Title: Cortical circuits underlying social visual perception in the primate brain

Abstract: The primate inferotemporal cortex has exquisite response selectivity to complex visual stimuli, including categorical responses to faces and other high-level features related to social perception. Understanding the contribution of these selective neural responses in shaping perception, action, and behavior is a challenging topic. I will present preliminary data on three new approaches for studying the nature of neural representation in the inferotemporal cortex. The first approach employs longitudinal single unit recording to study the emergence, plasticity, and stability of selective responses over time scales of weeks. The second approach evaluates fMRI and single-unit responses in the monkey brain during active viewing of socially rich natural videos. The third approach uses fMRI to map visual category selective responses in the ventral stream of the marmoset, with the ultimate aim of understanding the homology across primate or mammalian species. Together, these lines of research provide new perspectives on selective visual responses in the primate inferotemporal cortex that are thought to be important for social cognition.