

# Dr. Rayna M. Harris

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*Postdoctoral Scholar, University of California, Davis*

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## Education

- 2012 - 2017 Ph.D. Cell and Molecular Biology. The University of Texas at Austin
- 2002 - 2006 B.S. Biochemistry. The University of Texas at Austin

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## Experience

- 2021 - 2022 Postdoctoral Scholar. University of California, Davis
- 2020 - 2022 Parking Supervisor. Alpine Meadows Ski Resort
- 2020 - 2021 Nursery Supervisor. Rock & Rose Nursery & Landscaping
- 2018 - 2020 Postdoctoral Scholar. University of California, Davis
- 2010 - 2012 Laboratory Manager. The University of Texas at Austin
- 2007 - 2010 Teaching Specialist. The University of Texas at Austin

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## Honors and Awards

- 2019 AAAS Community Engagement Fellowship.
- 2019 rstudio::conf 2019 Diversity Scholarship.
- 2017 Outstanding Graduate Student Academic Employee Award.
- 2016, 17 University Graduate Continuing Fellowship.
- 2016 Society for Integrative and Comparative Biology Grant in Aid of Research.
- 2014, 15, 16 Academic Enrichment Fund Award.

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## Service

- 2012 - 2021 Peer-reviewer. AAS Open Research; Behavioral Ecology; Genes, Genomes & Genetics; Genes, Brains & Behavior; Journal of Experimental Zoology Part A; Nature; Physiology & Behavior; Proceedings of the Royal Society B; rOpenSci
- 2019 Coordinator. I Can Science, a National Geographic Video Series
- 2018 - 2019 Spanish Translator. The Carpentries
- 2017 - 2018 Secretary. Software Carpentry Steering Committee
- 2016 - 2017 Poster Judge. College of Natural Science Undergraduate Research Forum
- 2012 - 2017 Coordinator. Annual Big Data in Biology Symposium
- 2014 - 2016 Coordinator. Summer School for Big Data in Biology
- 2014 Coordinator. Transdisciplinary Graduate Student Luncheon
- 2009 Spanish Translator. INBio Park, Costa Rica

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## Publications

- 2022 VS Farrar, RM Harris, SH Austin, BMN Ultreras, AM Booth, F Angelier, et al., Prolactin and prolactin receptor expression in the HPG axis and crop during parental care in both sexes of a biparental bird (*Columba livia*). *General and comparative endocrinology* 315, 113940 Citations: 2
- 2021 SH Austin, JS Krause, R Viernes, VS Farrar, AM Booth, RM Harris, et al., Uncovering the Sex-specific Endocrine Responses to Reproduction and Parental Care. *Frontiers in endocrinology* 12 Citations: 2
- 2021 AL Charbonneau, A Brady, CT Brown, SA Sansone, A Ma'ayan, et al., Making Common Fund data more findable: Catalyzing a Data Ecosystem. *bioRxiv* 2021 (11), <https://doi.org/10.1101/2021.11.05>. Citations: 0
- 2020 A Nederbragt, RM Harris, AP Hill, G Wilson, Ten quick tips for teaching with participatory live coding. *PLoS Computational Biology* 16 (9), e1008090 Citations: 7
- 2020 AS Lang, SH Austin, RM Harris, RM Calisi, MD MacManes, Stress-mediated convergence of splicing landscapes in male and female Rock Doves. *BMC genomics* 21 (1), 1-18 Citations: 3
- 2020 RM Harris, HY Kao, JM Alarcón, AA Fenton, HA Hofmann, Transcriptome analysis of hippocampal subfields identifies gene expression profiles associated with long-term active place avoidance memory. *BioRxiv* Citations: 2
- 2019 DJB Clarke, L Wang, A Jones, ML Wojciechowicz, D Torre, KM Jagodnik, et al., FAIRshake: Toolkit to Evaluate the FAIRness of Research Digital Resources. *Cell systems* 9 (5), 417-421 Citations: 24
- 2019 AJ Northcutt, DR Kick, AG Otopalik, BM Goetz, RM Harris, JM Santin, et al., Molecular profiling of single neurons of known identity in two ganglia from the crab *Cancer borealis*. *Proceedings of the National Academy of Sciences* 116 (52), 26980-26990 Citations: 19
- 2019 DJB Clarke, L Wang, A Jones, ML Wojciechowicz, D Torre, KM Jagodnik, et al., FAIRshake: toolkit to evaluate the findability, accessibility, interoperability, and reusability of research digital resources. *BioRxiv* 657676 Citations: 11
- 2019 RM Harris, HY Kao, JM Alarcon, HA Hofmann, A Fenton, Hippocampal transcriptomic responses to enzyme-mediated cellular dissociation. *Hippocampus* 153585 Citations: 6
- 2019 AJ Northcutt, DR Kick, AG Otopalik, BM Goetz, RM Harris, JM Santin, et al., Molecular Profiling to Infer Neuronal Cell Identity: Lessons from small ganglia of the Crab *Cancer borealis*. *bioRxiv* 690388 Citations: 3
- 2018 GA Devenyi, R Emonet, RM Harris, KL Hertweck, D Irving, I Milligan, et al., Ten simple rules for collaborative lesson development. *PLOS Computational Biology* 14 (3), e1005963 Citations: 18
- 2018 SCP Renn, HE Machado, N Duftner, AK Sessa, RM Harris, HA Hofmann, Gene expression signatures of mating system evolution. *Genome* 61 (4), 287-297 Citations: 13

