

Jason A. Miranda Ph.D.

Emory University
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Curriculum Vitae

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EDUCATION

- 2001-2007 **Ph. D. Neuroscience**, University of Texas at Austin, Austin, Texas
Dissertation: Sex differences and hormone influences on auditory processing of communication signals in the green treefrog (*Hyla cinerea*)
Advisor: Walter Wilczynski, Ph. D.
- 1998-2001 **B. S. Life Science**, Arizona State University West, Barrett Honors College, Glendale, Arizona
Honors Thesis: Forebrain arginine vasotocin in a fish with alternative mating tactics
Advisor: Matthew Grober, Ph. D.
- 1996-1999 Glendale Community College, Glendale, Arizona

RESEARCH

- 2007-present **Postdoctoral Research Fellow**, Department of Biology, Emory University
Neural processing of communication sounds in the auditory cortex of the mouse
Advisor: Robert Liu, Ph. D.
- Summer 2008 **Participant**, Neuroinformatics course, Marine Biological Laboratory, Woods Hole, MA
- 2001-2007 **Graduate Research Assistant**, Department of Psychology, The University of Texas at Austin
Neuroendocrine mechanisms of communication in the green treefrog (*Hyla cinerea*)
Advisor: Walter Wilczynski, Ph. D.
- Summer 2002 **Participant**, Neural Systems and Behavior course, Marine Biological Laboratory, Woods Hole, MA
- 1997-2001 **Undergraduate Research Assistant**, Department of Life Sciences, Arizona State University
Cellular activity in the brain during sex change in the bluebanded goby (*Lythrypnus dalli*)
Advisor: Matthew Grober, Ph. D.
- Summer 2000 **Research experience for undergraduates**, Department of Biology, Boston University
The effects of estrogen and xenoestrogens on development in the zebrafish (*Danio rerio*)
Advisor: Gloria Callard, Ph. D.

FIELDWORK

- Summer 1999 **Undergraduate Research Assistant**, Department of Oceans and Fisheries, Universidade dos Açores, Azores, Portugal
Alternative Mating Strategies in the Azorean rock-pool blenny (Drs. Matthew Grober, Rui Olivera, Ricardo Santos)
- Summer 1998 **Undergraduate Research Assistant**, Glover's Reef Marine Reserve, Middle Cay, Belize
Behavioral and Neurochemical Correlates of sex change in the bluehead wrasse (Drs. Matthew Grober, & John Godwin)
- Summer 1998 **Undergraduate Research Assistant**, Wrigley Institute for Environmental Studies, Catalina Island, CA
Field studies of sex change in the bluebanded goby (Drs. Matthew Grober & Robert Reavis)

FELLOWSHIPS AND AWARDS

- 2007-2011 **Postdoctoral Fellowship**, Fellowship in Research and Science Teaching, Emory University
- 2002-2007 **Graduate Research Fellowship**, National Research Service Award, National Institute of General Medical Sciences (\$114,600)
- 2004 **Travel award**, Society for Behavioral Neuroendocrinology, International Conference, Lisbon, Portugal
- 2001-2003 **Neuroscience Fellowship**, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) (\$6,000)
- 2002-2003 **Graduate Research Fellowship**, Bruton Fellowship, University of Texas at Austin (\$1,000)
- 2002 **National Science Foundation Graduate Research Fellowship** Honorable Mention
- 2002 **Society for Neuroscience Minority Neuroscience Fellowship Program**, Alternate
- 2001 **Travel Award**, (SACNAS) National Conference, Phoenix, Arizona
- 2000-2001 **Minority Access to Research Careers Fellowship**, Arizona State University
- 2000 **National Science Foundation – Research Experience for Undergraduates**, Boston University Department of Biology
- 1999 **Travel Award** (SACNAS) National Conference, Portland, Oregon
- 1999 **Eli Lilly Scholarship** Honorable Mention (SACNAS)
- 1999 **Professional Advancement Award**, Associated Students of Arizona State University West (travel funds to attend Society for Neuroscience Meeting in Miami, Florida)
- 1998 **Salt River Project Undergraduate Research Science Award**, Arizona State University West (tuition for 1 semester)
- 1998 **Travel Award** (SACNAS) National Conference, Washington, D.C.
- 1998 **Travel Award**, National Minority Research Symposium, New York, New York
- 1998 **Hughes/Biology Research Experience for Undergraduates**, Arizona State University, Department of Biology (1 year research fellowship)
- 1997 **National Institutes of Health Bridges to Biomedical Careers**, Arizona State University West, Department of Life Sciences (summer research fellowship)
- 1997 **National Science Foundation Research Experience for Undergraduates**, Arizona State University West, Department of Life Sciences (1 year research fellowship)
- 1996 **President's Scholarship**, Glendale Community College (Top 15% of High School Graduation Class, tuition for 2 years)

