

Postdoc opportunity  
Simpson lab | UCSB



Dad's smudg  
The fly is rubbing his hands  
Rubbing his legs  
Duo Kobayashi (1827)

やれ打つな  
蠅が手をする  
足をする

## How neural circuits execute action sequences

**The Simpson Lab at UCSB is recruiting postdocs.** We investigate how neural circuits coordinate complex motor sequences. To do so, we study grooming behavior in *Drosophila*, an organism where circuit mapping is approachable via targeted genetic manipulation, comprehensive imaging, and behavioral analyses. Postdocs are invited to work on a range of open question in neuroscience including: • how motor control circuits coordinate movements, • how descending neurons, the low-dimensional output of the central brain, interfaces with motor control circuits, and • how circuit motifs combined and compare sensory information to influences action selection or transition probabilities. The lab is located at UC Santa Barbara, embedded within a vibrant community of neuroscientists and neuroengineers, overlooking the Pacific Ocean.

**The position:** Our lab is diverse in all senses: we welcome people who bring new ideas and experiences to our shared science. To date, we employ a range of experimental approaches including quantitative behavioral analysis, neurogenetics, neuroanatomy at the light and EM levels, and functional imaging. We would be happy to hear from creative, rigorous scientists with relevant expertise, in particular: • Two-photon imaging of GCaMP reporters and/or electrophysiologic analysis of neural activity • Computational reconstruction of neurons in electron microscopy datasets and connectivity analysis • Design, analysis, and interpretation of behavioral experiments, preferably using machine learning methods; high-speed or multi-camera imaging is a plus • Instrument design, electrical or mechanical engineering, computer programing, or computational modeling • Fly genetics, molecular cloning, neuroanatomy, and immunohistochemistry. While postdoc applicants should be competitive for independent fellowships and are expected to apply in the interest of their own professional development, funding is available through current NSF and NIH grants.



**To apply:** To apply, start a conversation by emailing [jhsimpson@ucsb.edu](mailto:jhsimpson@ucsb.edu) with specific project ideas. Please use the subject line "Postdoc opportunity" and attach a CV and contact information for three references.

<https://simpson.mcdb.ucsb.edu/>