JAMES (JIMMY) DOOLEY

Department of Biological Sciences • Purdue University

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EDUCATION

University of California, Davis **09/2015**

Ph.D. Neuroscience Advisor: Dr. Leah Krubitzer

Dissertation: *Anatomical connections of parietal cortex and visual acuity in Monodelphis domestica: Insights into the brain organization of the mammalian ancestor*.

Committee: Gregg Recanzone, Karen Bales, Kenneth Britten, Leah Krubitzer, Brian Trainor

University of Chicago **06/2009**

B.A. Biology and Psychology Honors advisor: Dr. Brian Prendergast

CURRENT POSITION

Assistant Professor, Purdue University **10/2022 – present**

Department of Biological Sciences

PAST POSITIONS AND TRAINING

Postdoctoral Fellow, University of Iowa, Dr. Mark Blumberg	**2016 – 2022**
Graduate Student/PhD Candidate, UC Davis, Dr. Leah Krubitzer	**2010 – 2015**
Rotation Student, UC Davis, Drs. Barbara Chapman and Brian Trainor	**2009 – 2010**
Research Assistant, University of Chicago, Dr. Brian Prendergast	**2007 – 2009**

SPECIALTY RESEARCH TRAINING

Gordon Research Conference, Thalamocortical Interactions	**2020, 2022**
Cold Spring Harbor Neural Data Science	**July 2017**
Gordon Research Conference, Sleep Regulation and Function	**2016, 2018, 2024**
Barcelona Cognition, Brain, and Technology Summer School	**September 2014**

CURRENT AND PREVIOUS GRANT SUPPORT

Grants as a Principal Investigator

Simons Foundation Autism Rat Models Consortium 10/1/25 to 9/30/27 $399,151
Changes in sleep and sensorimotor development in Fmr1 knock-out rats

Showalter Early Investigator Award 7/1/24 to 7/31/25 $75,000
Effect of serotonin on sensory feedback during sleep and wake across infancy

Sleep Research Society Foundation 1/1/22 to 6/30/24 $50,000
Career Development Award
Theta rhythms during REM sleep promote the developmental integration of primary motor cortex into the sensorimotor network

Grants and Fellowships as a Trainee

Ruth L. Kirschstein National Research 4/1/17 to 3/31/20 $182,846
Service Award (NRSA) – F32 NS101858
Mechanisms for processing expected sensory feedback in early development

Vision Training Grant – T32 EY015387 2012 and 2015 $87,731

Achievement Reward for College Scientists 9/1/13 to 6/30/14 $10,000
Effects of early bilateral enucleation on neocortical development

PENDING GRANT SUPPORT

NINDS – R21, Submitted 3/15/26 — 4/1/26 to 3/31/28 — Total: $435,692
Multi-PI grant (with Alexandre Tiriac, Vanderbilt University) — Purdue Portion: $203,130
Development of Proprioceptive Maps in the External Cuneate Nucleus
15th percentile, advisory council March 2026

NINDS – R01 Submitted 3/5/26 — 12/1/26 to 11/30/31 — $2,339,655
Sleep-Dependent Interneuron Activity in Brainstem Circuits Drives Development

SELECTED ACADEMIC AWARDS AND SPECIAL RECOGNITION

Sleep Research Society Rising Star Award - Investigator Educator	***2026***
College of Science Undergraduate Advising Award (*Purdue University*)	***2024***
Sleep Research Society Outstanding Early Investigator Award	***2022***
Postdoctoral Research Fellow Excellence Award (*University of Iowa*)	***2020***
Gordon Research Symposium Committee's Award	***2018***
Ling-Lie Chau Graduate Student Award for Brain Research	***2015***

RESEARCH

PEER-REVIEWED PUBLICATIONS

Links to all publications can be found on my Google Scholar profile and lab website
*These authors contributed equally to this work.
Underlined names are my trainees: [1]Graduate Student, [2]Postdoc, [3]Technician, [4]Undergraduate
[§]Corresponding Author

In preparation

Sattler NJ[2], Grobengieser AK[4], and **Dooley JC**. (*In prep*). Stereotaxic coordinates of primary cortical areas of Long-Evans and Sprague Dawley rats through weaning.

