Summer Research Openings

Opportunity with Dr. Tamar Green laboratory
Lab Mentor: Monica Siqueiros Sanchez
Project Title: Towards clinical translation of imaging studies in neurofibromatosis type 1

Project Description:
The Green lab takes a “genetics first” approach to understanding neurodevelopmental disorders by studying children with neurogenetic syndromes, specifically “the rasopathies”. Rasopathies are a collection of syndromes where genetic mutations affect the RMK pathway and result in multisystemic disorder, including measurable effects on behavior and cognition (e.g., deficits in cognitive and social skills). One of their projects focuses on one of these conditions, neurofibromatosis type (NF-1). Studies of NF1 show compelling evidence for abnormalities in structural MRI, whole-brain abnormalities in white matter microstructure, and resting-state fMRI. However, the usability of these effects as outcome measures is limited. Here, the aim is to utilize these three imaging modalities along with a battery of cognitive-behavioral assessments, to define a syndrome-specific profile of brain-based correlates that can serve as a set of sensitive markers for intervention effects

Key Words: MRI, neurogenetic syndromes, ADHD

If this type of research interests you and you would like to participate or just find out more, please contact Dr. Monica Siqueiros at msiuei@stanford.edu and/or visit the BRIDGE Lab website: https://web.stanford.edu/group/bridgelab/