

Melissa R. Warden, Ph.D.

Assistant Professor and Miriam M. Salpeter Fellow
Department of Neurobiology and Behavior, Cornell University

Contact Information

W201 Seeley G. Mudd Bio Science Wing
Cornell University, Ithaca, NY 14853
mrwarden [at] cornell.edu
office: 607.254.4368

Education

1999-2006 Ph.D. in Systems Neuroscience, Massachusetts Institute of Technology
1992-1996 A.B. in Molecular Biology, Princeton University

Academic Appointments

Dec 2013- *Assistant Professor and Miriam M. Salpeter Fellow*, Neurobiology and Behavior, Cornell.
2007-2013 *Postdoctoral Scholar*, Bioengineering/Psychiatry lab of Prof. Karl Deisseroth, Stanford.
1999-2006 *Graduate Student*, Picower Institute for Learning and Memory lab of Prof. Earl K. Miller, Massachusetts Institute of Technology.
1997-1999 *Research Technician*, Neurobiology lab of Prof. William T. Newsome, Stanford.
1995-1996 *Undergraduate*, Applied Physics/Molecular Biology lab of Prof. Steven M. Block, Princeton.

Advanced Coursework

2003 Methods in Computational Neuroscience. Marine Biological Laboratory, Woods Hole, MA.

Awards and Honors

2015-2020 NIH Director's New Innovator Award (DP2 2MH109982)
2015-2017 Alfred P. Sloan Research Fellowship
2015-2016 Whitehall Foundation Research Grant
2014-2018 Robertson Neuroscience Investigator – New York Stem Cell Foundation
2013 American College of Neuropsychopharmacology Travel Award
2013 Miriam M. Salpeter Fellow, Cornell University
2013-2015 NARSAD Young Investigator Award, Brain & Behavior Research Foundation
2012 Best Postdoctoral Research Award, Stanford University
2012 Finalist, Sammy Kuo Prize in Neuroscience, Stanford University
2011 Society for Neuroscience Abstract selected for Neuroscience 2011 News Conference
2011 AAAS/Science Program for Excellence in Science Award
2003 Scholarship Award for Methods in Computational Neuroscience, Woods Hole
1999-2002 National Institutes of Health Predoctoral Training Fellowship (T32 GM007484)
1999 Sigma Xi Research Honor Society nomination

Ongoing External Funding

2022-2027 NIH R01 DA055075 (NIDA)
2021-2026 NIH R01 MH127510 (NIMH)
2018-2023 NIH R01 MH083809 (NIMH, MPI with Smith)

Completed External Funding

2017-2020 NIH R21 EY028391 (NEI, Co-I with Nishimura)
2015-2020 NIH DP2 MH109982 NIH Director's New Innovator Award
2014-2018 Robertson Neuroscience Investigator, New York Stem Cell Foundation
2015-2017 Alfred P. Sloan Research Fellowship
2015-2016 Whitehall Foundation Research Grant
2013-2015 NARSAD Young Investigator Award

