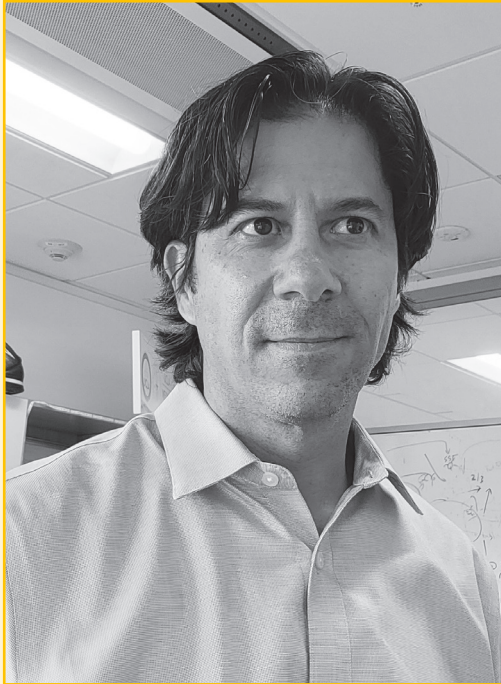


Virtual SEMINAR **M** | MCDB



Carlos Portera-Cailliau
UCLA

Friday October 22, 2021
Noon - 1:00 PM

Zoom link & passcode in the MCDB weekly update or email us for access:
mcdb.seminar.info@umich.edu

M | MOLECULAR, CELLULAR, AND
DEVELOPMENTAL BIOLOGY

Host: Sam Kwon

Cortical interneurons and sensory processing in a model of autism

Atypical sensory processing occurs in a majority of individuals with Fragile X syndrome (FXS), the leading inherited cause of autism. Our lab recently discovered that *Fmr1* knockout (*Fmr1^{-/-}*) mice, a model of FXS, manifest avoidance behaviors in response to repetitive tactile stimuli, as well as delayed perceptual learning of a visual discrimination task. At the circuit level, we found that hypoactivity of GABAergic parvalbumin interneurons (PV-INs) in the mutant mice in somatosensory and visual cortices. This hypofunction of PV interneurons begins at very early developmental stages in *Fmr1^{-/-}* mice. Approaches that increase PV cell firing in *Fmr1^{-/-}* mice could restore circuit function.