

## CURRICULUM VITAE

Luis A. Martinez  
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 Trinity College  
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### EDUCATION

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Degree: Doctor of Philosophy in Neuroscience (2006-2013)  
 Institution: Georgia State University, Atlanta, GA  
 Advisors: Aras Petrusis (primary advisor), Elliott Albers (co-advisor)

Degree: Master of Science in Neuroscience (2006-2011)  
 Institution: Georgia State University, Atlanta, GA  
 Advisors: Aras Petrusis (primary advisor), Elliott Albers (co-advisor)

Degree: Bachelor of Science in Psychology (1998-2000; 2004-2006)  
 Institution: University at Buffalo, Buffalo, NY  
 Advisor: Scott Wersinger

### PROFESSIONAL POSITIONS

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Position: Associate Professor, Neuroscience Program (2022-present)  
 Institution: Trinity College, Hartford CT

Position: Assistant Professor, Neuroscience Program (2016-2022)  
 Institution: Trinity College, Hartford CT

Position: Postdoctoral Fellow, Department of Neuroscience (2013-2016)  
 Institution: University of Minnesota, Minneapolis, MN  
 Advisor: Paul Mermelstein

### GRANTS, FELLOWSHIPS, AWARDS, AND HONORS

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Junior Faculty Research Fellowship, Trinity College, 2016  
 NIDA Diversity Scholar Travel Award, Society for Neuroscience Annual Meeting, Chicago, IL, 2015  
 SPINES Travel Award (Declined due to scheduling conflict), SPINES Symposium, Chicago, IL, 2015  
 NIDA Institutional Training Grant Fellowship (T32), University of Minnesota, 2015-present  
 NIDA Diversity Supplement Fellowship, University of Minnesota, 2013-2014  
 GSU Dissertation Grant, Georgia State University, 2012-2013  
 Honeycutt Fellow, Georgia State University, 2011-2013  
 Center for Neuromics Student Research Award, Georgia State University, 2011  
 Travel Award, Society for Behavioral Neuroendocrinology Annual Meeting, Groningen, Netherlands, 2008  
 Brains & Behavior Program Fellow, Georgia State University, 2008-2013  
 Center for Behavioral Neuroscience Scholar, Georgia State University, 2006-2013

APA Diversity Program in Neuroscience Predoctoral Fellowship, Georgia State University, 2006-2008  
Summer Program in Neuroscience, Ethics, and Survival Fellow, Marine Biological Laboratories, 2006  
Feldman-Cohen Award for Distinguished Honors Achievement, University at Buffalo, 2006  
Undergraduate Research and Scholarship Award of Distinction, University at Buffalo, 2006  
Psychology Honors Program, University at Buffalo, 2005-2006  
McNair Scholar, University at Buffalo, 2005-2006  
McNair Summer Research Scholarship, University at Buffalo, 2005  
Dean's List, University at Buffalo, 1998, 2004-2006  
University Honors Scholar, University at Buffalo, 1998-2000  
Minority Academic Achievement Program Scholar, University at Buffalo, 1998-2000

## PUBLICATIONS

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1. Tzianabos, C.\*, Chouinard, G.\*, & **Martinez, L.** Alterations to the copulatory sequence observed in male Sprague-Dawley rats maintained on a ketogenic diet. *Manuscript Accepted for Publication in Physiology & Behavior* (2024). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4825323](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4825323)
2. Arqoub, A.\*, Flynn, K.\*, & **Martinez, L.** Gestational exposure to a ketogenic diet increases sociability in CD-1 mice. *Behavioral Neuroscience* (2020), 134(4): 358-368. 10.1037/bne0000368
3. **Martinez, L.**, Lees, M.\*, Ruskin, D., & Masino, S. A ketogenic diet diminishes behavioral responses to cocaine in young adult male and female rats. *Neuropharmacology* (2019), 149: 27-34. 10.1016/j.neuropharm.2019.02.001
4. **Martinez, L.**, Gross, K., Himmler, B., Emmitt, N., Peterson, B., Gross, K., Zlebnik, N., Olive, M., Carroll, M., Meisel, R., & Mermelstein, P. Estradiol facilitation of cocaine self-administration in female rats requires activation of mGluR5. *eNeuro* (2016), 3(5): ENEURO.0140-16.2016.
5. Gross, K., Bradner, D., **Martinez, L.**, Olive, M., Meisel, R., & Mermelstein, P. Opposite effects of mGluR1a and mGluR5 activation on nucleus accumbens medium spiny neuron dendritic spine density. *PLoS ONE* (2016), 11(9): 1-12.
6. Peterson, B., **Martinez, L.**, Meisel, R., & Mermelstein, P. Estradiol impacts the endocannabinoid system to influence behavioral and structural responses to cocaine in female rats. *Neuropharmacology* (2016), 110(A): 118-124.
7. **Martinez, L.**, Peterson, B., Meisel, R., & Mermelstein, P. Estradiol facilitation of cocaine-induced locomotor sensitization in female rats requires activation of mGluR5. *Behavioural Brain Research* (2014), 271: 39-42.
8. Shahbazi, M., Jiminez, P., **Martinez, L.**, & Carruth, L. Effects of housing condition and early corticosterone treatment on learned features of song in adult male zebra finches. *Hormones and Behavior* (2014), 65(3): 226-237.

