

Nicole M. Baran, Ph.D.

Curriculum Vitae

NIH NRSA Postdoctoral Fellow

Georgia Institute of Technology • School of Biological Sciences
Engineered Biosystems Building (EBB) • 950 Atlantic Drive NW • Atlanta, GA 30332
nicole.baran@biology.gatech.edu • 720-371-4149 • <http://www.nicolembaran.com/>

EDUCATION

2015 **Ph.D.**, Cornell University, Psychology - Behavioral & Evolutionary Neuroscience
2009 **B.A.**, The University of Chicago, Comparative Human Development, Honors
2009 **B.A.**, The University of Chicago, Economics

RESEARCH

2017-2019 *NIH NRSA Postdoctoral Fellow*, Georgia Institute of Technology
School of Biological Sciences, Advisor: J. Todd Strelman
2015-2017 *Postdoctoral Fellow*, Georgia Institute of Technology
School of Biological Sciences, Advisor: J. Todd Strelman
2009-2015 *Graduate Research Assistant*, Cornell University
Department of Psychology, Advisor: Elizabeth Adkins-Regan
2007-2009 *Undergraduate Research Assistant*, The University of Chicago
Booth School of Business, Advisors: Luigi Zingales, Paola Sapienza

FELLOWSHIPS AND GRANTS

2017-2019 NIH/NIGMS – F32 125496, “Neural and genetic basis of social behavior in cichlid fish” (\$116,232)
2013-2015 NSF, IOS -1310908, "DISSERTATION RESEARCH: Developmental mechanisms organizing affiliative behavior and pair bonding" (\$20,274)
2014 Cornell Graduate School Conference Travel Grant (\$675)
2013-2014 NIH 5T32HD055177-05, IMAGINE (Ithaca-Manhattan Graduate Initiative in Neuroscience) NIH-Funded Graduate Training Grant – Multidisciplinary Training in Development & Learning (*Trainee*)
2013 Cornell Graduate School Conference Travel Grant (\$360)
2012 Cornell Graduate School Conference Travel Grant (\$515)
2011 Cornell Graduate School Conference Travel Grant (\$335)
2011 Frank M. Chapman Memorial Fund Research Grant, American Museum of Natural History, April 2011 (\$2,000)
2007 University of Chicago Undergraduate Richter Research Grant (\$600)

PUBLICATIONS

10. Baran, N.M. (2017) Sensitive periods, vasotocin-family peptides, and the evolution and development of social behavior. *Frontiers in Endocrinology*. Research Topic: The Vasopressin System and Behavior. <http://journal.frontiersin.org/article/10.3389/fendo.2017.00189/full>

9. **Baran, N.M.**, Peck, S.C., Kim, T.H., Goldstein, M.H., Adkins-Regan, E. (2017) Early life manipulations of vasopressin-family peptides alter vocal learning. *Proceedings of the Royal Society B: Biological Sciences*. <http://rspb.royalsocietypublishing.org/content/284/1859/20171114>
8. **Baran, N.M.**, McGrath, P.T., Strelman, J.T. (2017) Applying gene regulatory network logic to the evolution of social behavior. *Proceedings of the National Academy of Science*. <http://www.pnas.org/content/early/2017/05/30/1610621114>
7. **Baran, N.M.**, Tomaszycski, M. L., Adkins-Regan, E. (2016) Early life manipulations of the nonapeptide system alter pair maintenance behaviors and neural activity in adult male zebra finches. *Frontiers in Behavioral Neuroscience*. <http://journal.frontiersin.org/article/10.3389/fnbeh.2016.00058/full>
6. **Baran, N.M.**, Sklar, N.C., & Adkins-Regan, E. (2016) Developmental effects of vasotocin and nonapeptide receptors on early social attachment and affiliative behavior in the zebra finch. *Hormones & Behavior*. <http://dx.doi.org/10.1016/j.yhbeh.2015.10.005>
5. **Baran, N.M.** & Reeve, H.K. (2015). Co-evolution of parental care, parasitic, and resistance efforts in facultative parasitism. *The American Naturalist*. <http://www.jstor.org/stable/10.1086/683227>
4. Schweitzer, C., Schwabl, H., **Baran, N. M.**, & Adkins-Regan, E. (2014). Pair disruption in female zebra finches: consequences for offspring phenotype and sensitivity to a social stressor. *Animal Behaviour*, 90, 195–204. <http://dx.doi.org/10.1016/j.anbehav.2014.01.022>
3. **Baran N.M.** & Adkins-Regan E. (2014) Breeding experience, alternative reproductive strategies and reproductive success in a captive colony of zebra finches (*Taeniopygia guttata*). *PLoS ONE* 9(2): e89808. <http://dx.doi.org/10.1371/journal.pone.0089808>
2. **Baran, N.M.**, Sapienza, P., & Zingales, L. (2010). Can we infer social preferences from the lab? Evidence from the Trust Game. Chicago Booth Research Paper No. 10-02. Available at SSRN: <http://ssrn.com/abstract=1540137>
1. Maestriperi, D., **Baran, N.M.**, Zingales, L., & Sapienza, P. (Sept. 2010). Between- and within-sex variation in hormonal responses to economic decision making tests in a large sample of college students. *Stress: The International Journal on the Biology of Stress*. <http://informahealthcare.com/doi/abs/10.3109/10253891003681137>