Published

1. Kobrossi JP[3] **and Dooley JC[§].** (*In press*). The developmental emergence of tonic and phasic REM sleep in rats. ***The Journal of Neuroscience.***
2. Reid MR[1]*****, Sattler NJ[2]*****, and **Dooley JC[§]**. (*In press*). Motor cortex activity during sleep and wake movements sharpens across development but continues to lag the red nucleus. ***Scientific Reports*.**
3. Blumberg MS, Myroth AG, Horton J, Pal S, Sokoloff G, **Dooley JC[§]**. (*In press*). REM-sleep twitches and the maintenance of specialized sensorimotor systems across the lifespan. ***Current Biology*.**
4. **Dooley JC[§]** and Sattler NJ[2]. (2025). Building the dream: uncovering the development of REM sleep's features. ***SLEEP***. 48:zsaf060. PMC12163117
   Invited commentary, peer-reviewed.
5. **Dooley JC[§]*** and van der Heijden, ME*. (2024). More than a small brain: the importance of studying neural function during development. ***Journal of Neuroscience.*** 44:e1367242024. PMC11604142

6. Gómez LJ, **Dooley JC**, and Blumberg, MS. (2023). Activity in developing prefrontal cortex is shaped by sleep and sensory experience. ***eLife***. 12:e82103. PMC9901933

7. Blumberg MS*, **Dooley JC§***, and Tiriac, A*. (2022). Sleep, plasticity, and sensory neurodevelopment. ***Neuron***. 110: 3230-3242. PMC9588561

8. **Dooley JC§**, Sokoloff G, and Blumberg, MS. (2021). Movements during sleep reveal the developmental emergence of a cerebellar-dependent internal model in motor thalamus. ***Current Biology***. 31: 5501-5511. PMC8692445
   - [Commentary by van der Heijden ME, Brown AM, and Sillitoe RV. "Motor control: Internalizing your place in the world" in *Current Biology*. 31: R1576-1578].

9. Glanz RM, **Dooley JC,** Sokoloff G, and Blumberg MS (2021). Sensory coding of limb kinematics in motor cortex across a key developmental transition. ***Journal of Neuroscience***. 41: 6905-6918. PMC8360693

10. Sokoloff G, **Dooley JC**, Glanz RM, Yen RY, Hickerson MM, Evans LG, Laughlin HM, Apfelbaum KS, and Blumberg MS. (2021). Twitches emerge postnatally during quiet sleep in human infants and are synchronized with sleep spindles. ***Current Biology***. 31: 3426-3432. PMC8355086
    - [Commentary by Tarokh L. "Sleep: Twitch in tempo" in *Current Biology*. 31: R953-R954].

11. Gómez LJ, **Dooley JC**, Sokoloff G, and Blumberg MS. (2021). Parallel and serial sensory processing in developing primary somatosensory and motor cortex. ***Journal of Neuroscience***. 41: 3418-3431. PMC8051688

12. **Dooley JC§***, Glanz RM*, Sokoloff G, and Blumberg MS. (2020). Self-generated whisker movements drive state-dependent sensory input to developing barrel cortex. ***Current Biology***. 30: 2404–2410. PMC7314650

13. Blumberg MS, **Dooley JC**, and Sokoloff G. (2020). The developing brain revealed during sleep. ***Current Opinion in Physiology***. 15: 14–22. PMC7450535

14. **Dooley JC§**, Sokoloff G, and Blumberg MS. (2019). Behavioral states modulate sensory processing in early development. ***Current Sleep Medicine Reports***. 5: 112–117. PMC6818957

15. **Dooley JC**, Krubitzer LA. (2019). Alterations in cortical and thalamic connections of somatosensory cortex following early loss of vision. ***Journal of Comparative Neurology***. 527: 1675–1688. PMC6465163