9. **Martinez, L.**, Levy, M., & Petrulis, A. Endogenous oxytocin is necessary for preferential Fos expression to male odors in the bed nucleus of the stria terminalis in female Syrian hamsters. *Hormones and Behavior* (2013), 64(4): 653-664.
10. **Martinez, L.** & Petrulis, A. The medial preoptic area is necessary for sexual odor preference, but not sexual solicitation, in female Syrian hamsters. *Hormones and Behavior* (2013), 63(4): 606-614.
11. **Martinez, L.** & Petrulis, A. The bed nucleus of the stria terminalis is critical for sexual solicitation, but not for opposite-sex odor preference, in female Syrian hamsters. *Hormones and Behavior* (2011), 60(5): 651-659.
12. **Martinez, L.**, Albers, H.E., & Petrulis, A. Blocking oxytocin receptors inhibits vaginal marking to male odors in female Syrian hamsters. *Physiology and Behavior* (2010), 101(5): 685-692.
13. Young, W., Wersinger, S., Caldwell, H., **Martinez, L.**, Gold, P., & Hu, S. Vasopressin 1a receptor knockout mice have a subtle olfactory deficit but normal aggression. *Genes, Brain and Behavior* (2007), 6(6): 540-551.

## PRESENTATIONS AND TALKS

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1. Schoenborn, I.\*, Ramsden, A.\*, Rooney, S.\*, Mikolajczak, T.\*, Cumpa Gomez, L.\*, & **Martinez, L.** (April, 2024). *Evaluating sensitivity to cocaine in adolescent spontaneously hypertensive rats, a rodent model of attention-deficit/hyperactivity disorder*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.
2. Kirylo, M.\*, Mikolajczak, T.\*, Lenois, D.\*, Puljung, M., & **Martinez, L.** (April, 2024). *Estrogen replacement therapy to reduce neurodegeneration and socio-cognitive deficits in a female Sprague Dawley rat model of early-onset Alzheimer's Disease*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.
3. Cumpa Gomez, L.\*, Lenois, D., & **Martinez, L.** (April, 2024). *The Impact of 2D:4D Ratios and Sexual Orientation on Susceptibility to Anxiety-like Symptoms and Problematic Drug Use in Young Adult College Students*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.
4. Schoenborn, I.\*, Ramsden, A.\*, Kirylo, M.\*, & **Martinez, L.** (November, 2023). *Altered sensitivity to cocaine in adolescent spontaneously hypertensive rats, a rodent model of attention-deficit/hyperactivity disorder*. Poster presented at the Faculty for Undergraduate Neuroscience poster session at the Society for Neuroscience Annual Meeting in Washington, DC, USA.
5. Barrett, C.\*, Mathew, S.\* & **Martinez, L.** (April, 2022). *The effect of pregnancy on motivation for cocaine in Sprague-Dawley rats*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.
6. Mathew, S.\*, Sullivan, E.\*, Barrett, C.\* & **Martinez, L.** (April, 2022). *Impact of a ketogenic diet on the reinforcing properties of varying doses of cocaine in young adult Sprague-Dawley rats*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.