BOOK REVIEWS

1. Adkins-Regan, E., **Baran, N. M.**, Fernandez-Vargas, M., McKenna Kelly, E., & Smiley, K. O. (2014). [Review of *Oxytocin, Vasopressin and Related Peptides in the Regulation of Behavior*. Choleris, E., Pfaff, D. W., & Kavaliers, M. (Eds.)]. *Animal Behaviour*, 87, 240–241. doi:10.1016/j.anbehav.2013.11.004

INVITED SEMINARS

- 2014 “Organizational effects of vasotocin on early attachment and song learning in the zebra finch.” Deakin University, Center for Integrative Ecology, Geelong, Victoria, Australia
- 2011 “What does breeding experience buy you? Parental care, extra-pair fertilizations, and clutch survival in the zebra finch.” with Elizabeth Adkins-Regan, Cooperation & Parental Care Symposium, Cornell University, Lab of Ornithology, Ithaca, NY.
- 2009 “Facing the Facts: Assessing the hypothesis that male facial traits are honest signals of mate quality.” Animal Behavior Brownbag Seminar, The University of Chicago

- 2008 “Gender, Testosterone and Risk Aversion.” Chicago Area Undergraduate Research Symposium.

CONFERENCE PRESENTATIONS

- 2017 “Species differences in aggressive behavior and neural activity in Lake Malawi cichlid fish,” with J. Todd Streebman, Annual Meeting of the Society for Behavioral Neuroendocrinology (SBN) in Long Beach, CA, poster presentation
- 2016 “The evolution and development of social behavior from birds to fish,” Junior Scientist Workshop on the Evolution of Behavior, Janelia Research Campus, Ashburn, VA
- 2015 “Organizational vasotocin and V1aR antagonist alter affiliation, courtship, and song learning, in the zebra finch,” with S. V. Carouso, T. H. Kim, M. H. Goldstein, M. L. Tomaszycski, and E. Adkins-Regan, Annual Meeting of the Society for Behavioral Neuroendocrinology (SBN) in Pacific Grove, CA, poster presentation
- 2015 “Organizational effects of vasotocin and V1aR on song learning and courtship in the zebra finch,” 22nd Annual Indiana University Animal Behavior Conference in Bloomington, IN, oral presentation
- 2015 “Organizational effects of vasotocin and V1aR on attachment, courtship, and pair bonding in the zebra finch,” Annual Meeting of the Society for Integrative and Comparative Biology (SICB) in West Palm Beach, FL, oral presentation
- 2014 “Vasotocin and V1aR exert organizational influences on courtship and pair maintenance behaviors in the zebra finch,” with M.L. Tomaszycski, S.V. Carouso, and E. Adkins-Regan, Annual Meeting of the Society for Neuroscience (SFN) in Washington, D.C., poster presentation
- 2014 “Vasotocin and V1aR exert organizational effects on early attachment and song learning the zebra finch” with S.V. Carouso, M.H. Goldstein, E. Adkins-Regan, Joint Meeting of the International Congress of Neuroendocrinology (ICN) and the Society for Behavioral Neuroendocrinology (SBN) in Sydney, New South Wales, Australia., poster presentation
- 2013 “A dynamic state variable model of hormonal pleiotropy” with H.K. Reeve, F. Havlak, & E. Adkins-Regan, Meeting of the Society for Behavioral Neuroendocrinology, Georgia State University, Atlanta, GA., poster presentation
- 2012 “Female Japanese quail (*Coturnix japonica*) do not bias sex ratio in response to ‘monogamous’ versus ‘promiscuous’ matings.” with F. Ransler Finseth and E. Adkins-Regan, Meeting of the Animal Behavior Society (ABS), University of New Mexico, Albuquerque, NM., poster presentation
- 2011 “What does breeding experience buy you? Parental care, extra-pair fertilizations, and clutch survival in the zebra finch” with E. Adkins-Regan, Cooperation & Parental Care Symposium, Cornell University, Lab of Ornithology, Ithaca, NY., poster presentation
- 2010 “A tug-of-war game theory model of mixed-strategy parasitism” with H.K. Reeve, Joint meeting of the Animal Behavior Society (ABS) and the International Ethological Conference. Indiana University, Bloomington, IN., poster presentation