16. **Dooley JC§**, Blumberg MS. (2018). Developmental "awakening" of primary motor cortex to the sensory consequences of movement. ***eLife***. 7:e41841. PMC6320070

17. Blumberg MS, **Dooley JC.** (2017). Phantom Limbs, Neuroprosthetics, and the Developmental Origins of Embodiment. ***Trends in Neurosciences***. 40:603–612. PMC5623093

18. **Dooley JC**, Donaldson MS, and Krubitzer LA. (2017). Cortical plasticity following stripe rearing in the marsupial *Monodelphis domestica*: neural response properties of V1. ***Journal of Neurophysiology***. 117:566–581. PMC5288476

19. **Dooley JC**, Franca JG, Seelke, AMH, Cooke DF, and Krubitzer LA. (2015). Evolution of mammalian sensorimotor cortex: Thalamic projections to parietal cortical areas in *Monodelphis domestica*. ***Frontiers in Neuroanatomy***. 8: 163. PMC4286717

20. Seelke AMH, **Dooley JC**, and Krubitzer LA. (2014). Photic preferences of the short-tailed opossum (*Monodelphis domestica*). ***Neuroscience***. 269: 273–280. PMC4020983

21. Seelke AMH, **Dooley JC**, and Krubitzer L. (2014). The cellular composition of the marsupial neocortex. ***Journal of Comparative Neurology***. 522: 2286–2298. PMC4090354

22. Krubitzer L and **Dooley JC.** (2013). Cortical plasticity within and across lifetimes: How can development inform us about phenotypic transformation? ***Frontiers in Human Neuroscience***. 7:620. PMC3793242
23. **Dooley JC**, Franca JG, Seelke AMH, Cooke DF, Krubitzer LA. (2013). A connection to the past: *Monodelphis domestica* provides insight into the organization and connectivity of the brains of early mammals. ***Journal of Comparative Neurology*.** 521: 3877–3897. PMC3959876
24. Laredo SA, Landeros RV, **Dooley JC**, Steinman MQ, Orr V, Silva AL, Crean KK, Robles CF, and Trainor BC. (2013). Nongenomic effects of estradiol on aggression under short day photoperiods. ***Hormones and Behavior*.** 64: 557–565. PMC3851015
25. Seelke AMH, **Dooley JC**, and Krubitzer LA. (2013). Differential changes in the cellular composition of the developing marsupial brain. ***Journal of Comparative Neurology***. 521: 2602–2620. PMC3934569
26. **Dooley JC**, Nguyen HM, Seelke AMH, and Krubitzer L. (2012). Visual acuity in the short-tailed opossum (*Monodelphis domestica*). ***Neuroscience***. 223: 124–130. PMC3708803
27. **Dooley JC**[§] and Prendergast BJ. (2012). Photorefractoriness and energy availability interact to permit facultative timing of spring breeding. ***Behavioral Ecology***. 23: 1049–1058. PMC3431115
28. Seelke AMH, **Dooley JC**, and Krubitzer LA. (2012). The emergence of somatotopic maps of the body in S1 in rats: the correspondence between functional and anatomical representation. ***PLoS One***. 7: e32322. PMC3290658

BOOK CHAPTERS

Dooley, JC (2018) Neocortex. In: Vonk, J and Shackelford, TK (eds.) *Encyclopedia of Animal Cognition and Behavior*. Springer, Cham.

SYMPOSIA ORGANIZED

Symposium organizer, Big10 Neuroscience conference, June 6-7 2024. "Innovative Technologies in Neuroscience". Speakers included Andrew Saykin, Krishna Jayant, Savanna Snyder, Daniel Wahl, Bengi Baran, and Anke Tuckker. West Lafayette, IN.

Symposium organizer and chair, SLEEP meeting, 2023. "Advances in our understanding of neural activity during REM sleep." Speakers included Drs. Guang Yang, Yuta Senzai, Ashley Ingiosi, Mattia Aime, and James Dooley. June 5, 2023, from 1:30 to 3:30 pm. Session S-07. Indianapolis, IN.

