

**Assistant Professor**

January 2024-Present

University of Arizona  
Department of Neuroscience

**EDUCATION & TRAINING**

**Vollum Institute, OHSU**

October 2016-December 2023

**University of Massachusetts Medical School**

September 2012-October 2016

Postdoctoral Fellow

Advisor: Marc R. Freeman, PhD

Development & function of glial ensheathment in *Drosophila* peripheral nerves

**Columbia University**

September 2005-October 2011

PhD, Neurobiology & Behavior

Thesis Advisor: Wesley B. Grueber, PhD

"*Transcriptional control of somatosensory neuron diversification in Drosophila*"

**Stanford University**

June 2003

BA in Human Biology with Honors and University Distinction

Thesis Advisor: Russell D. Fernald, PhD

**PUBLICATIONS**

Kang Y, Jefferson A, Sheehan A, De La Torre R, Jay T, Chiao L, Hulegaard AL, **Corty MM**, Baconguis I, Zhou Z, Freeman MR (2023) "Tweek-dependent formation of ER-PM contact sites enables astrocyte phagocytic function & remodeling of neurons" *bioRxiv* doi:10.1101/2023.11.06.565932

**Corty MM** & Coutinho-Budd J (2023) "*Drosophila* glia take shape to sculpt the nervous system" *Current Opinion in Neurobiology* 79: 102689. Review.

Lassetter AP, **Corty MM**, Barria R, Sheehan AE, Hill JQ, Aicher SA, Fox AN, Freeman MR (2023) "Glial TGF $\beta$  activity promotes axon survival in peripheral nerves." *Journal of Cell Biology* 222(1): e202111053

**Corty MM**, Hulegaard AL, Hill JQ, Sheehan AE, Aicher SA, Freeman MR (2022) "*Discoidin domain receptor* regulates ensheathment, survival, and caliber of peripheral axons." *Development* DOI: 10.1242/dev.200636

Hsu JM, Kang Y, **Corty MM**, Mathieson D, Peters OM, Freeman MR (2021) "Injury-induced inhibition of bystander neurons requires *dSarm* and signaling from glia." *Neuron* 109(3):473-487.

**Corty MM**, Tam J and Grueber WB (2016) "Dendritic diversification through transcription factor-mediated suppression of alternative morphologies." *Development* 143:1351-1362.

**Corty MM** and Freeman MR (2013) Cell biology in neuroscience: Architects in neural circuit design: glia control neuron numbers and connectivity." *J. Cell Biology* 203(3):395-405. Review

**Corty MM\***, Matthews BJ\*, Grueber WB (2009). "Molecules and mechanisms of dendrite development in *Drosophila*." *Development* 136(7):1049-61. Review.

Matthews BJ, **Corty MM**, Grueber WB (2008). "Of cartridges and columns: new roles for cadherins in visual system development." *Neuron* 58(1):1-3. Review.

### **SELECTED INVITED ORAL PRESENTATIONS**

"Virtual Glia" Symposium, 2021  
Myelin Gordon Research Conference, 2018  
Brown University Fly Club, 2016  
Neural Development Gordon Research Seminar and Conference, 2016  
Glia in Health and Disease, CSHL, 2016  
American Society of Neurochemistry Annual Meeting Denver, CO, 2016  
Dendrites: Molecules, Structure, and Function Gordon Research Seminar, 2011  
Dendrites: Molecules, Structure, and Function Gordon Research Seminar, 2009

### **AWARDS & HONORS**

UMass Medical School Dean's Award for Outstanding Contribution for Curricular Development, 2016  
National Science Foundation Graduate Research Fellowship, 2007-2010  
Stanford University Centennial Teaching Assistant Award, 2004  
Phi Beta Kappa, inducted 2003  
Joshua Lederberg Award for Academic Excellence in Human Biology (Top 3 HumBio graduates), 2003  
Bernard and Estelle Shuer Award for Outstanding Neuroscience Research, 2003  
Undergraduate Research Major Grant funded by the Howard Hughes Medical Institute, 2002  
Henry Tien Memorial Award for Outstanding Head Peer Academic Coordinator of the Year, 2002  
American Psychological Association Summer Science Institute Fellow, 2001  
Stanford University President's Award for Academic Excellence in the Freshmen Year, 2000  
Robert C. Byrd Scholar, 1999-2003

