

Shanna Coop

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EDUCATION

UNIVERSITY OF ROCHESTER | Rochester, NY

PhD, Brain and Cognitive Sciences

Expected 2021

MA, Brain and Cognitive Sciences

2015-2018

UNIVERSITY OF CALIFORNIA, RIVERSIDE | Riverside, CA

2009-2013

BS, Neuroscience

RESEARCH EXPERIENCE

MITCHELL LAB | University of Rochester

2015- Present

Graduate Student

- Utilized psychophysics, neurophysiology, and anatomy to study the neural mechanisms underlying eye movements and perception in the marmoset.

MILLER LAB | University of California, San Diego

2014- 2015

Lab Technician

- Investigated the neural networks underlying social communication in marmosets
- Managed lab operations and primate colony and mentored undergraduate students
- Assisted in establishing an optogenetic prep in marmosets

STANLEY LAB | University of California, Riverside

2011-2013

Research Assistant

- Designed neuropharmacology experiments that assesses food intake and other behaviors in rats
- Performed special stains, immunohistochemistry, and perfusions for histology

TEACHING EXPERIENCE

BCS/NSC 203 Lab in Neurobiology | University of Rochester

Spring 2016, 2017,2018

Graduate Teaching Assistant

- Introduces the various experimental methods used in neurobiological research: anatomical, behavioral, molecular, and physiological approaches to studying neural organization and function

INVITED TALKS

“Neuronal Mechanisms of Pre-saccadic Attention and Foveal Processing in Middle Temporal Area of the Marmoset”

(2020): CVS Retreat, Beaver Hollow, NY.

“Neuronal Mechanisms of Pre-saccadic Attention in Middle Temporal Area of the Marmoset Monkey”

(2019): Marmoset Bioscience Symposium, Chicago, IL.

“Psychophysical Measurement of Marmoset Acuity and Myopia” (2016): OSA Fall Vision Meeting, Rochester, NY

PUBLICATIONS

- Nummela, S. U., **Coop, S. H.**, Cloherty, S. L., Boisvert, C. J., Leblanc, M., Mitchell, J. F. (2016). Psychophysical Measurement of Marmoset Acuity and Myopia. *Developmental Neurobiology*, 77(3), 300-313.
- MacDougall, M., Nummela, S. U., **Coop, S.**, Disney, A., Mitchell, J. F., & Miller, C. T. (2016). Optogenetic manipulation of neural circuits in awake marmosets. *Journal of Neurophysiology*, 116(3), 1286-1294.
- Urstadt, K. R., **Coop, S. H.**, Banuelos, B. D., & Stanley, B. G. (2013). Behaviorally specific versus non-specific suppression of accumbens shell-mediated feeding by ipsilateral versus bilateral inhibition of the lateral hypothalamus. *Behavioral brain research*, 257, 230-241.

HONORS AND AWARDS

Elsevier/Vision Research Travel Award Vision Sciences Society	2020
NIH Training Grant Recipient Center for Visual Science, Rochester	2018-19/2019-20
Trainee Travel Award Recipient Marmoset Bioscience Symposium	2019
Computational Vision Summer School Attendee Computational Neuroscience Tubingen	2019
Primate Cognitive Neuroscience Summer School Attendee & Travel Award Recipient Primate System Neuroscience DFG, Germany	2019

CONFERENCE ABSTRACTS

- S Coop**, Yates J, Mitchell JF (2020): Vision Sciences Society, Virtual. Enhanced neural tuning in middle temporal area (MT) of the marmoset monkey during pre-saccadic attention
- Yates JL, **Coop SH**, Mitchell JF (2020): Vision Sciences Society, Virtual. Beyond fixation: foveal receptive field estimation in freely viewing primates.
- GH Sarch, Yates J, **SH Coop**, JF Mitchell (2019): Marmoset Bioscience Symposium, Chicago
IL. Identification of cortical layers from current source density (CSD) analysis and two local field band-power measures in marmoset V1
- SH Coop**, Yates J, Mitchell JF (2019): The Society for Neuroscience, Chicago, IL. Neuronal mechanisms of pre-saccadic attention in middle temporal area of the marmoset monkey
- Yates JL, **Coop SH**, Mitchell JF (2019): Vision Sciences Society, St Pete, FL. V1 neurons tuned for high spatial frequencies show pre-saccadic enhancement.
- Yates JL, **Coop SH**, Mitchell JF (2018): The Society for Neuroscience, San Diego, CA. Presaccadic modulation of sensory responses in primary visual cortex
- SH Coop**, G Bunce, J Mitchell (2017): The Society for Neuroscience, Washington D.C.
Spatial cueing and planned saccade tasks in the marmoset
- V Jovanovic, **S Coop**, CT Miller (2014): The Society for Neuroscience, Washington D.C.
Vocal Signal Processing and social categorization during natural communication in marmoset frontal cortex neurons
- M Macdougall, **S Coop**, J Mitchell, CT Miller (2014): The Society for Neuroscience, Washington D.C. A preparation for optogenetic photostimulation in marmoset cortex
- SH Coop**, KR Urstadt, O Shahin, BG Stanley (2013): The Society for Neuroscience, San Diego, CA.
Antagonistic Interactions between Lateral Hypothalamic NMDA Receptors and GABA_A Receptors Regulating Food Intake
- KR Urstadt, B Banuelos, **S Coop**, BG Stanley (2012): The Society for the Study of Ingestive Behavior, Zurich, Switzerland. Ipsilateral Lateral Hypothalamic NMDA Receptor Antagonism Suppresses Accumbens Shell-Mediated Eating in a Behaviorally Specific Manner

LEADERSHIP

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| Women in Neurosciences (WINS) Member University of Rochester | 2019-2020 |
| <ul style="list-style-type: none">Participated in the organization that promotes equity for women in academia and leadership roles. | |
| Student Organizer for Graduate Recruitment BCS, University of Rochester | 2017-2019 |
| <ul style="list-style-type: none">Helped organize and run the BCS graduate recruitment weekend for two years. | |
| Faculty Search Member BCS, University of Rochester | 2017-2018 |
| <ul style="list-style-type: none">Served as the graduate student member on the Systems Neuroscience hire search committee. | |
| Volunteer Presenter Rochester Museum & Science Center, "Ladies in the Lab" | 2017 |
| <ul style="list-style-type: none">Provided a hands-on demonstration of electrophysiology to the public during an event that celebrated how women have impacted the sciences. | |
| Stem Mentor University of California San Diego | 2014-2015 |
| <ul style="list-style-type: none">Mentored several female undergraduate research assistants, including two who were through UCSD's Initiative for Maximizing Student Development (IMSD) and Training Academy for Research in the Sciences (STARS) | |
| Resident Adviser University of California Riverside | 2010-2012 |
| <ul style="list-style-type: none">Led and provided support to a residence hall community of 70 first year students | |