Minisymposium organizer and co-chair (with Dr. Greta Sokoloff), Society for Neuroscience, 2022. "Influence of behavioral state on sensorimotor plasticity." Speakers included Drs. Karsten Rauss, Sofija Canavan, Andrew Jackson, Karunesh Ganguly, Lex Gómez, and Genevieve Albouy. November 12-16, 2022. San Diego, CA.

INVITED TALKS (UPCOMING)

University of Illinois, Urbana-Champagne Department of Biology. "From brainstem to cortex: REM sleep and the hand-off of motor control." Urbana-Champagne, Illinois. April 2, 2026.
Faculty host: Dr. Benjamin Auerbach

Wabash College Department of Biology. "Sleep like a baby: How REM sleep helps the brain learn to move." Crawfordsville, Indiana. April 8, 2026.

SLEEP 2026. Session title: "Animal models in sleep and circadian research, and their essential role in promoting health." As a panelist, my section's title is "Sleep benefits during early development." Baltimore, Maryland. June 16, 2026.

Panel discussion, intending to make the strongest possible case for why research in animal models is essential to promoting human health, particularly in the fields of sleep and circadian research.

Colorado Sleep and Circadian Summer School Visiting Professor. Talk title TBD; Boulder, Colorado. August 3 to Friday August 7, 2026.

INVITED TALKS (COMPLETED)

University of Wyoming Department of Zoology and Physiology. "From brainstem to cortex: REM sleep and the hand-off of motor control." Laramie, Wyoming. March 5, 2026.
Faculty host: Dr. William Todd

University of Toronto Department of Cell and Systems Biology. "Sleep like a baby: How REM sleep helps the brain learn to move." Toronto, Canada. October 30, 2025.
Faculty host: Drs. John Peever and Jimmy Fraigne

Vanderbilt Brain Institute and Department of Biological Sciences. "Sleep like a baby: How REM sleep helps the brain learn to move." Nashville, Tennessee. October 27, 2025.
Faculty host: Dr. Alexandre Tiriac

Purdue Biological Sciences 150th Anniversary Symposium. "Sleep like a baby: How REM sleep helps the brain learn to move." West Lafayette, Indiana. October 8th, 2025.

Simons ARC Annual Meeting. "Exploring Sleep-Dependent Mechanisms for Motor Development in Fmr1 Rats." New York City, New York. September 29, 2025.

Advances in Sleep and Circadian Science. "Neural activity during REM sleep promotes the development of cortical motor control." Clearwater Beach, Florida. February 15. 2025.

Sleep Regulation and Function Gordon Research Conference. "In weanling rats, neural interactions between M1 and the Red Nucleus (a brainstem motor nucleus) are exclusive to periods of REM sleep." Galveston, Texas. March 5, 2024.

University of Louisville Department of Anatomical Sciences and Neurobiology. "Sleep like a baby (rat): How movements during sleep teach the brains of infant rats how their bodies move." Louisville, Kentucky. October 19, 2023.
Faculty host: Dr. Bill Guido

SLEEP meeting. "REM-sleep promotes the development of cortically-mediated motor control." Indianapolis, Indiana. June 5, 2023.

Okinawa Institute of Science and Technology Neuroscience Online Seminars. "How movements during sleep teach infant brains how their bodies move." April 20, 2023.

Institute for Mind and Biology, University of Chicago. "Sleep like a baby: How movements during sleep teach infant brains how their bodies move." Chicago, Illinois. March 2, 2023.

Motor Behavior Seminar, Purdue University Department of Health and Kinesiology. "Sleep like a baby: How movements during sleep teach infant brains how their bodies move." West Lafayette, Indiana. February 24, 2023.

Seminar for Neurotrauma and Diseases. "How movements during sleep teach infant brains how their bodies move." West Lafayette, Indiana. February 22, 2023.

Purdue University, Department of Psychology. "Sleep like a baby: How movements during sleep teach infant brains how their bodies move." West Lafayette, Indiana. January 18, 2023.

SLEEP meeting. "Theta oscillations during REM sleep synchronize behavior and neural activity in the developing motor system." Charlotte, North Carolina. June 5, 2022.