Publications

1. Gu W, Luozhong S, Londhe K, Elkasri N, Cai S, Hawkins R, Yuan Z, Su-Greene K, Cruz M, Chang YW, McMullen P, Wu C, Seo S, Guru A, Gao W, Sarmiento T, Schaffer C, Nishimura N, Cerione R, **Warden MR**, Langer R, Jiang S. Engineered retrovirus-like Arc extracellular vesicles for the in vivo targeted delivery of mRNA into the brain. [bioRxiv](#). 2022.12.07.518870.
2. Post RJ*, Bulkin DA*, Ebitz RB, Lee V, Han K, **Warden MR**. Tonic activity in lateral habenula neurons acts as a neutral valence brake on reward-seeking behavior. [Curr Biol](#). 2022 Oct 24;32(20):4325-4336.e5.
* **equal contribution**
3. Lundqvist M, Rose J, Brincat SL, **Warden MR**, Buschman T, Herman P, Miller EK. Reduced variability of bursting activity during working memory. [Sci Rep](#). 2022 Sep 5;12(1):15050.
4. Miller CH, Reichard TM, Yang J, Carlson-Clarke B, Vogt CC, **Warden MR**, Sheehan MJ. Reproductive state switches the valence of male urinary pheromones in female mice. [bioRxiv](#). 2022.08.22.504866.
5. Miller CH, Hillock MF, Yang J, Carlson-Clarke B, Haxhillari K, Lee AY, **Warden MR**, Sheehan MJ. Dynamic changes to signal allocation rules in response to variable social environments in house mice. [bioRxiv](#). 2022.01.28.478242.
6. Lundqvist M, Rose J, **Warden MR**, Buschman TJ, Miller EK, Herman P. A Hot-Coal theory of Working Memory. [bioRxiv](#). 2020.12.30.424833.
7. Guru A, Seo C, Post RJ, Kullakanda DS, Schaffer JA, **Warden MR**. Ramping activity in midbrain dopamine neurons signifies the use of a cognitive map. [bioRxiv](#). 2020.05.21.108886.
8. Wang T, Wu C, Ouzounov DG, Gu W, Xia F, Kim M, Yang X, **Warden MR**, Xu, C. Quantitative analysis of 1300-nm three-photon calcium imaging in the mouse brain. [Elife](#). 2020 Jan 30;9:e53205.
9. Seo C*, Guru A*, Jin M, Ito B, Sleezer BJ, Ho YY, Wang E, Boada C, Krupa NA, Kullakanda DS, Shen CX, **Warden MR**. Intense threat switches dorsal raphe serotonin neurons to a paradoxical operational mode. [Science](#). 2019 Feb 1;363(6426):538-542.
* **equal contribution**
10. Post RJ, **Warden MR**. Melancholy, anhedonia, apathy: the search for separable behaviors and neural circuits in depression. [Curr Opin Neurobiol](#). 2018 Apr;49:192-200.
11. Wang M, Wang T, Wu C, Li B, Ouzounov DG, Sinefeld D, Guru A, Nam HS, Capecchi MR, **Warden MR**, Xu C. In vivo three-photon imaging of deep cerebellum. In [Multiphoton Microscopy in the Biomedical Sciences XVIII 2018 Feb 23 \(Vol. 10498\)](#). International Society for Optics and Photonics.
12. Lundqvist M, Herman P, **Warden MR**, Brincat SL, Miller EK. Gamma and beta bursts during working memory readout suggest roles in its volitional control. [Nat. Commun](#). 2018 Jan 26;9(1):394. [bioRxiv](#) 2017 122598.
13. Lindsay GW, Rigotti M, **Warden MR**, Miller EK, Fusi S. Hebbian Learning in a Random Network Captures Selectivity Properties of the Prefrontal Cortex. [J Neurosci](#). 2017 Nov 8;37(45):11021-11036.
14. Ferenczi EA, Zalocusky KA, Liston C, Grosenick L, **Warden MR**, Amatya D, Katovich K, Mehta H, Patenaude B, Ramakrishnan C, Kalanithi P, Etkin A, Knutson B, Glover GH, Deisseroth K. Prefrontal cortical regulation of brainwide circuit dynamics and reward-related behavior. [Science](#). 2016 Jan 1;351(6268):aac9698.
15. Sidor MM, Spencer SM, Dzirasa K, Parekh PK, Tye KM, **Warden MR**, Arey RN, Enwright JF 3rd, Jacobsen JP, Kumar S, Remillard EM, Caron MG, Deisseroth K, McClung, CA. Daytime spikes in dopaminergic

activity drive rapid mood-cycling in mice. Mol Psychiatry. 2015 Nov;20(11):1406-19.

