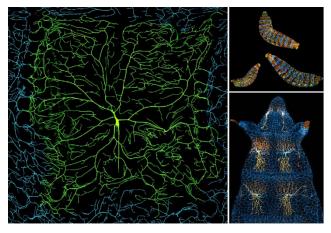


The Chun Han lab (http://han.wicmb.cornell.edu/) is recruiting postdoctoral scholars

We study cell biology of neurons using *Drosophila* as an *in vivo* model system in three closely related research areas:

(1) Dendrite morphogenesis: We study how neurons develop cell type-specific dendrite morphology during normal development and how this process is impaired in neurological disorders. We use a combination of cutting-edge technologies in molecular biology, cell biology, microscope, genetics, and genomics. In particular, we use several novel approaches developed in our lab, including MAGIC to search for novel genes controlling dendrite patterning, CRISPR-TRIM to characterize gene



function, <u>LarvaSPA</u> time-lapse imaging to investigate dendrite dynamics, <u>optogenetics</u> to manipulate endogenous proteins in specific dendritic branches, and <u>machine learning</u> and quantitative image analysis to extract dendrite morphological information.

- (2) Phosphatidylserine (PS) exposure in neurodegeneration & beyond: We study how the externalization of the "eat-me" signal PS is regulated in neurons and how PS is detected by neuron-eating phagocytes during neurodegeneration. We are also interested in how neurons are protected from phagocytosis-mediated neurodegeneration when eat-me signals are exposed on their surface.
- (3) Novel CRISPR tools for studying neurobiology: We are developing novel CRISPR tools in *Drosophila*, including tissue-specific CRISPR and genome-wide resources for applying the MAGIC technique. We have broad interests in innovative applications of CRISPR systems in *Drosophila*.

We welcome people who bring new ideas and expertise to our team. Candidates should have a strong background and technical skills in genetics, cell biology, and microscopy. Experience with the *Drosophila* system is desirable. Candidates should be independent and highly motivated, with no more than one year of postdoctoral experience. Generous stipends and benefits will be provided according to NIH NRSA postdoctoral stipend levels.

As the home of thirteen highly interactive labs specialized on various aspects of cell biology research, the Weill Institute houses numerous state-of-art imaging, biochemical, molecular biology equipment on the central Cornell campus. Cornell provides abundant training opportunities and excellent support for postdoctoral fellows. Diversity and Inclusion are a part of our heritage. The Cornell Ithaca campus is located in a scenic environment of the Finger Lakes in Upstate New York, and is known as one of the most beautiful campuses in the United States. Ithaca also offers culturally diverse communities.

Interested candidates should contact Dr. Chun Han (<u>chun.han@cornell.edu</u>) and provide a research statement, CV, and three reference letters.