7. **Martinez, L.** & Tzianabos, C.\* (November, 2021). *Impact of a KD on Sexual Behavior in Male Sprague-Dawley Rats*. Poster presentation at the Society for Neuroscience Annual Meeting (remote).
8. **Martinez, L.** & Huston, M.\* (January, 2021). *Exposure to a Ketogenic Diet Blocks the Formation of a Conditioned Place Preference for Cocaine in Young Adult Sprague-Dawley Rats*. Poster presented remotely at the Global Connectome Conference sponsored by the Society for Neuroscience.
9. Huston, M.\*, Tzianabos, N.\*, & **Martinez, L.** (February, 2020). *The Effects of a Ketogenic Diet on Conditioned Place Preference for Cocaine in Young Adult Sprague-Dawley Rats*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.
10. Huston, M.\*, Flynn, K.\*, & **Martinez, L.** (October, 2019). *Exposure to a Ketogenic Diet Decreases the Rewarding Effects of Cocaine in Male and Female Sprague-Dawley Rats*. Poster presented at the Faculty for Undergraduate Neuroscience Social held at the Society for Neuroscience Annual Meeting, Chicago, IL, USA.
11. Flynn, K.\*, Arqoub, A.\*, & **Martinez, L.** (October, 2019). *Gestational exposure to a ketogenic diet improves sociability and affect in CD-1 mice*. Poster presented at the Society for Neuroscience Annual Meeting, Chicago, IL, USA.
12. Flynn, K.\*, Arqoub, A.\*, Armentano, J.\*, & **Martinez, L.** (February, 2019). *Gestational exposure to a ketogenic diet improves sociability and affect in CD-1 mice*. Poster presented at the N.E.U.R.O.N. conference in Quinnipiac, CT, USA.
13. **Martinez, L.**, Lees, M.\*, Ruskin, D., & Masino, S. (November, 2018). *A ketogenic diet decreases behavioral responses to cocaine in male and female rats*. Poster presented at the Society for Neuroscience Annual Meeting, San Diego, CA, USA.
14. Arqoub, A.\*, Flynn, K.\*, Armentano, J.\*, and **Martinez, L.** (November, 2018). *Gestational exposure to a ketogenic diet increases sociability & decreases depressive-like behavior in CD-1 mice*. Poster presented at the Faculty for Undergraduate Neuroscience Social held at the Society for Neuroscience Annual Meeting, San Diego, CA, USA.
15. **Martinez, L.** (April, 2018). *Hormonal and Metabolic Regulation of Addiction*. Invited talk given at the Neuroscience Lecture Series, Trinity College, Hartford, CT, USA.
16. Lees, M.\*, Ruskin, D., Masino, M., & **Martinez, L.** (July, 2017). *Effects of the ketogenic diet on behavioral responses to cocaine in rats*. Poster presented at the University of Connecticut Annual Retreat, Hartford, CT, USA.
17. **Martinez, L.**, Peterson, B., & Mermelstein, P. (November, 2015). *Estradiol facilitation of extended access cocaine self-administration in female rats requires activation of mGluR5*. Poster presented at the Society for Neuroscience Annual Meeting, Chicago, IL, USA.
18. Peterson, B., **Martinez, L.**, Leishman, E., Meisel, R., & Mermelstein, P. (November, 2015). *In female rat nucleus accumbens, the endocannabinoid system mediates the effects of estradiol on psychostimulant responses and structural plasticity*. Poster presented at the Society for Neuroscience Annual Meeting, Chicago, IL, USA.

