Mariana Rodriguez-Santiago, Ph.D.

NIH MOSAIC K99 Postdoctoral Fellow • Colorado State University
marirod@colostate.edu • www.neuromari.com

Education

2020 **Ph.D. in Neuroscience**
The University of Texas at Austin
Advisor: Hans Hofmann, PhD

2016 **Neural Systems & Behavior**
Summer course at the Marine Biological Laboratory (MBL)
Woods Hole, MA

2012 **B.A. in Psychology and Neuroscience**, *cum laude*
University of Colorado at Boulder

Academic Positions

2020 – now **Postdoctoral Researcher**
Colorado State University
Advisor: Kim Hoke, PhD

2013 – 2020 **Ph.D. Student**
Institute for Neuroscience
University of Texas at Austin
Advisor: Hans Hofmann, PhD

2012 – 2013 **Post-baccalaureate Research Intern**
University of Michigan, Ann Arbor
Advisor: Dr. Israel Liberzon

2011 – 2012 **Undergraduate Research Assistant**
University of Colorado at Boulder, Boulder, CO
Advisor: Robert Spencer, PhD

Fellowships & Awards

2025 Travelling Fellowship, The Company of Biologists
3-month research fellowship at the National Institute for Basic Biology (NIBB), Okazaki, Japan

2024 - 2029 NIH MOSAIC K99/R00 Postdoctoral Career Transition Award
2-year mentored phase for postdoctoral research training (K99), 3-year independent research project grant (R00)

2023 Grass Fellowship at the Marine Biological Laboratory (MBL)
3-month research fellowship at the Grass Lab, Woods Hole, MA, USA

2021- 2023 NSF Postdoctoral Fellowship in Biology

2020 Broadening Participation Travel Award for the Society of Integrative Biology (SICB) conference

2018 Trainee Professional Development Award, Society for Neuroscience

2018 Department of Integrative Biology Doctoral Dissertation Improvement Award, University of Texas
2017 Global Research Fellowship, University of Texas at Austin
2-month graduate research fellowship
Max Planck Institute of Animal Behavior, Konstanz, Germany
2017 David Bruton Jr. Endowment for Graduate Fellowships, UT Austin
2016 GSA Professional Development Award, UT Austin
2013 - 2015 Institute for Neuroscience NIH Training Grant, UT Austin
2012 Post-baccalaureate Research Education Program (PREP), University of Michigan
2012 *cum laude* honors in Psychology and Neuroscience
University of Colorado at Boulder
2011 NIH Scholars Program for Diversity in the Biosciences
University of Colorado at Boulder
2008 - 2012 Norlin Scholars Program, University of Colorado at Boulder

Publications

Journal Articles

1. **Rodriguez-Santiago M,** Pouso P, Hoke KL, & Zornik E. (2026) Timescales of call variability in a South American treefrog. *J Comp Physiol A, accepted*
2. Jokura K, Anttonen T, **Rodriguez-Santiago M**, & Arena OM. (2024) Rapid physiological integration of fused ctenophores. *Current Biology* https://doi.org/10.1016/j.cub.2024.07.084
3. **Rodriguez-Santiago M**, Ruppert A, Gall MD, Hoke K, Bee MA, & Baugh AT. (2024) In your CORT: corticosterone and its receptors in the brain underlie mate choosiness in female Cope's gray treefrogs (*Hyla chrysoscelis*). *Hormones and Behavior*, *159*, 105477.
4. **Rodriguez-Santiago M**, Jordan A, & Hofmann H. (2022) Neural activity patterns differ between learning contexts in a social fish. *Proceedings B of the Royal Society B,* 289: 20220135. https://doi.org/10.1098/rspb.2022.0135
5. **Rodriguez-Santiago M***, Nuhrenberg P*, Derry J, Deussen O, Garrison LK, Garza SF, Hofmann HA, & Jordan A. (2020) Behavioral traits that define social dominance are the same that reduce social influence in a consensus task. *Proceedings of the National Academy of Sciences USA, 117*(31), 18566-18573. (* indicates co-first authorship)
6. Krishnan K, Mittal N, Thompson LM, **Rodriguez-Santiago M**, Duvauchelle CL, Crews D, & Gore A. (2018) Effects of the endocrine-disrupting chemicals, vinclozolin and PCBs, on physiological and sociosexual phenotypes in F2 generation sprague-dawley rats. *Environmental Health Perspectives*. doi: 10.1289/EHP3550
7. George SA, **Rodriguez-Santiago M**, Riley J, Abelson JL, Floresco SB, & Liberzon I. (2018) D-cycloserine facilitates reversal in an animal model of post-traumatic stress disorder. *Behavioural Brain Research 347*, 332-338.
8. **Rodriguez-Santiago M**, Nguyen J, Winton LS, Weitekamp CA, & Hofmann HA. (2017) Arginine vasotocin preprohormone is expressed in surprising regions of the teleost forebrain. *Frontiers of Endocrinology*. doi: 10.3389/fendo.2017.00195