PEER REVIEWED PUBLICATIONS

- (7) **Miranda JA** & Liu RC. 2009. Dissecting natural sensory plasticity: hormones and experience in a maternal context. *Hearing Research* DOI: 10.1016/j.heares.2009.04.014
- (6) **Miranda JA** & Wilczynski W. 2009. Sex differences and androgen influences on midbrain auditory thresholds in the green treefrog, *Hyla cinerea*. *Hearing Research* DOI: 10.1016/j.heares.2009.04.004.
- (5) **Miranda JA** & Wilczynski W. 2009. Female reproductive state influences the auditory midbrain response. *Journal of Comparative Physiology, A* 195(4), 341-349.
- (4) **Miranda JA**, Oliveira RF, Carneiro LA, Ricardo SS, Grober MS. 2003. Neurochemical correlates of male polymorphism and alternative reproductive tactics in the Azorean rock-pool blenny, *Parablennius parvicornis*. *General and Comparative Endocrinology* 132, 183-189.
- (3) Oliveira RF, Carvalho N, **Miranda J**, Gonçalves EJ, Grober M, Santos RS. 2002. The relationship between the presence of satellite males and nest-holders' mating success in the Azorean rock-pool blenny, *Parablennius sanguinolentus parvicornis*. *Ethology* 108, 223-235.
- (2) Kishida M, McLellan M, **Miranda JA**, Callard GV. 2001. Estrogen and xenoestrogens upregulate the brain aromatase isoform (P450aromB) and perturb markers of early development in zebrafish (*Danio rerio*). *Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology* 129, 261-268.

PEER REVIEWED PUBLICATIONS CONTINUED

- (1) Oliveira RF, **Miranda JA**, Carvalho N, Gonçalves EJ, Grober MS, Santos RS. 2000. Male mating success in the Azorean rock-pool blenny, *Parablennius sanguinolentus parvicornis*: the effects of body size, male behavior and nest characteristics. *Journal of Fish Biology* 57, 1416-1428.

ABSTRACTS

- Miranda, JA**. 2008. Hormone influences on auditory processing in the green treefrog, *Hyla cinerea*. *Brain Behavior and Evolution*. 72 (1), 82.
- Miranda, JA** and Wilczynski W. 2006. Sex differences in multiunit auditory thresholds and response strengths in the green treefrog (*Hyla cinerea*). Program No. 579.6. *2006 Abstract Viewer/Itinerary Planner*, Washington, DC: Society for Neuroscience CD-ROM.
- Miranda, JA** and Wilczynski, W. 2004. Arginine vasotocin and androgen effects on auditory sensitivity in the male green treefrog (*Hyla cinerea*). Program No. 334.16. *2004 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience
- Miranda, JA** and Wilczynski, W. 2004. Sex differences and androgen effects on auditory sensitivity in the green treefrog, *Hyla cinerea*. *Hormones and Behavior* 46, 117.
- Miranda, JA** and Wilczynski, W. 2003. Substance P immunoreactivity in retinal target regions of the green tree frog (*Hyla cinerea*). Program No. 94.2. *2003 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience CD-ROM.
- Grober MS, Perry A, Godwin J, Semsar K, **Miranda J**, Ford D. Preoptic vasotocin mRNA expression changes during adult sex reversal. Program No. 781.18. *2002 Abstract Viewer/Itinerary Planner*. Washington, DC: Society for Neuroscience, 2002. CD-ROM.
- Miranda JA**, Oliveira RF, Carneiro LA, Canario AVM, Santos RS, Grober MS. 2000 The role of arginine vasotocin in a sexually dimorphic fish. *Society for Neuroscience* 26, 1002.
- Miranda JA**, Grober MS, Olivera RF, Santos RS. 1999. Alternative mating strategies in the Azorean rock-pool blenny (*Parablennius sanguinolentus parvicornis*). National Minority Research Symposium. November 10th-13th, 1999.
- Miranda JA**, Grober MS, Olivera RF, Santos RS. 1999. Alternative mating strategies in the Azorean rock-pool blenny (*Parablennius sanguinolentus parvicornis*). Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference. October 9th, 1999.
- Miranda JA**, Black MP, Grober MS. 1998. Sex Change in the Bluebanded Goby, *Lythrypnus dalli*: Lab vs. Field. *Journal of the Arizona-Nevada Academy of Science* V. 34. April 17, 1999.
- Miranda JA**, Black MP, Grober MS. 1998. Sex Change in the Bluebanded Goby, *Lythrypnus dalli*: Lab vs. Field. 6th Annual Undergraduate Biology Education Program's Research Symposium. January 29, 1999.
- Miranda JA**, Black MP, Grober MS. 1998. Sex Change in the Bluebanded Goby, *Lythrypnus dalli*: Lab vs. Field. National Minority Research Symposium, November 22nd, 1998.