16. Guru A, Post RJ, Ho YY, **Warden MR**. Making sense of optogenetics. Int J Neuropsychoph. 2015 Jul 25:1-8.
17. Sidor MM, **Warden MR**. Optogenetics. In: Encyclopedia of Psychopharmacology, 2nd edition, Price LH and Stolerman IP (ed). New York, NY: Springer, 2015.
18. Sidor MM, Davidson TJ, Tye KM, **Warden MR**, Deisseroth K, McClung CA. In vivo optogenetic stimulation of the rodent central nervous system. J Vis Exp. 2015 Jan 15;95:e51483.
19. **Warden MR**, Cardin JA, Deisseroth K. Optical Neural Interfaces. Annu Rev Biomed Eng. 2014 Jul 11;16:103-129.
20. Lammel S, Tye KM, **Warden MR**. Progress in understanding mood disorders: optogenetic dissection of neural circuits. Genes Brain Behav. 2014 Jan;13(1):38-51.
21. Rigotti M, Barak O, **Warden MR**, Wang XJ, Daw N, Miller EK, Fusi S. The importance of mixed selectivity in complex cognitive tasks. Nature. 2013 May 30;497(7451):585-590.
22. Kim SY, Adhikari A, Lee SY, Marshel JH, Kim CK, Mallory CS, Lo M, Pak S, Mattis J, Lim BK, Malenka RC, **Warden MR**, Neve R, Tye KM, Deisseroth K. Diverging neural pathways assemble a behavioral state from separable features in anxiety. Nature. 2013 Apr 11;496(7444):219-223.
23. Tye KM*, Mirzabekov JJ*, **Warden MR***, Ferenczi EA, Tsai HC, Finkelstein J, Kim SY, Adhikari A, Thompson KR, Andalman AS, Gunaydin LA, Witten IB, Deisseroth K. Dopamine neurons modulate neural encoding and expression of depression-related behaviour. Nature. 2013 Jan 24;493(7433):537-541.
*** equal contribution**
24. **Warden MR**, Selimbeyoglu A, Mirzabekov JJ, Lo M, Thompson KR, Kim SY, Adhikari A, Tye KM, Frank LM, Deisseroth K. A prefrontal cortex-brainstem neuronal projection that controls response to behavioural challenge. Nature. 2012 Dec 20;492(7429):428-432.
25. Anikeeva P*, Andalman AS*, Witten I, **Warden M**, Goshen I, Grosenick L, Gunaydin LA, Frank LM, Deisseroth K. Optetrode: a multichannel readout for optogenetic control in freely moving mice. Nat Neurosci. 2012 Jan;15(1):163-70. *** equal contribution**
26. **Warden MR**, Miller EK. Task-dependent changes in short-term memory in the prefrontal cortex. J Neurosci. 2010 Nov 24;30(47):15801-10.
27. Siegel M, **Warden MR**, Miller EK. Phase-dependent neuronal coding of objects in short-term memory. Proc Natl Acad Sci U S A. 2009 Dec 15;106(50):21341-6.
28. **Warden MR**, Miller EK. The representation of multiple objects in prefrontal neuronal delay activity. Cereb Cortex. 2007 Sep;17 Suppl 1:i41-50.

Intellectual Property

1. Deisseroth K, Tye KM, Warden MR (2015) "Non-human animal models of depression and methods of use thereof". **U.S. Patent** 2015/0040249.

Invited Talks

- 2023 IRBO World Congress of Neuroscience Symposium. Grenada, Spain.
Systems Neuroscience Seminar Series, National Institutes of Health. Bethesda, MD.
Department of Anatomy and Neurobiology, Boston University. Boston, MA.
- 2022 Society for Neuroscience NeuroWire Virtual Club Seminar.

