Kevin Sit

sit@berkeley.edu

Education

2022 **University of California: Santa Barbara**
Ph.D. Psychological and Brain Sciences

2016 **University of California: San Diego**
B.S. Physiology and Neuroscience

Experience

2022–Present **Postdoctoral Researcher**
University of California: Berkeley; Berkeley, CA
Advisor: Dr. Hillel Adesnik

2022–2022 **Postdoctoral Researcher**
University of California: Santa Barbara; Santa Barbara, CA
Advisor: Dr. Michael Goard

2017–2022 **Teaching Assistant**
University of California: Santa Barbara; Santa Barbara, CA

2016–2022 **Graduate Student Researcher**
University of California: Santa Barbara; Santa Barbara, CA
Advisor: Dr. Michael Goard

2014–2016 **Research Assistant**
University of California: San Diego; La Jolla, CA
Advisors: Dr. George Koob and Dr. Olivier George

2014–2016 **Laboratory Assistant**
Catalent, Inc.; San Diego, CA

2014–2015 **Teaching Assistant**
University of California: San Diego; La Jolla, CA
Advisor: Dr. Christopher Wills

2010–2012 **Biology Tutor**
MT Learning Center; Fremont, CA

2008–2012 **Information Systems Technology Specialist**
MT Learning Center; Fremont, CA

2008–2009 **Biology Teacher**
Math Science Nucleus; Fremont, CA

Awards and Achievements

2025 **Cosyne Presenter Travel Grant**
Cosyne Meeting Committee

2023 **Cosyne Presenter Travel Grant**
Cosyne Meeting Committee

2022 **Sculpted Light in the Brain Travel Grant**
SLB Organizing Committee

2021 **CARES MSI Summer Grant**
University of California: Santa Barbara

2021 **Doctoral Student Travel Grant**
University of California: Santa Barbara

2020 **Harry J. Carlisle Award**
University of California: Santa Barbara

2019 **Psychological and Brain Sciences Conference Fellowship**
University of California: Santa Barbara

2018 **Graduate Fellowship**
University of California: Santa Barbara

2017 **Graduate Fellowship**
University of California: Santa Barbara

2016 **Regent's Fellowship**
University of California: Santa Barbara

2015 **Study Abroad Research Scholarship**
University of California: San Diego

2012-2016 **Provost Honors**
University of California: San Diego

Publications

2022 **Sit K.K.**, Goard M.J., *Coregistration of visual cues and heading in retrosplenial cortex*. Nature Communications 14, 1992(2023).
doi: 10.1101/2022.03.25.485865

2022 Telias M.*, **Sit K.K.***, Frozenfar D., Smith B., Goard M.J.† Kramer R.H.†, *Retinoic acid inhibitors mitigate vision loss in a mouse model of retinal degeneration*. Science Advances 8, 11 (2022).
doi: 10.1126/sciadv.abm4643
*: co-first author; †: co-last author

2022 Wolcott N.S., **Sit K.K.**, Raimandi G., Hodges T., Shansky R.M., Galea L.A.M., Ostroff L.E., Goard M.J., *Automated classification of estrous stage using deep learning*. Sci Rep. 12(1):17685 (2022).
doi: 10.1038/s41598-022-22392-w

2021 Redman W.T., Wolcott N.S., Montelisciani L., Luna G., Marks T.D., **Sit K.K.**, Yu C., Smith S.L., Goard M.J., *Long-term transverse imaging of the hippocampus with glass microperiscopes*. eLife 11:e75391 (2022).
doi: 10.7554/eLife.75391

2020 **Sit K.K.**, Goard M.J., *Distributed and retinotopically asymmetric processing of coherent motion in mouse visual cortex*. Nature Communications 11, 3565 (2020).
doi: 10.1038/s41467-020-17283-5

Posters and Presentations

2026 **Center for Neural Engineering and Prosthetics Retreat** (presentation)
Precise bidirectional control of neural activity using a multicolor holographic microscope
Sit K.K., Adesnik, H.
San Francisco, CA