19. **Martinez, L.**, Peterson, B., Meisel, R., & Mermelstein, P. (November, 2014). *Estradiol facilitation of cocaine-induced behaviors in female rats requires activation of mGluR5*. Poster presented at the Society for Neuroscience Annual Meeting, Washington, DC, USA.
20. **Martinez, L.**, Peterson, B., Meisel, R., & Mermelstein, P. (August, 2014). *Estradiol facilitation of cocaine-induced locomotor sensitization in female rats requires activation of mGluR5*. Poster presented at the International Congress of Neuroendocrinology Meeting, Sydney, NSW, Australia.
21. **Martinez, L.**, Peterson, B., Meisel, R., & Mermelstein, P. (April, 2014). *Estradiol facilitation of cocaine-induced locomotor sensitization in female rats requires activation of mGluR5*. Poster presented at the Organization for the Study of Sex Differences Meeting, Minneapolis, MN, USA.
22. **Martinez, L.** & Petrulis, A. (June, 2013). *Endogenous oxytocin preferentially facilitates male odor-induced cFos expression in the bed nucleus of the stria terminalis in female Syrian hamsters*. Poster presented at the Society for Behavioral Neuroendocrinology 17<sup>th</sup> Annual Meeting, Atlanta, GA, USA.
23. **Martinez, L.** (April, 2013). *Neural regulation of sexual solicitation in female Syrian hamsters: Role of oxytocin*. Invited talk given at the Brains and Behavior Annual Retreat, Georgia State University, Atlanta, GA, USA.
24. **Martinez, L.** & Petrulis, A. (October, 2012). *Ventral forebrain responses to sexual odors in female Syrian hamsters: Interactions with the central oxytocin system*. Poster presented at the Society for Neuroscience Annual Meeting, New Orleans, LA, USA.
25. Petrulis, A., Helman, A.\* , Tabbaa, M.\* , & **Martinez, L.** (October, 2012). *Blocking GABA<sub>A</sub> receptors in the bed nucleus of the stria terminalis disrupts sexual odor preference in male Syrian hamsters*. Poster presented at the Society for Neuroscience Annual Meeting, New Orleans, LA, USA.
26. **Martinez, L.** & Petrulis, A. (November, 2011). *The role of the medial preoptic area in vaginal marking and opposite-sex odor preference in female Syrian hamsters*. Poster presented at the Society for Neuroscience Annual Meeting, Washington, DC, USA.
27. **Martinez, L.** & Petrulis, A. (November, 2010). *The role of the posterior bed nucleus of the stria terminalis in vaginal marking and sexual odor preference in female Syrian hamsters*. Poster presented at the Society for Neuroscience Annual Meeting, San Diego, CA, USA.
28. **Martinez, L.** (May, 2010). *Neural regulation of mate solicitation in female Syrian hamsters: Role of oxytocin in the ventral forebrain*. Powerpoint presentation at the Neuroscience Institute Breakfast & Lecture Series, Georgia State University, Atlanta, GA, USA.
29. **Martinez, L.** & Petrulis, A. (June, 2009). *Progesterone inhibits vaginal marking in ovariectomized, estradiol benzoate-primed female Syrian hamsters*. Poster presentation at the 13<sup>th</sup> annual meeting of the Society for Behavioral Neuroendocrinology, East Lansing, MI, USA.
30. **Martinez, L.**, Petrulis, A., & Albers, H.E. (November, 2008). *Endogenous oxytocin in the medial preoptic-anterior hypothalamus facilitates vaginal marking and opposite-sex odor*

*preference in female Syrian hamsters*. Poster presentation at the Society for Neuroscience annual meeting, Washington, DC, USA.

31. **Martinez, L.**, Petrulis, A., & Albers, H.E. (July, 2008). *Oxytocin in the medial preoptic/anterior hypothalamus regulates vaginal marking in female Syrian hamsters*. Poster presentation at the 12<sup>th</sup> annual meeting of the Society for Behavioral Neuroendocrinology, Groningen, the Netherlands.

*\*denotes undergraduate student author*

## **INSTRUCTION**

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NESC 103-01: Adolescence and Drug Use, Fall 2020, Fall 2022  
NESC 201-01: Principles of Neuroscience (Instructor), Spring 2017, 2018, 2019, 2021, 2022, 2023  
NESC 210-01: Neuroendocrinology (Instructor), Spring 2017, 2018, 2019, 2021, 2022, Fall 2022, 2023  
NESC 210-20: Neuroendocrinology Lab (Instructor), Spring 2017, 2018, 2019, 2021, 2022; Fall 2022  
NESC 301-01: Introduction to Neuroscience Methods (Instructor), Fall 2016, 2017, 2018, 2020, 2021, 2023  
NESC 325-01: Hormones and Social Behavior (Instructor), Fall 2016, 2018, 2020; Spring 2023  
NESC/PSYC 364-01: Neuropsychopharmacology (Instructor), Fall 2017, 2021, 2023  
NESC 388-01: Current Issues in Neuroscience, Fall 2018, 2021; Spring 2023  
Data Analysis Workshop (Instructor), Summer 2018  
NSCI 1002: Social Neuroscience – Understanding Others (Instructor), Spring 2016  
NSCI 4151: Social Neuroscience – Understanding Others (Instructor), Spring 2015  
Life Sciences Undergraduate Research Program (Neuroscience Seminar Coordinator), Summer 2014  
PSYC 8420: Psychology Research Statistics II (Graduate Teaching Assistant), Spring 2012  
PSYC 3530: Advanced Research Design and Analysis (Laboratory Instructor), Fall 2011  
PSYC 3530: Advanced Research Design and Analysis (Laboratory Instructor), Spring 2011  
PSYC 3530: Advanced Research Design and Analysis (Laboratory Instructor), Spring 2010  
PSYC 8410: Psychology Research Statistics I (Graduate Teaching Assistant), Fall 2009  
PSYC 8420: Psychology Research Statistics II (Graduate Teaching Assistant), Spring 2009  
PSY 351: Biopsychology (Undergraduate Teaching Assistant), Spring 2006