PUBLIC PRESENTATIONS

- 2008 Hormone influences on auditory processing in the green treefrog, *Hyla cinerea*. 28th Annual meeting of the J. B. Johnston Club: An International Organization of Researchers in Comparative and Evolutionary Neurobiology. Washington, DC.
- 2007 Invited speaker: Computational Neuroscience Seminar, Department of Biology, Emory University
- 2007 Invited speaker: Departmental Seminar, Department of Psychology, University of California San Diego
- 2006 Invited speaker: Physiology & Behavior seminar series, The University of Texas at Austin
- 2006 Graduate student oral presentation, The Society for the Advancement of Chicanos and Native Americans in Science National Conference, Tampa, FL
- 2006 Invited speaker: Neuroscience Graduate Students Association Annual Retreat, The University of Texas at Austin
- 2005 Invited speaker: Institute for Neuroscience Annual Symposium, The University of Texas at Austin

Public presentations continued

- 2002 Invited speaker: Bridges Summer Science Night Lecture Series, Arizona State University West
2001 3rd annual Minority Access to Research Careers symposium, Arizona State University
2000 NSF-Research Experience for Undergraduates Summer Program Symposium, Boston University

TEACHING

- 2009 **Adjunct Faculty – PSY315L – Sensation and Perception Laboratory**, Spelman College
2009 **Guest Lecturer – PSY315 – Sensation and Perception** (5 lectures, 1 exam) – Spelman College
2005 **Teaching Assistant – BIO365L – Neurobiology Laboratory**, The University of Texas at Austin
(Dr. Nace Golding)
1999 **Lab Teaching Assistant – BIO183 - Introductory Biology for Majors**, Arizona State University
(Dr. Robert Reavis)

STUDENT MENTORSHIP

- Undergraduates** Yalda Moayedi, The University of Texas at Austin (now PhD student at Baylor College of Medicine)
Robert Jimenez, The University of Texas at Austin
Tatsuya Oishi, Emory University

PROFESSIONAL SERVICE

- 2008 **Mentor**, BRAIN Summer Undergraduate Research Program, NSF Center for Behavioral Neuroscience
2006-2007 **Mentor**, Open Mentoring Program, University of Texas at Austin, College of Natural Sciences
2006 **Mentor**, SACNAS PhDs² (Partnering for Higher Degrees—Scientists and Students)
2004-2006 **Member**, Presentations Committee & Membership Committee, SACNAS
2004-2005 **Elected Student Member**, Board of Directors, SACNAS
2003-2005 **Coordinator**, Annual book raffle and travel award fundraiser, JB Johnston Club
2001-2003 **Treasurer/Webmaster**, Neuroscience Graduate Students' Association, The University of Texas at
Austin
1998 **Historian**, Glendale Greens environmental awareness club, Glendale Community College
1996-1997 **Treasurer**, Glendale Greens environmental awareness club, Glendale Community College

REVIEWER FOR

Journal of Comparative Physiology A

SCIENTIFIC MEMBERSHIPS

- 2001-2009 Society for Neuroscience
1999-2009 The J.B. Johnston Club – An International Organization of Researchers in Comparative and Evolutionary
Neurobiology
1998-2009 Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)
2009 Faculty for Undergraduate Neuroscience