and genetic involvement in the disease process. This review synthesizes the current literature on glaucoma and genetics, as stratified by glaucoma subtype and ethnicity. Primary open-angle glaucoma is the most common cause of glaucoma worldwide, with the only treatable risk factor being the reduction of intraocular pressure. However, there are variations in RF and genetic factors based on ethnic and geographic differences; it is clear that unified molecular pathways accounting for POAG pathogenesis remain uncertain, although inflammation and senescence likely play an important role (600 word limit).

Importance of Research (200 Word Limit)

Glaucoma is the world's leading cause of irreversible blindness, implicated in approximately 12% of cases globally. Glaucoma

represents a degenerative optic neuropathy characterized by the progressive degeneration of retinal ganglion cells and the retinal nerve fiber layer (RNFL), which leads to corresponding visual field defects. While the major risk factor (RF), and only modifiable RF, for disease onset and progression is an elevated intraocular pressure (IOP), the pathogenesis of the disease is both multifactorial and still poorly understood (200 word limit).

References (15-20)

1. Quigley H.A., Broman A.T. The number of people with glaucoma worldwide in 2010 and 2020. *Br. J. Ophthalmol.* 2006;90:262–267.
2. Wang J., Yusufu M., Khor C.C., Aung T., Wang N. The genetics of angle closure glaucoma. *Exp. Eye Res.* 2019;189:107835.
3. Challa P. Genetics of pseudoexfoliation syndrome. *Curr. Opin. Ophthalmol.* 2009;20:88–91.
4. Aboobakar I.F., Allingham R.R. Genetics of exfoliation syndrome

and glaucoma. *Int. Ophthalmol. Clin.* 2014;54:43–56.

5. Wilensky J.T., Gandhi N., Pan T. Racial influences in open-angle glaucoma. *Ann. Ophthalmol.* 1978;10:1398–1402.

7. Racette L., Wilson M.R., Zangwill L.M., Weinreb R.N., Sample P.A. Primary open-angle glaucoma in blacks: A review. *Surv. Ophthalmol.* 2003;48:295–313.

7. Youngblood H., Hauser M.A., Liu Y. Update on the genetics of primary open-angle glaucoma. *Exp. Eye Res.* 2019;188:107795.

8. Sihota R., Agarwal H.C. Profile of the subtypes of angle closure glaucoma in a tertiary hospital in north India.

9. Das J., Bhomaj S., Chaudhuri Z., Sharma P., Negi A., Dasgupta A. Profile of glaucoma in a major eye hospital in north India.

10. Day A.C., Baio G., Gazzard G., Bunce C., Azuara-Blanco A., Munoz B., Friedman D.S., Foster P.J. The prevalence of primary angle closure glaucoma in European derived populations: A systematic review.

3rd International Conference on Glaucoma

October 11-12, 2022 | Osaka, Japan

Biography (200 Word Limit)

Harris T has his expertise in evaluation and passion in improving the health and wellbeing. His open and contextual evaluation model based on responsive constructivists creates new pathways for improving healthcare. He has built this model after years of experience in research, evaluation, teaching and administration both in hospital and education institutions. Harris pursued in the University of Miami Miller School of Medicine, Miami, USA (200 word limit)



About Institute/Lab (200 Word Limit)



The University of Miami Leonard M. Miller School of Medicine is the graduate medical school of the University of Miami. Founded in 1952, it is the oldest medical school in the state of Florida (200 word limit).

NOTE: This is a sample abstracts. Conference/Journal name will be changed while publishing respective abstract in supporting journal website.