Glaucoma Research
Life in the Horner Lab
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Glaucoma: A Global Overview

- A group of eye conditions that lead to damage of the optic nerve
  - Damage is largely due to an increase in intracocular pressure (IOP)
- Second most common cause of blindness in US
- 3 Major Types
  - Open angle, closed angle, congenital
Basic Eye Anatomy

Normal Eye Anatomy

- Zonules
- Sclera
- Cornea
- Iris
- Optic nerve
- Retina
- Choroid
- Macula
- Ciliary body
- Lens
Eyeball preserved in formaldehyde
Resection of Sclera
Extraneous Tissue
Isolation of the Retina and Pigment Epithelium
“Naked” Retina
Techniques for Analysis

- Quantitative Polymerase Chain Reaction (qPCR)
- Western Blot
  - Immunohistochemistry
- Staining/Imaging
Sources

- http://thalamus.wustl.edu/course/eyeret.html