### **TEACHING EXPERIENCE**

**Guest Lecturer** September 2023

*Rigor and Reproducibility in Neuroscience Research*, OHSU  
Delivered lecture on "Using Model Organisms (*correctly*): Best Practices & Potential Pitfalls"

**Lecturer** 2017- 2022

*Neuroscience Graduate Program Bootcamp*, OHSU  
Led the module on "Model Organisms in Neuroscience Research" for incoming NGP students.

**Guest Lecturer** March 2021

*Experimental approaches in glia cell development & function*, OHSU  
Delivered lecture on "Neural crest derived glia, nerve formation, & nerve regeneration"

**Course Creator & Instructor** September 2015-January 2016

*Communicating Neuroscience: Learning by Doing*, UMass Medical School  
With another postdoc, proposed, designed, and taught a new practical course on effective scientific communication skills to Neuroscience graduate students. The course is now a standard part of the Neuroscience Graduate Program curriculum, and we received a curriculum development award for its creation.

**Course Creator & Instructor** December 2011-April 2012

*The Promise of Stem Cells*, American Museum of Natural History, NYC  
Independently designed and taught a 6-week enrichment course on stem cell biology & ethics for high school students. Developed new lectures and teaching materials on stem cell biology, applications, and ethics. Taught students how to read and critique original research literature. Designed in-class

experiments and group activities to facilitate understanding. This course was sponsored by an NIH-Science Education Partnership Award to AMNH.

**Teaching Assistant**

January 2009-May 2009

*Neurobiology II: Development & Systems*, Columbia University

Led weekly student discussion seminars focused on dissecting primary literature related to lecture topics. Worked with other TAs to select relevant primary literature for course, conduct exam review sessions, and write and grade exams

**Laboratory Course Assistant**

June 2004-August 2004

*Neural Systems & Behavior*, Marine Biological Laboratory, Woods Hole, MA

Provided lab support for an advanced electrophysiology methods course including daily lab set-up and maintenance of course equipment and animals.

**Head Course Associate**

September 2003-June 2004

Program in Human Biology, Stanford University

Full-time head teaching assistant for the year-long Human Biology “Core” course sequence. Managed team of three other course associates. Wrote weekly problem sets and exams. Developed lesson plans to lead four discussion sections per week in addition to office hours. Coordinated course logistics including creating course syllabi, maintaining course website, preparing readings, grading, and coordinating guest lecturers. Served as primary contact for 200+ enrolled students. Received a Stanford University Centennial Teaching Assistant Award for my work.

**Teaching Assistant**

September 2002

*Understanding the Brain*, Stanford University

Teaching and tutoring support for an intensive and immersive 2-week Sophomore College seminar held just prior to the academic year.

**Writing Tutor**

September 2000-June 2003

Stanford Writing Center, Stanford University

Assisted undergraduate & graduate students at every stage of writing process.

**UNIVERSITY & COMMUNITY SERVICE**

Coordinator, OHSU Glia Journal Club, 2017-2023

*Ad hoc* reviewer: *Nature Communications*, *Genetics*

Chair, Gordon Research Seminar on Neural Development, 2014

Neuroscience Outreach Coordinator & Volunteer, Columbia University, 2006-2011

Mott Hall Science Mentoring, 2007-2009

Neurobiology & Behavior Program Retreat Committee, Columbia University, 2007 & 2009

Stanford Peer Academic Advisor, 2000-2003

Stanford University Judicial Panel, 2000-2003