9. Osterlund C, **Rodriguez-Santiago M**, Woodruff E, Newsom R, Chadayammuri A, & Spencer R. (2016) Glucocorticoid fast feedback inhibition of stress-induced ACTH secretion in the male rat: rate-independence and stress-state resistance, *Endocrinology*. doi: 10.1210/en.2016-1123.
10. George SA, **Rodriguez-Santiago M**, Riley J, Rodriguez E, & Liberzon I. (2015) The effect of chronic phenytoin administration on single prolonged stress induced extinction retention deficits and glucocorticoid upregulation in the rat medial prefrontal cortex. *Psychopharmacology, 231* 47-56.
11. George SA, **Rodriguez-Santiago M**, Riley J, Abelson JL, Floresco SB, & Liberzon I. (2015) Alterations in cognitive flexibility in a rat model of post-traumatic stress disorder. *Behavioural Brain Research, 286* 256-264.

Presentations

Feb 2026	**Vassar College** | invited seminar Talk: From the ocean to the pond: How sensory communication shapes behavior
July 2024	**International Congress for Neuroethology (ICN)** | Berlin, Germany Poster: Social dynamics modulate the patterning of male calling behavior in a South American treefrog
Sept 2023	**Center for Neuroendocrinology Seminar Series, UMass Amherst** | invited seminar Talk: Neural basis of acoustic mating decisions in a female treefrog
Jan 2023	**Society for Integrative Comparative Biology Conference (SICB)** | Austin, TX Talk: Variability in the vocal repertoire of a South American treefrog.
July 2022	**International Congress for Neuroethology (ICN)** | Lisbon, Portugal Poster: Temporal and social dynamics modulate the vocal repertoire of *Boana pulchellus*
Jan 2020	**Society for Integrative Comparative Biology Conference (SICB)** | Austin, TX Talk: Social context affects learning and neural activity patterns in dynamic social group
Nov 2019	**Brain, Behavior & Evolution Seminar Series, UT Austin** | seminar Talk: Social context affects learning and neural activity patterns in dynamic social groups
July 2019	**Neuroethology Gordon Research Conference** | Mount Vernon, VT Talk & Poster: Impact of social group instability on learning and neural processing of a cue discrimination task
Jan 2019	**Institute for Neuroscience Dialogues Seminar Series**, UT Austin | seminar Talk: Social context affects learning and neural activity patterns in dynamic social groups
Nov 2018	**Society for Neuroscience (SfN)** | San Diego, CA Poster: Social network effects on learning and processing of a visual cue discrimination task
April 2017	**Austin Conference on Learning and Memory** | Austin, TX Poster: Social learning and neural networks in a highly social cichlid fish
Nov 2016	**Society for Neuroscience (SfN)** | San Diego, CA Poster: Neuromolecular mechanisms of learning in a social dominance hierarchy

Dec 2015 **Brain, Behavior & Evolution Seminar Series, UT Austin** | seminar
Talk: Neuromolecular mechanisms of social learning in a cichlid fish.

Teaching Experience

Postdoctoral Teaching Certificate | completed in 2025
The Institute for Learning and Teaching, Colorado State University

Graduate Teaching Assistant | 2018 – 2020
University of Texas at Austin, NEU 335: Neural Systems II

Graduate Teaching Assistant | 2018
University of Texas at Austin, NEU 366S: Neuromolecular Genetics and Disease Laboratory

Graduate Teaching Assistant | 2016
University of Texas at Austin, NEU 361: Comparative Animal Physiology

Guest Lectures

2023 Guest Lecture in Behavioral Genetics | Colorado State University
2023 Guest Lecture in Animal Behavior | Barnard College and Adelphi University.
2021 Guest Lecture in Behavioral Genetics | Colorado State University

Service & Outreach

Assistant Editor, Division of Neurobiology, Neuroethology, and Sensory Biology (DNNSB)
Journal: Integrative and Comparative Biology | 2026 – 2030

Reviewer
Proceedings of the Royal Society B, *Journal of Integrative and Comparative Biology*, *eLife*, *Behavioural Brain Research, Animal Behavior and Cognition, Animal Behaviour, PLoS Computational Biology, Hormones & Behaviour, Scientific Reports, Journal of Experimental Biology*

Lab & Lunch Event | CSU | Spring 2023
Participated in and helped organize lunch event to provide research opportunities to neurodivergent undergraduate students interested in STEM.

Biology panelist | Northglenn High School | Fall 2023
Served as judge and panelist for end-of-project student presentations on boreal toad conservation.

Internship mentor for the Center for Community Partnerships at CSU | 2020 – present
Mentored non-degree-seeking student interns with intellectual and developmental disabilities (IDDs) in research tasks and experiments every spring semester.

Coordinator for the UT/Crockett High School Internship Program | UT Austin | 2014-2019
Served as coordinator for year-long high school internship program in STEM working with students from underrepresented groups. Tasks included outreach events at the high school, matching students with research mentors, event planning for end-of-semester presentations, general guidance for mentors throughout the program duration.

Volunteer for Informal Classes for Adults with IDDs | UT Austin | 2014 – 2018
Volunteer TA for semester-long night classes on topics such as budget management, everyday math skills, and writing for adults in the community with intellectual and developmental disabilities.