Johns Hopkins Cerebellum Seminar Series. "Movements during sleep reveal the developmental emergence of both internal models and cortical control of movement." May 31, 2022.

Purdue University, Department of Biological Sciences. "Movements during sleep enable the development of cortical motor control." March 28, 2022.

University of Nevada, Las Vegas Department of Psychology. "Movements during sleep enable the development of cortical motor control." February 7, 2022.

University of Alabama Department of Biological Sciences. "Movements during sleep enable the development of cortical motor control." January 31, 2022.

Sleep Research Society Virtual Seminar Series. "Sleep & The Development of Motor Control in Motor Cortex." January 25, 2022.

University of Wyoming Department of Zoology and Physiology. "Twitches during REM sleep promote the development of motor control in motor cortex." January 20, 2022.

J. B. Johnston Club annual meeting. "Coordinated activity in primary motor cortex and the red nucleus first emerges during REM sleep-associated theta oscillations in preweanling rats." November 12, 2021.

Inside Scientific invited webinar. "Sensorimotor Network Development During Early Postnatal Life in the Awake and Sleeping Brain." September 2, 2021.

University of Iowa Department of Psychological and Brain Sciences Brown Bag. "Predicting the present: Twitches during active sleep reveal the developmental origins of 'now.'" February 2021.

Tucker Davis Technologies invited webinar. "Myoclonic twitches during REM sleep drive neural activity in motor thalamus and motor cortex in preweanling rats." Online Webinar. November 11, 2020.

International Society for Developmental Psychobiology. "Differences in state-dependent responses to sensory feedback in motor cortex in developing rats." Washington, DC. November 2017.

UC Davis Neuroscience Graduate Group Exit Seminar. "Evolution of the mammalian sensory motor cortex and plasticity following early enucleation." Davis, California. September 2015.

UC Davis Psychology Brown Bag. "Somatosensory connectivity and plasticity in the developing short-tailed opossum neocortex." Department of Psychology, Davis, California. January 2015.

UC Davis Psychology Data Blitz. "Evolution of mammalian sensorimotor cortex: Thalamic projections to primary somatosensory cortex in *Monodelphis domestica*." Davis, California. November 2014.

ARCS Foundation Luncheon, invited student speaker. Fairmont Hotel, San Francisco, CA. October 2014.

University of Iowa Department of Psychology Special Seminar. "Somatosensory connectivity and plasticity in the developing short-tailed opossum neocortex." Iowa City, IA. September 2014.

Barbara Chapman Scientific Research Symposium. "Multisensory plasticity in the developing short-tailed opossum neocortex following cortical insult." Buehler Alumni Center, Davis, California. April 2014.

UC Davis Psychology Data Blitz. "Multisensory plasticity in the developing short-tailed opossum neocortex following cortical insult." Davis, California. October 2013.

Princeton University Department of Psychology Special Seminar. "Multisensory plasticity in the developing short-tailed opossum neocortex." Princeton, New Jersey. October 2013.

UC Davis Center for Neuroscience Retreat. "Visual plasticity in the short-tailed opossum." Marconi Conference Center, Davis, California. September 2013.

UC Davis Neurolunch. "Plasticity following early V1 lesions in *Monodelphis domestica*." Center for Neuroscience, Davis, California. May 2012.

UC Davis Psychology Brown Bag. "Can cortical plasticity be directed following early loss of vision." Department of Psychology, Davis, California. February 2012.

UC Davis Vision Research Symposium. "The effect of early visual loss and environment on cross-modal plasticity in *Monodelphis domestica*." Davis, California. January 2012.

POSTER PRESENTATIONS

[1]Graduate student, [2]Postdoc, [3]Technician, [4]Undergraduate

Sattler NJ[2], **Dooley JC**. Temporal masking of cortical sensory activity in primary somatosensory cortex in infant rats. Society for Neuroscience, November 2025. San Diego, CA

Dooley JC. REM sleep gates motor cortex–red nucleus interactions during development. Cerebellum Gordon Confrence, July 2025. Switzerland.