- F.M. Kirby Neurobiology Center, Harvard Medical School. Boston, MA.
 Neuroscience Program Seminar Series, Brown University. Providence, RI.
 INSPIRE Postdoctoral Training Seminar, University of Iowa. Iowa City, IA.
 State-Dependence of Sensation and Behavior, Janelia Research Campus. Ashburn, VA.
- 2021 Virtual Dopamine Conference (ViDA)
 High Risk, High Reward Symposium, National Institutes of Health. Bethesda, MD.
 Neurobiological and Psychological Information Processing Seminar Series, Max Planck Institute for Biological Cybernetics. Tübingen, Germany.
 Neuroscience Seminar Series, University of Colorado. Boulder, CO.
 Institute of Neuroscience, University of Oregon. Eugene, OR.
- 2020 Joint Seminars in Neuroscience, UCLA. Los Angeles, CA.
 FENS Symposium, 'Conserved Functions of Serotonergic Circuits in Diverse Animals'. Glasgow, UK.
 Neuroscience Program Seminar Series, University of Ottawa. Ottawa, ON. (Cancelled-COVID19)
 Department of Cellular and Molecular Physiology, Yale University. New Haven, CT. (Cancelled-COVID19)
 Department of Physiology, Northwestern University. Chicago, IL.
 Department of Neuroscience, University of Pennsylvania. Philadelphia, PA.
- 2019 Brain and Mind Research Institute, Weill Cornell Medicine. New York, NY
 Department of Biological Sciences, SUNY Albany. Albany, NY.
 Keynote Speaker, Junior Scientist Workshop on Mechanistic Cognitive Neuroscience, Janelia Research Campus. Ashburn, VA.
 Department of Neuroscience, Johns Hopkins. Baltimore, MD.
 Poitras Center & Stanley Center Translational Neuroscience Joint Seminar Series, McGovern Institute and Broad Institute of Harvard and MIT. Cambridge, MA.
 Department of Physiology, New York Medical College. Valhalla, NY.
 'Predictive Processing in the Brain', Sainsbury Wellcome Center for Neural Circuits and Behaviour. London, UK.
- 2018 Society for Neuroscience Minisymposium, 'Neuromodulation of Brain States'. San Diego, CA.
 Genetic Manipulation of Neuronal Activity, Janelia Research Campus. Ashburn, VA.
 Center for Neural Science, New York University. New York, NY.
 Neuronex Technology Conference, Cornell University. Ithaca, NY.
 New York Stem Cell Foundation Innovators Retreat. Montauk, NY.
 The Brain Conferences, 'The Computational Neuroscience of Prediction'. Rungsted, Denmark.
- 2017 Seminars in Neuroscience, Universidade Federal do Rio Grande do Sul. Porto Alegre, Brazil.
 Department of Neuroscience, University of Pittsburgh. Pittsburgh, PA.
 New York Stem Cell Foundation Innovators Retreat. Montauk, NY.
 Department of Neuroscience, University of Rochester. Rochester, NY.
- 2016 Mong Family Foundation Symposium, Cornell Neurotech. Ithaca, NY.
 Laboratory of Atomic and Solid State Physics, Cornell University. Ithaca, NY.
 Cornell Neurotech Advisory Board. Ithaca, NY.
 Gordon Conference on Optogenetics, Neural Circuits, and Behavior. Newry, ME.
 Department of Brain and Cognitive Sciences, Seoul National University. Seoul, Korea.
 Y-IBS Workshop on Physical Tools to Control Biological Systems. Seoul, Korea.
 Workshop on Unsolved Problems in Systems Neuroscience, Janelia Research Campus. Ashburn, VA.
 New York Stem Cell Foundation Innovators Retreat. Montauk, NY.
- 2015 International Workshop on Technologies for Optogenetics. Lecce, Italy.
 Panel talk, 3rd Annual Molecular Psychiatry Meeting. San Francisco, CA.
 New York Stem Cell Foundation Innovators Retreat. Montauk, NY.
 Fifth International Symposium on "Biology of Decision Making". Paris, France.
- 2014 International Workshop on Technologies for Optogenetics. Lecce, Italy.
 Department of Biomedical Engineering, Cornell University. Ithaca, NY.
 Symposium, 167th Annual Meeting, American Psychiatric Association. New York, NY.
 New York Stem Cell Foundation Innovators Retreat. Montauk, NY.
 Baker Institute for Animal Health, Cornell University. Ithaca, NY.
 Mood disorders symposium, University of Alabama. Birmingham, AL.
 Department of Psychological and Brain Sciences, UCSB. Santa Barbara, CA.

- Department of Psychology, Cornell University. Ithaca, NY.
- 2013 Panel talk, 52nd Annual Meeting, American College of Neuropsychopharmacology. Hollywood, FL.
Symposium, 68th Annual Scientific Convention, Society of Biological Psychiatry. San Francisco, CA.
Optogenetics 2013: Neuronal Function to Mapping & Disease Therapeutics. Waltham, MA.
Langley-Porter Neuroscience Seminar, UCSF. San Francisco, CA.
- 2012 2nd Annual Research Symposium, Stanford University Postdoctoral Association
Neuroscience Institute, New York University Langone Medical Center. New York, NY.
Department of Biomedical Engineering, Johns Hopkins University. Baltimore, MD.
Center for Neural Science, New York University. New York, NY.
Department of Neurobiology and Behavior, Cornell University. Ithaca, NY.
Department of Psychology, University of Arizona. Tucson, AZ.
Panel talk, Winter Conference on Brain Research. Snowbird, UT.
Department of Psychiatry, University of Pittsburgh. Pittsburgh, PA.
- 2011 Panel talk, American College of Neuropsychopharmacology. Waikoloa Beach, HI.
Panel talk, Association for Research in Nervous and Mental Disease. New York, NY.
Press Conference at Neuroscience 2011. Washington, DC.
Anxiety and Depression: 21st Neuropharmacology Conference. Falls Church, VA.

