

Dr. Raquel Lieberman

Professor, Chemistry and Biochemistry

Georgia Institute of Technology

Dr. Lieberman is an Associate Professor of Chemistry and Biochemistry in the College of Sciences at Georgia Institute of Technology. She earned her B.Sc. at Massachusetts Institute of Technology and an M. S. and Ph. D. at Northwestern University. She was a Postdoctoral Research Fellow at Harvard Medical School, Brigham & Women's Hospital, and Brandeis University. Her research areas include biochemistry, biomolecular structure and function, chemical biology, and molecular biophysics.

Lieberman Research Group focuses on protein misfolding and mistrafficking as it relates to inherited forms of glaucoma, and the structure and function of newly discovered integral membrane enzymes that perform proteolysis within the cell membrane, so-called "intramembrane proteases".

Dr. Lieberman is the author of numerous publications and has received numerous awards, including PEW Scholar in Biomedical Sciences, Blanchard Fellowship, Rosalinde and Arthur Gilbert/ American Federation for Aging Research New Investigator Award in Alzheimer Disease, NSF CAREER Award, Glaucoma Research Foundation Shaffer Award for Innovative Glaucoma Research, American Chemical Society Nobel Laureate Signature Award for Graduate Education in Chemistry, and an NIH Postdoctoral Research Fellowship.

"Structure and Misfolding of the Glaucoma-Associated Olfactomedin Domain of Myocilin"

The Lieberman lab uses biophysical, structural, and chemical biology approaches to characterize proteins involved in conformational disorders and ameliorate the misfolding phenotype. A major research effort in the lab has been investigations of the myocilin olfactomedin domain, which is implicated in familial and steroid-induced cases of the prevalent ocular disorder glaucoma. I will present our efforts toward a detailed molecular understanding of myocilin structure, function, and disease pathogenesis, including striking similarities with amyloid diseases, as well as new directions for glaucoma therapeutics.



DATE:

May 11, 2016

TIME:

2:00 p.m.

LOCATION:

366 Colburn Lab