Collins AY[4], **Dooley JC**. Twitchy Whiskers, Busy Brains. Purdue Spring Undergraduate Research Conference, April 2025. West Lafayette, Indiana.

Wolfer-Jenkins C[4], **Dooley JC**. A Longitudinal Analysis of Developmental Changes in Twitch Patterning during REM Sleep. Purdue Spring Undergraduate Research Conference, April 2025. West Lafayette, Indiana.

Svoboda TJ[4], **Dooley JC**. The Role of Myoclonic Twitches in REM Sleep as a Method of Sensorimotor Development. SROP summer research conference, July 2024. West Lafayette, Indiana.

Yasko AP[1], **Dooley JC.** State-dependent activity in the infant rat Dorsal Raphe Nucleus. Big10 Neuroscience Conference, June 2024.

Nanos A[3], Grobengieser AK[4], **Dooley, JC.** Mapping the cerebral cortex of the developing Long Evans rat in stereotaxic coordinates. Big10 Neuroscience Conference, June 2024.

Dooley JC, Sokoloff G, Blumberg MS. Theta rhythmicity during REM sleep functionally integrates behavior with neural activity in primary motor cortex and red nucleus in preweanling rats. Society for Neuroscience, November 2023.

Gómez LJ, **Dooley JC**, Sokoloff G, Blumberg MS. Thalamic contributions to sensory processing in developing somatosensory and motor cortex. Society for Neuroscience, November 2021.

Glanz RM, **Dooley JC**, Sokoloff G, Blumberg MS. Sensory coding of limb kinematics in motor cortex across a key developmental transition. Society for Neuroscience, November 2021.

Sokoloff G, Evans LG, **Dooley JC**, Schmidt JM, Glanz RM, Yen RY, Hickerson MM, Laughlin HM, Apfelbaum KS, Blumberg MS. Twitches emerge during quiet sleep in the early postnatal period and are synchronized with sleep spindles. International Society for Developmental Neurobiology, November 2021.

Whitehead K, Mistry N, Koskela T, Rupawala M, Meek J, Fabrizi L, **Dooley JC**, Blumberg MS. Face and limb movements in very pre-term human infants. British Neuroscience Association, April 2021.

Dooley JC, Sokoloff S, Blumberg MS. Developmental emergence of REM-sleep-associated theta in sensory thalamus and motor cortex in preweanling rats. Gordon Research Conference: Thalamocortical Interactions, Ventura, CA. February 2020.

Dooley JC, Sokoloff S, Blumberg MS. Sensory feedback from myoclonic twitches during active sleep continues to activate sensorimotor structures beyond early infancy. Society for Neuroscience, October 2019.

Gómez LJ, **Dooley JC**, Sokoloff S, Blumberg MS. Functional divergence of sensory responses in developing sensorimotor cortex. Society for Neuroscience, November 2018.

Dooley JC and Blumberg MS. Sensory "awakening": A rapid developmental transition in state-dependent responses in primary motor cortex. Society for Neuroscience, March 2018.

Dooley JC and Blumberg MS. Differences in state-dependent responses to sensory feedback in motor cortex of developing rats. Society for Neuroscience, November 2017.

Dooley JC, Donaldson MS, and Krubitzer LA. Changes in thalamic connectivity of primary somatosensory cortex resulting from early bilateral enucleations in the short-tailed opossum (*Monodelphis domestica*). Society for Neuroscience, November 2015.

Dooley JC and Krubitzer LA. Effects of early, pervasive exposure to stripes on visual acuity and visual response properties in the short-tailed opossum. Society for Neuroscience, November 2014.

Dooley JC and Krubitzer LA. Changes in the functional organization of the neocortex following lesions to visual cortex early in development. International Society for Developmental Neurobiology; Society for Neuroscience, November 2014.