Professional Service and Activity

- 2022-2023 Program Committee, Cosyne. Montreal, CA.
- 2022-2026 Permanent Member, NIH Study Section: Learning, Memory, and Decision Neuroscience
- 2021 Ad Hoc Member, NIH Study Section: Learning, Memory, and Decision Neuroscience
- 2021-present Member, Federation of European Neuroscience Societies
- 2021-present Member, European Brain and Behaviour Society
- 2021 Ad Hoc Member, NIH Study Section: BRAIN Initiative Advanced Postdoctoral Career Transition Awards to Promote Diversity (K99/R00)
- 2020-2021 Planning Committee, Allen Institute for Neural Dynamics. Seattle, WA.
- 2018 Ad Hoc Member, NSF CAREER Panel, Neural Systems Cluster. Alexandria, VA.
- 2018 Ad Hoc Member, NIH Study Section: Biobehavioral Regulation, Learning and Ethology
- 2016-2018 Program Committee, Cosyne. Salt Lake City, UT.
- 2016 Mail Reviewer, NIH Study Section: Neuroscience and Ophthalmic Imaging Technologies
- 2015-2016 Research Topic Editor, Frontiers in Systems Neuroscience
- 2015-present Scientific Board, International Workshop on Technologies for Optogenetics. Lecce, IT.
- 2015 Grant Reviewer, Israel Science Foundation
- 2015-present Member, Molecular Psychiatry Association
- 2014-2015 Abstract Reviewer, Cosyne. Salt Lake City, UT.
- 2011-present Member, American Association for the Advancement of Science
- 1999-present Member, Society for Neuroscience

University and Departmental Service

- 2022 Lab sponsor, Leadership Program for Veterinary Scholars
- 2022 College of Agriculture and Life Sciences 'Roadmap to 2050' Committee
- 2021-present Neurobiology and Behavior Diversity and Inclusion Weekend, Tiers 1 & 2
- 2016 Primate Research Advisory Committee (invited discussant)
- 2015-2016 Faculty Search Committee, Neurobiology and Behavior, Cornell University
- 2015-present Neurotech Advisory Board, Cornell University
- 2014-2015 Faculty Search Committee, Neurobiology and Behavior, Cornell University
- 2014-2015 Faculty Advisor, Women's Club Soccer
- 2014-present Controlled Substances Officer (alternate), Neurobiology and Behavior, Cornell University
- 2013-present Graduate Admissions Committee, Neurobiology and Behavior, Cornell University

Reviewer Nature; Cell; Neuron; Nature Neuroscience; PNAS; Nature Medicine; Nature Communications; eLife; Journal of Neuroscience; Journal of Neural Engineering; Biological Psychiatry; Neuropsychopharmacology; Journal of Neurophysiology; Frontiers; Behavioural Brain Research, Scientific Reports

