

Stanford



Trace Stay

Postdoctoral Research Fellow, Neurobiology

Bio

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Baylor College Of Medicine (2019)

STANFORD ADVISORS

- Jennifer Raymond, Postdoctoral Faculty Sponsor

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am investigating the sensory pathways that contribute to establishing the highly conserved vestibulo-ocular reflex, and how they modify the reflex through learning.

This complements my previous studies of the uvula-nodulus by examining dynamic adaptations in flocculus, the other half of the traditional vestibulo-cerebellum. I will be using simultaneous population recordings from multiple nodes in the vestibular circuit while providing diverse behavioral stimuli, then using general linear modeling to infer the relative impact of predictor variables on response variables. Additionally, I will use genetic tools to perturb elements of the signaling pathways to examine their respective role in establishing both the temporal filtering done by target neurons as well as gain and phase adaptation.