Dooley JC and Krubitzer LA. Changes in cortical connectivity of primary somatosensory cortex following early loss of vision in the short-tailed opossum (*Monodelphis domestica*). Society for Neuroscience, November 2013. 70.05

Laredo SA, Villalon Landeros R, Orr V, Silva AL, **Dooley JC**, Crean KK, Steinman MQ, and Trainor BC. Photoperiodic regulation of non-genomic effects of estradiol on aggression. Society for Neuroscience, October 2012. 385.13

Dooley JC, Nguyen HM, Seelke AMH, and Krubitzer LA. Visual response properties of visual cortex in short-tailed opossums (*Monodelphis domestica*). Society for Neuroscience, October 2012. 571.27

Seelke AMH, **Dooley JC**, and Krubitzer LA. Differential Distribution of Neurons within the Neocortex of Short-Tailed Opossums (*Monodelphis domestica*). Society for Neuroscience, October 2012. 894.04

Dooley JC, Luu J, Grunewald B, and Krubitzer LA. Tactile discrimination abilities in short-tailed opossums (*Monodelphis domestica*). Society for Neuroscience, November 2011. 517.23

Landeros RV, Silva AL, **Dooley JC**, Paredes LF, and Trainor BC. Effects of endogenous estradiol on aggressive behavior in male *Peromyscus californicus* mice housed in short day photoperiod. Society of Behavioral Neuroendocrinology, November 2011.

Dooley JC and Prendergast BJ. Food restriction delays expression of the seasonal interval timer controlling reproductive development in Siberian Hamsters. University of Chicago honors day poster session, June 2009.

TRAVEL AND PRESENTATION AWARDS

Gordon Research Symposium Travel Award	**2020**
University of Iowa Postdoctoral Association Travel Award	**2019**
University of Iowa Postdoctoral Association Travel Award	**2017**
Travel award to attend the International Society for Developmental Neurobiology meeting	**2017**
UC Davis Graduate Student Travel Award	**2014**
UC Davis Center for Visual Science Travel Fellowship	**2014**
Travel award to attend the International Society for Developmental Neurobiology meeting	**2014**
Full scholarship to attend Barcelona Cognition, Brain, and Technology Summer School	**2014**
1st place Best Student Project, Barcelona Cognition Brain, and Technology Summer School	**2014**
Honorable Mention in UC Davis Interdisciplinary Graduate and Professional Symposium poster contest (people's choice)	**2014**
2nd place UC Davis Interdisciplinary Graduate and Professional Symposium poster contest	**2014**
UC Davis Center for Vision Sciences Travel Fellowship	**2013**
2nd place UC Davis Center for Neuroscience poster contest	**2013**

TEACHING

COURSES TAUGHT

Professor (Purdue University)

Course Name	Commun. clearly	Answers questions	Cares about learning	Makes time	Fair	Inclusive	
Biology 60200 Cellular Neurobiology	4.56	4.56	4.67	4.67	4.67	4.56	**Fall 2023**
Biology 56200 Neural Systems	4.44	4.52	4.48	4.32	4.12	4.44	**Spring 2024**
Biology 60200 Cellular Neurobiology	4.33	4.47	4.67	4.4	4.53	4.47	**Fall 2024**
Biology 56200 Neural Systems	4.11	4.29	4.31	4.29	4.09	4.14	**Spring 2025**

**All scores listed are mean scores (out of a max of 5)*

Graduate Student/Teaching Assistant (University of California, Davis:

Course Name	Knowledge	Enthusiasm	Accessibility	Overall	
Introduction to Psychobiology	4.7	4.8	4.7	4.5	**Spring 2014**
Comparative Neuroanatomy	4.7	4.8	4.7	4.7	**Winter 2013**
Physiological Psychology	4.9	4.9	4.9	4.9	**Winter 2011**

**All scores listed are mean scores (out of a max of 5)*

Course Organizer (UC Davis):

Ethics Topics in Neuroscience **Spring 2013, 2014**

Guest Lecturer (UC Davis):

Sensory Transduction **PSC 101, Spring 2014, Winter 2015**
Cross Modal Plasticity **PSC 121, Winter 2015, Fall 2015**
The Visual System **PSC 121, Spring 2015**
Multimodal Plasticity **PSC 121, Spring 2015**
Visual and Motor Systems **PSC 101, Spring 2014**