Teaching

2023	Introduction to Neuroscience (BioNB 2220, 6 lectures), Cornell
2023	Neural Circuits of Motivated Behavior (BioNB 4370), Cornell
2022	Introduction to Neuroscience (BioNB 2220, 6 lectures), Cornell
2021	Neural Circuits of Motivated Behavior (BioNB 4370), Cornell
2021	Introduction to Neuroscience (BioNB 2220, 5 lectures), Cornell
2021	Introductory Graduate Survey in Neurobiology and Behavior (BioNB 7210, 1 lecture), Cornell
2020	Neuromodulation, brain states, and behavior (BioNB 4200), Cornell
2020	Introduction to Neuroscience (BioNB 2220) (5 lectures), Cornell
2020	Introductory Graduate Survey in Neurobiology and Behavior (BioNB 7210, 1 lecture), Cornell
2019	Neural Circuits of Motivated Behavior (BioNB 4370), Cornell
2019	Introduction to Neuroscience (BioNB 2220) (6 lectures), Cornell
2019	Introductory Graduate Survey in Neurobiology and Behavior (BioNB 7210, 1 lecture), Cornell
2018	Introduction to Neuroscience (BioNB 2220) (7 lectures), Cornell
2018	Introductory Graduate Survey in Neurobiology and Behavior (BioNB 7210, 1 lecture), Cornell
2017	Neural Circuits of Motivated Behavior (BioNB 4370), Cornell
2017	Introduction to Neuroscience (BioNB 2220) (6 lectures), Cornell
2016	Neurotechnologies and Neural Circuits (BioNB 4200), Cornell
2016	Introduction to Neuroscience (BioNB 2220) (5 lectures), Cornell
2015	Introduction to Neuroscience (BioNB 2220) (2 lectures), Cornell
2015	Neural Circuits of Motivated Behavior (BioNB 4370), Cornell
2011	<i>Instructor</i> , Optogenetics Innovation Laboratory, Stanford
2010	<i>Instructor</i> , Optogenetics Innovation Laboratory, Stanford
2006	<i>Teaching assistant</i> . Statistics for Neuroscience Research (9.073J, HST.460J), MIT
2003	<i>Teaching assistant</i> . Discrete Stochastic Processes (6.262), MIT
2002	<i>Teaching assistant</i> . Neuroscience and Behavior (9.01), MIT
2002	<i>Teaching assistant</i> . Systems Neuroscience Laboratory (9.02), MIT
2000	<i>Teaching assistant</i> . Introduction to Psychology (9.00), MIT

Mentoring (graduate students, postdoctoral fellows, and research associates)

2023-	Diala Noofoory, <i>rotation student</i> , Neurobiology and Behavior, Cornell
2023-	Ivan Kondratyev, <i>rotation student</i> , Neurobiology and Behavior, Cornell
2022-	Kristine Kolkman, <i>research associate</i> , Neurobiology and Behavior, Cornell
2022-	Joshua Wilson, <i>rotation student</i> , Neurobiology and Behavior, Cornell
2022-	Lizemarie Cirone, <i>rotation student</i> , Neurobiology and Behavior, Cornell
2022-	Chelsea Strawder, <i>graduate student</i> , Neurobiology and Behavior, Cornell
2021-	Cole Roland, <i>graduate student</i> , Neurobiology and Behavior, Cornell
2017-	Caleb Vogt, <i>co-advised graduate student</i> (primary mentor: Mike Sheehan), Neurobiology and Behavior, Cornell
2018-2022	Eileen Troconis, <i>graduate student</i> , DVM/PhD Program, Cornell
2017-2022	Caitlin Miller, <i>co-advised graduate student</i> (primary mentor: Mike Sheehan), Neurobiology and Behavior, Cornell
2017-2020	Brianna Sleezer, <i>postdoctoral fellow</i> , Neurobiology and Behavior, Cornell
2016-2020	Wenchao Gu, <i>postdoctoral fellow</i> , Neurobiology and Behavior, Cornell
2016-2019	Yuval Baumel, <i>postdoctoral fellow</i> , Neurobiology and Behavior, Cornell
2015-2019	David Bulkin, <i>postdoctoral fellow</i> , Neurobiology and Behavior, Cornell
2015-2021	Akash Guru, <i>graduate student</i> , Neurobiology and Behavior, Cornell
2015-2021	Yi-Yun Ho, <i>graduate student</i> , Neurobiology and Behavior, Cornell
2014-2020	Ryan Post, <i>graduate student</i> , Neurobiology and Behavior, Cornell
2014-2020	Changwoo Seo, <i>graduate student</i> , Neurobiology and Behavior, Cornell

Cornell Thesis Committees

2022-	Lindsay Karaba, <i>graduate student</i> , Fernandez-Ruiz/Oliva Lab, Neurobiology and Behavior
2022-	Jason Gao, <i>graduate student</i> , Goldberg Lab, Neurobiology and Behavior
2019-	Nicole Bilotta, <i>graduate student</i> , Schaffer/Nishimura Lab, Biomedical Engineering
2018-	Yuta Mabuchi, <i>graduate student</i> , Yapici Lab, Neurobiology and Behavior