- 2017 PD Dijkstra, SM Maguire, RM Harris, AA Rodriguez, RS DeAngelis, et al., The melanocortin system regulates body pigmentation and social behaviour in a colour polymorphic cichlid fish. *Proceedings of the Royal Society B: Biological Sciences* 284 (1851), 20162838 Citations: 42
- 2017 RM Harris, AG Otopalik, CJ Smith, D Bucher, J Golowasch, HA Hofmann, Single-Neuron Gene Expression Analysis Using the Maxwell 16 LEV System in the Neural Systems and Behavior Course. *bioRxiv* 107342 Citations: 1
- 2016 C Göppert, RM Harris, A Theis, A Boila, S Hohl, A Rüegg, HA Hofmann, et al., Inhibition of Aromatase Induces Partial Sex Change in a Cichlid Fish: Distinct Functions for Sex Steroids in Brains and Gonads. *Sexual Development* 10 (2), 97-110 Citations: 30
- 2016 RM Harris, LA O'Connell, HA Hofmann, Brain Evolution, Development, and Plasticity. *The Wiley Handbook of Evolutionary Neuroscience* 422 Citations: 4
- 2015 JM Simões, EN Barata, RM Harris, LA O'Connell, HA Hofmann, et al., Social odors conveying dominance and reproductive information induce rapid physiological and neuromolecular changes in a cichlid fish. *BMC genomics* 16 (1), 1-13 Citations: 27
- 2015 RG Oldfield, RM Harris, HA Hofmann, Integrating resource defence theory with a neural nonapeptide pathway to explain territory-based mating systems. *Frontiers in Zoology* 12 (S1), 1-16 Citations: 23
- 2015 RM Harris, HA Hofmann, Seeing is believing: Dynamic evolution of gene families. *Proceedings of the National Academy of Sciences* 112 (5), 1252-1253 Citations: 22
- 2015 CC Smith, RM Harris, KP Lampert, M Scharthl, HA Hofmann, MJ Ryan, Copy number variation in the melanocortin 4 receptor gene and alternative reproductive tactics the swordtail *Xiphophorus multilineatus*. *Environmental Biology of Fishes* 98 (1), 23-33 Citations: 18
- 2014 D Brawand, CE Wagner, YI Li, M Malinsky, I Keller, S Fan, O Simakov, et al., The genomic substrate for adaptive radiation in African cichlid fish. *Nature* 513 (7518), 375-381 Citations: 841
- 2014 EK Fischer, RM Harris, HA Hofmann, KL Hoke, Predator exposure alters stress physiology in guppies across timescales. *Hormones and Behavior* 65 (2), 165-172 Citations: 64
- 2014 RM Harris, HA Hofmann, Neurogenomics of Behavioral Plasticity. *Advances in Experimental Medicine and Biology* 781, 149-168 Citations: 44
- 2014 RM Harris, PD Dijkstra, HA Hofmann, Complex Structural and Regulatory Evolution of the Pro-Opiomelanocortin Gene Family. *General and Comparative Endocrinology* 195, 107-115 Citations: 39
- 2014 KA Stiver, RM Harris, JP Townsend, HA Hofmann, SH Alonzo, Neural Gene Expression Profiles and Androgen Levels Underlie Alternative Reproductive Tactics in the Ocellated Wrasse, *Symphodus ocellatus*. *Ethology* 121 (2), 152-167 Citations: 28

- 2013 RG Oldfield, RM Harris, DA Hendrickson, HA Hofmann, Arginine Vasotocin and Androgen Pathways are Associated with Mating System Variation in North American Cichlid Fishes. *Hormones and Behavior* 64, 44-52 Citations: 26
- 2013 AK Sessa, RM Harris, HA Hofmann, Sex Steroid Hormones Modulate Responses to Social Challenge and Opportunity in Males of the Monogamous Convict Cichlid, *Amatitlana nigrofasciata*. *General and Comparative Endocrinology* 189, 59-65 Citations: 23

## --- Selected Presentations

*Available at <https://speakerdeck.com/raynamharris>*

- 2020 Shiny Musical Genes. UC Davis
- 2020 A journey in 'omics research from the bottom of the ocean to the top of a mountain. Sacramento State University
- 2020 Life lessons and scientific insight from methods-, hypothesis-, and data-driven research. UC Davis
- 2020 Peaks and valleys of prolactin-driven gene expression during parental care. UC Davis
- 2019 Community-driven efforts to translate educational materials into many languages. FORCE 11 Annual Meeting
- 2019 RNAseq: A five course meal. UC Davis
- 2019 Managing Multilingual Communities. rOpenSci Community Call
- 2019 Networking strategies. AAAS Center for Scientific Collaboration and Community Engagement
- 2018 The Carpentries Instructor Training. LatinR Annual Conference
- 2018 Usando y Enseñando R para Investigación Reproducible. R Ladies Buenos Aires
- 2018 Zombie Brains: Microbial Mind Control. Nerd Nite Austin
- 2017 Transcriptional plasticity in the hippocampus and its role in avoidance learning. UT Austin