2025 **Society for Neuroscience: Neuroscience 2025** (presentation)
Balanced two-photon holographic bidirectional optogenetics defines the mechanism for stimulus quenching of neural variability
Sit K.K., Huang C., Schwalger T., Veit J., Doiron B., Adesnik H.
San Diego, CA

2025 **Cosyne** (presentation)
Balanced two-photon holographic bidirectional optogenetics defines the mechanism for stimulus quenching of neural variability
Sit K.K., Huang C., Schwalger T., Veit J., Doiron B., Adesnik H.
Montreal, Quebec, Canada

2023 **Cosyne** (poster)
Coregistration of heading to visual inputs in retrosplenial cortex
Sit K.K., Goard M.J.
Montreal, Quebec, Canada

2022 **Sculpted Light in the Brain** (poster)
Coregistration of heading to visual inputs in retrosplenial cortex
Sit K.K., Goard M.J.
Boston, MA

2022 **iNAV 2022** (poster)
Coregistration of heading to visual inputs in retrosplenial cortex
Sit K.K., Goard M.J.
Online

2021 **Society for Neuroscience: Neuroscience 2021** (poster)
Investigation of circuits underlying integration of heading inputs in retrosplenial cortex
Sit K.K., Goard M.J.
Online

2021 **Society for Neuroscience: Neuroscience 2021** (poster)
Long-term transverse imaging of the hippocampus with glass microperiscopes
Redman W.T., Wolcott N.S., Montelisciani L., Luna G., Marks T.D., **Sit K.K.**, Yu C., Smith S.L., Goard M.J.
Online

2021 **Society for Neuroscience: Neuroscience 2021** (poster)
Structural plasticity of apical dendritic spines in hippocampal CA1 is modulated by sex-specific steroid hormones
Wolcott N.S., Redman W.T., **Sit K.K.**, Goard M.J.
Online

2021 **Pavlovian Society Annual Meeting** (poster)
Chronic measurement of dendritic spine turnover in CA1 across the estrous cycle
Wolcott N.S., Redman W.T., **Sit K.K.**, Goard M.J.
Online

2020 **NeuroNex3 Annual Meeting** (poster)
Modular system of automated high-throughout training of mice
Sit K.K., Bess N., Bessera N., Goard M.J.
Online

2019 **BRAIN Initiative Investigator's Meeting** (poster)
Modular automated training system for freely moving and head restrained behavioral tasks
Sit K.K., Bess N., Bessera N., Goard M.J.
Online

2019 **NeuroNex2 Annual Meeting** (poster)
A modular, cost-effective solution for automated behavioral training of mice
Sit K.K., Bess N., Bessera N., Goard M.J.
Chicago, IL

2019 **Society for Neuroscience: Neuroscience 2019** (poster)
Ditsributed and retinotopically asymmetric processing of coherent motion in mouse visual cortex
Sit K.K., Goard M.J.
Chicago, IL

2019 **NRI Neuroscience Symposium** (presentation)
Retinotopically distributed processing of coherent motion in mouse visual cortex
Santa Barbara, CA

2018 **Psychological and Brain Sciences Minicon** (presentation)
Visual stimulus feature processing in mouse visual cortex
Santa Barbara, CA

Peer Review

2021 **NeurIPS**
Shared Visual Representations in Human & Machine Intelligence Workshop

Outreach

2018–2023 **Access Grads Program**
Mentored students of underrepresented groups interested in going to graduate school.
Santa Barbara, CA

2018–2020 **MATLAB Seminar**
Designed and instructed a summer seminar introducing undergraduate students to scientific programming using MATLAB.
Santa Barbara, CA

2019–2020 **Research Mentorship Program**
Mentored and supervised a high school student in designing and conducting an independent research project, culminating in a poster presentation.
Santa Barbara, CA

2018 **Society for Advancement of Hispanic/Chicanos and Native Americans in Science (SACNAS)**
Led laboratory tours and answered questions to high school and college students interested in pursuing STEM educations.
Santa Barbara, CA