

Neuroscience Winners

1st Place – Hana Yeh



Hana joined the Laboratory of Molecular NeuroTherapeutics after completing her internship at Pfizer in 2016. Hana is primarily interested in the effect of pre- and post-natal environmental stress on microglial function and their chronic effect on neural plasticity and circuitry. She has a keen interest in the transcriptome and epigenetic landscape of microglia after maternal insult, and published a highly comprehensive review of microglia-specific transcriptional factors as the first author in *Trends in Molecular Medicine* in 2019. Her thesis study is focused on the therapeutic evaluation of the depletion and renewal of microglia in the animal models of maternal immune activation. This is a comprehensive characterization of the mouse model using behavioral, electrophysiological, neuroanatomical and transcriptomic examinations. Hana conducted this grand research in a very careful and tireless manner. This work was recently published in *Molecular Psychiatry* as the co-first author. In addition to her excellent academic activities, Hana also is a frequent volunteer for student and department activities and especially for GPN recruitment via the neuroscience graduate student organization.

2nd Place – Greg Wirak



Greg is an excellent graduate researcher in the Gabel lab. He has helped to establish, refine and implement Pan-neuronal imaging in *C. elegans* using a new light-sheet microscope. His work to date has generated significant findings demonstrating how exposure to volatile anesthetics during development alters neuronal dynamics in the aged animal. Moving forward he is applying these imaging techniques and methodologies to the exciting study of neuronal aging and decline in general. Beyond the lab, Greg is highly engaged in the Graduate Program for Neuroscience, playing a major role in recruitment, and outreach activities as a vital member of its student organizations. He is also highly committed to science education for the larger community.

3rd Place – Jenny Klein



Jenny Klein began her work on brain development in Down syndrome (DS) in 2017, prompted by her long-term desire to understand this developmental disorder at the molecular level. Based on prior work indicating that the brains of people with DS have reduced white matter, Ms. Klein initiated a new project in the lab using induced pluripotent stem cells derived from people with DS to study the development of oligodendrocyte cells. Jenny has spent considerable effort to master these cultures, which are exceedingly difficult to establish and need to be maintained for protracted time periods. These efforts will be extremely important as her results will be directly pertinent to the health and quality of life for people with DS.