2018-2022 Aaron Mok, *graduate student*, Xu Lab, Biomedical Engineering
 2018- Brendan Ito, *graduate student*, Goldberg Lab, Neurobiology and Behavior
 2017- Andrea Roeser, *graduate student*, Goldberg Lab, Neurobiology and Behavior
 2017-2021 Meiqi Wu, *graduate student*, Adie Lab, Biomedical Engineering
 2017-2021 Chunyan Wu, *graduate student*, Xu Lab, Biological and Biomedical Sciences
 2017-2019 Saumya Sahai, *graduate student*, Yapici Lab, Neurobiology and Behavior
 2015-2021 Fei Xia, *graduate student*, Xu Lab, Applied and Engineering Physics
 2015-2020 Yu-Ting Cheng, *graduate student*, Schaffer/Nishimura Lab, Neurobiology and Behavior
 2015-2019 Vaida Rimeikyte, *graduate student*, Anderson Lab, Human Development
 2015-2020 Ruidong Chen, *graduate student*, Goldberg Lab, Neurobiology and Behavior
 2015-2020 Tejapratap Bollu, *graduate student*, Goldberg Lab, Neurobiology and Behavior

External Thesis Committees

2022 Grace Paquelet, *graduate student*, Hen Lab, Neurobiology and Behavior, Columbia University
 2021 Dario Sarra, *graduate student*, Mainen Lab, Champalimaud Centre for the Unknown
 2017 Sweyta Lohani, *graduate student*, Moghaddam Lab, Center for Neuroscience, University of Pittsburgh

Mentoring (visiting research students)

2022 Isabelle Towell, Leadership Program for Veterinary Scholars, Cornell

Mentoring (undergraduates)

2021- Raf Chocie, *undergraduate student*, Human Health, Biology, and Society, Cornell
 2019-2020 Alison Sin, *undergraduate student*, Neurobiology and Behavior, Cornell
 2019-2021 Brandon Carlson-Clarke, *undergraduate student*, Neurobiology and Behavior, Cornell
 2017-2020 Brittney Moncrieffe, *undergraduate student*, Neurobiology and Behavior, Cornell
 2017-2018 Cynthia Shen, *undergraduate student*, Neurobiology and Behavior, Cornell
 2016-2019 Durga Kullakanda, *undergraduate student*, Neurobiology and Behavior, Cornell
 2016-2018 Julia Schaffer, *undergraduate student*, Chemistry, Cornell
 2016-2017 Nicholas Krupa, *undergraduate student*, Neurobiology and Behavior, Cornell
 2016-2018 *Mackenzie Lemieux, *undergraduate student*, Neurobiology and Behavior, Cornell
 ***Mika Salpeter Award for undergraduate research in Neurobiology**
 2016-2018 Kyle Pellegrino, *undergraduate student*, Neurobiology and Behavior, Cornell
 2016-2018 Qiuwei Yang, *undergraduate student*, Neurobiology and Behavior, Cornell
 2016-2018 Vladlena Lee, *undergraduate student*, Neurobiology and Behavior, Cornell
 2015-2018 *Kasey Han, *undergraduate student*, Neurobiology and Behavior, Cornell
 ***Robert Capranica Award for undergraduate research in Neuroethology**
 2015-2017 *Michelle Jin, *undergraduate student*, Neurobiology and Behavior, Cornell
 ***Mika Salpeter Award for undergraduate research in Neurobiology**
 2015-2017 Priyanka Boddu, *undergraduate student*, Computer Science, Cornell
 2015-2016 Emika Lisberger, *undergraduate student*, Physics, Cornell
 2015-2016 Nicholas Ringelberg, *undergraduate student*, Neurobiology and Behavior, Cornell
 2014-2016 Eli Wang, *undergraduate student*, Electrical & Computer Engineering, Cornell
 2014-2016 Jungsoo Kim, *undergraduate student*, Biological Engineering, Cornell
 2014-2015 Christina Boada, *undergraduate student*, Neurobiology and Behavior, Cornell