AWARDS AND HONORS

- 2015 **Graduate Teaching Award**, Cornell University, Department of Psychology

TEACHING EXPERIENCE

- 2015 **Developmental Psychology**, Teaching Assistant, Cornell University, *Spring*
- 2014 **Myths & Mechanisms in the Evolution of Brain and Behavior (First-Year Writing Seminar)**, Course Instructor, Cornell University, *Fall*
- Student in course received James E. Rice, Jr. prize for excellence in expository writing from the Cornell University Knight Institute for Writing in the Disciplines
- 2013 **Neurobiology of Learning & Memory**, Teaching Assistant and Guest Lecturer, Cornell University, *Spring*
- 2012 **Statistics and Research Design**, Teaching Assistant, Cornell University, *Fall*
- 2012 **Developmental Psychology**, Teaching Assistant, Cornell University, *Spring*
- 2011 **Introduction to Biological Psychology**, Teaching Assistant and Guest Lecturer, Cornell University, *Fall*
- 2011 **Computational Psychology**, Teaching Assistant, Cornell University, *Spring*
- 2010 **Introduction to Biological Psychology**, Teaching Assistant, Cornell University, *Fall*
- 2010 **Hormones and Behavior**, Teaching Assistant, Cornell University, *Spring*
- 2009 **Introduction to Cognitive Science**, Teaching Assistant and Guest Lecturer, Cornell University, *Fall*
- 2009 **Animal Behavior**, Teaching Assistant, The University of Chicago, *Winter*

INSTITUTIONAL LEADERSHIP AND SERVICE

- 2016 Graduate Women in Science (GWIS), Grant application reviewer
- 2013-2016 Society for Behavioral Neuroendocrinology, Professional Development Committee, graduate student member
- 2013 –2015 Cornell University Graduate & Professional Student Assembly (GPSA), Counsel to the Assembly
- 2013-2014 Cornell Graduate & Professional Women’s Network (GPWomeN), co-Founder and Operations Chair
- 2013-2014 Cornell Department of Psychology T.A. Ryan Honors Thesis Award, reviewer
- 2013-2014 Cornell Undergraduate Research Board (CURB) annual symposium, poster judge
- 2013-2014 National Association of Graduate-Professional Students (NAGPS), Northeast Regional Chair
- 2013 Sigma Xi Cornell Chapter, Grant application reviewer
- 2012-2013 Cornell Department of Psychology, Behavioral & Evolutionary Neuroscience, Faculty Search Committee, student representative
- 2011-2013 Cornell University Graduate & Professional Student Assembly (GPSA), Executive Vice President
- 2010-2011 Cornell University Graduate & Professional Student Assembly (GPSA) Social Sciences Representative, Events Committee Chair
- 2009-2010 Cornell University Graduate & Professional Student Assembly (GPSA), Psychology Field Representative

OUTREACH ACTIVITIES

- 2016 Brain Awareness Month Classroom Visit, Atlanta Chapter of the Society for Neuroscience

- 2013 Expanding Your Horizons, Workshop Organizer, “Brains!”
- 2013 Nerd Night presentation, “Everything you ever wanted to know about bird sex (but were afraid to ask).”
- 2012 Expanding Your Horizons, Workshop Organizer, “Brains!”
- 2011 Expanding Your Horizons, Workshop Organizer and Creator, “Brains!”

WORKSHOPS AND TRAINING

- 2016 Junior Scientist Workshop on Genetic and Neurobiological Basis for the Evolution of Behavior, Janelia Research Campus/HHMI, Ashburn, VA, April 4-7, 2016
- 2015 Zebrafish Development & Genetics Course, Marine Biological Laboratory, Woods Hole, MA, August 9-22, 2015
- 2014 Techniques in Neuroendocrine Research Workshop, Center for Neuroendocrinology, University of Otago, Dunedin, New Zealand, August 10-16, 2014
- 2014 American Association for the Advancement of Science (AAAS) Catalyzing Advocacy in Science and Engineering (CASE) Pilot Policy Workshop, Washington, D.C., March 31-April 2, 2014
- 2013 Teaching Neuroendocrinology Workshop, Society for Behavioral Neuroendocrinology Annual Meeting, Atlanta, GA, June 25, 2013

PROFESSIONAL AFFILIATIONS

Society for Behavioral Neuroendocrinology (SBN)
Society for Neuroscience (SFN)
Society for Social Neuroscience (S4SN)
Society for Integrative & Comparative Biology (SICB)
Animal Behavior Society (ABS)