

From genes to glaucoma: identifying glaucoma pathways

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Research question and background

Research on the genetic basis of glaucoma has been very successful in recent years. DNA variants in more than 50 genes are now known to influence the risk of this major eye disease. As a first step towards elucidating glaucoma pathophysiology, the current research project aims to determine which of these candidate glaucoma disease genes are expressed in the specific eye tissues involved in glaucoma (ciliary body, cornea, iris, trabecular meshwork, retinal ganglion cells, retinal nerve fiber layer and optic nerve head). This will be studied in human donor eyes, using *in situ* hybridization and immunohistochemistry.

Methods and tissues used

In November 2014, five donor eyes were obtained via the NBB for pilot studies in order to optimize the methods for gene expression localization (immunohistochemistry and RNA *in situ* hybridisation).

Results and conclusion

The project has just started and is in progress.