SERVICE

DEPARTMENT

- Member of Undergraduate Scholarship Committee (Spring 2023)
- Participated in Sloan PReMMiSS program, providing a 3-week long research opportunity to an undergraduate at Chicago State University (Tajanae 'Nae' Reed, Summer 2023)
- Participated in Sloan PReMMiSS program, providing a 3-week long research opportunity to an undergraduate at Chicago State University (Veronica Coney, Summer 2024)
- Participated in Sloan PReMMiSS program, providing a 2-week long research opportunity to several undergraduates at Chicago State University (Summer 2025)

COLLEGE

- Presented about my research for the College of Science's "Discoveries in Biology" program (Fall 2023)
- Participated in Emerging Leaders Science Scholars program (ELSS), mentoring a first-year undergraduate at Purdue from underrepresented groups (2023-2024)
- Host and mentor an undergraduate (Taylor Svoboda of Lawrence College) as part of Purdue's Summer Research Opportunities (SROP) Program (Summer 2024)
- Participated in Science Scholars program, mentoring two first-year undergraduate at Purdue from underrepresented groups (2024-2026)
- Host and mentor an undergraduate (Veronica Coney of Chicago State University) as part of Purdue's Summer Research Opportunities (SROP) Program (Summer 2025)

UNIVERSITY

- Faculty ambassador for '50 Phone Friday' events for undergraduate recruitment (Spring 2023)
- Member of Big10 Neuroscience annual meeting planning committee (2023-2024)

PROFESSIONAL

Committee membership

Member – SRS Scientific offerings task force, July 1, 2025 to June 30, 2028
Develop the session topics, speakers, and schedule for the biannual "Advances in Sleep and Circadian Sciences" meeting.

European Sleep Research Society's Basic Sleep Research Committee
Develop a consensus-driven standardized manual for sleep research, with a focus on rats and mice.

Grant Review

German Research Foundation (deutsche forschungsgemeinschaft; Winter 2024)
Ad Hoc member, Behavioral Neuroendocrinology, Neuroimmunology, Rhythms, and Sleep (BNNR) Study Section (October 2024)
Reviewer for SLEEP 2025 abstracts (December 2024)

Journal Review

Behavioral Brain Research	eNeuro	Neuron
Brain Behavior Research	Journal of Neuroscience	Neuroscience
Brain Disorders	Neurobiology of Sleep and Circadian Rhythms	Neuroscience Reports
Brain Research	NeuroImage	Scientific Reports
Current Biology	Neuropsychopharmacology	SLEEP
eLife		Sleep Advances

PROFESSIONAL ORGANIZATIONS

Society for Neuroscience, Member	2009 - present
International Society for Developmental Psychobiology	2015 - 2020
Sleep Research Society, Member	2021 - present

MENTORSHIP

UNDERGRADUATES

Maeve Sheehy (2023)	Current Position: Graduate Student, U Colorado, Boulder
Megan Broecker (2023 – present)	Pre-Vet student

Claire Wolfer-Jenkins (2023 – 2025) Applying to graduate school
2025 College of Science Outstanding Student, 2026 Marshall Scholar
Anna Grobengieser (2023 – 2025) Plans on applying to medical school
Alyssa Collins (2023 – present) Applying to graduate schools
Quinn Barnewall (2025 – present) Plans on applying to medical school
Valentina Perera (2025 – present) Plans on applying to medical school

GRADUATE STUDENTS

Madilyn (Madi) Reid (2024 – present)

GRADUATE COMMITTEES

Paola Rodriguez, Department of Biological Sciences, (2023 – present)
Megan Lipton, PuLSE, (2023 – present)
Madilyn (Madi) Reid, Department of Biological Sciences, (March 2024 – present)
Doohyeong Jang, BME, (March 2025 – present)
Raiyan Rashid, Department of Biological Sciences, (August 2025 – present)

POSTDOCTORAL SCHOLARS

Nicholas Sattler, PhD (2024 – present)