

Overview about the Clinic Cole Eye Institute rare eye donor tissue inventory:

- Foundation Fighting Blindness supported the initial collection of whole globes post mortem from donors with retinitis pigmentosa, Usher syndrome, Stargardt disease, age-related macular degeneration, and other rare inherited retinal degenerative diseases (RDDs). The collection **DOES NOT** include normal eyes.
- The collection is housed at the Cleveland Clinic Foundation, Cole Eye Institute under the direction of Bela Anand-Apte, MD, PhD and Vera L. Bonilha, Ph.D.
- Over 1000 pairs of eyes have been collected since the mid-1980s.
- Most of the tissue samples were fixed in a buffered 4% paraformaldehyde-0.5% glutaraldehyde solution or 10% formalin when the FFB fixative was not available. Upon receiving, the tissue was cut through the ora serrata and anterior and posterior segments and transferred to buffered 2% paraformaldehyde made in D-PBS. Whole globes are imaged before the globes are cut and the tissue is processed for analysis. Detailed information regarding the fixation of individual samples is included in each donation's pathology report.
- Initial fundus microscopy examination is done by Dr. Bonilha and her staff and they provide pathology reports for all donations that are then made available to researchers upon request. Before any tissue is cut and used for further studies, ex-vivo images of the whole globes are obtained by OCT and SLO.
- The most useful donor eyes on which detailed follow up analysis is performed are those with full clinical history and the genetic basis of the disease established. Such donations are extremely rare. More recently, we have successfully isolated DNA from fixed tissue and used these to perform genotyping.
- Tissue samples are available to interested laboratories worldwide in collaborative studies at no cost (except for shipping). Investigators interested in using tissue from the Cole Eye Institute tissue repository should complete the "application for obtaining ocular tissue for research" and submit it to Dr. Bela Anand-Apte at anandab@ccf.org and Vera L. Bonilha at bonilhav@ccf.org. Drs. Anand-Apte and Bonilha will determine if there is tissue available in the collection to meet the investigator's request.

For more information, please visit http://my.clevelandclinic.org/eye/research/donor_program.aspx, a webpage hosted by the Cole Eye Institute on Research and Innovations webpage. On the webpage is a place to see and download an inventory of available tissue.