## **MENTORING**

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Faculty mentor to one Neuroscience Program undergraduate thesis student, 2021-present  
Faculty mentor to four Neuroscience Program undergraduate research assistants, 2022-present  
Faculty mentor to three Neuroscience Program undergraduate research assistants, 2021-2022  
Faculty mentor to one Biology Department undergraduate research assistant, 2021  
Faculty mentor to two Neuroscience Program undergraduate research assistants, 2020-present  
Faculty mentor to one Chemistry Department undergraduate research assistant, 2019-2021  
Faculty mentor to one Neuroscience Program thesis student, 2019-2020  
Faculty mentor to two Neuroscience Program undergraduate research assistants, 2019-2020  
Faculty mentor to Interdisciplinary Science Program student, 2018-2021  
Faculty mentor to three Neuroscience Program undergraduate research assistants, 2018-2019  
Faculty mentor to one Neuroscience Program thesis student, 2017-2019  
Faculty mentor to one Biology Department undergraduate research assistant, 2017  
Faculty mentor to two Neuroscience Program undergraduate research assistants, 2017-2018

Faculty mentor to two Neuroscience Program thesis students, 2016-2018  
Postdoctoral mentor to one University of Minnesota College of Veterinary Medicine Summer Scholar, 2016  
Postdoctoral mentor to one Undergraduate Research Opportunity Program (UROP) Scholar, 2015-2016  
Postdoctoral mentor to one UROP Scholar, 2013-2016  
Postdoctoral mentor to one UROP Scholar, 2015  
Postdoctoral mentor to one McNair Scholar, 2014  
Graduate student mentor to one McNair Scholar, 2012-2013  
Graduate student mentor to two undergraduate research volunteers, 2012-2013  
Graduate student mentor to two University Honors Scholars, 2011-2013  
Graduate student mentor to one undergraduate research volunteer, 2011-2012  
Graduate student mentor to one undergraduate research volunteer, 2010-2011  
Graduate student mentor to one undergraduate research volunteer, 2007-2009  
Graduate student mentor to two University Honors Scholars, 2007-2009

## **INSTITUTIONAL SERVICE**

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### **Trinity College**

Neuroscience Program Director, 2023-present  
New Science Building Project Champion, 2023-present  
New Faculty Orientation (instructor), 2021-present  
Academic Affairs Committee, 2021-2023, 2024-present  
Jury Pool, 2020  
Faculty Research Committee, 2019  
Mellon Foundation Inclusive Teaching Grant Advisory Board, 2018-2019  
Institutional Animal Care and Use Committee: member 2016-2019, 2020-2023, 2024-present;  
chair 2022-2023  
Neuroscience Program Coordinating Committee, 2016-present

### **Department of Neuroscience, University of Minnesota**

Local Organizing Committee, Organization for the Study of Sex Differences 2014 Meeting, April, 2014

### **College of Arts and Sciences, Georgia State University**

Student Representative, GSU Life Sciences External Review Board Team Luncheon, August 28, 2012

### **Neuroscience Institute, Georgia State University**

Student Representative, Executive Committee, 2011-2012  
Co-Organizer, Neuroscience Institute Breakfast & Lecture Series, 2010-2011

### **Department of Psychology, Georgia State University**

Student Representative, PSYC 3530 Redesign Committee, 2011-2012  
Student Coordinator, Graduate Student Recruitment Weekend, 2009  
Program Representative, Graduate Association of Student Psychologists, 2007-2008

### **Center for Behavioral Neuroscience, Atlanta, GA**

Georgia State University Representative, CBN Graduate Student Association, 2008-2009  
Volunteer, Annual Neuroscience Exposition, 2007-2009

## **PROFESSIONAL SERVICE**

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### **Committee Memberships**

Professional Development Committee, Society for Neuroscience, 2020-2023

### **Ad-Hoc Reviewer**

NSF, Physiological Mechanisms and Biomechanics Program

Behavioral Neuroscience (journal)

Behavioural Brain Research (journal)

## **PROFESSIONAL SOCIETY MEMBERSHIP (CURRENT/PAST)**

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Society for Neuroscience (current)

Faculty for Undergraduate Neuroscience (current)

Society for Behavioral Neuroendocrinology (past)

Organization for the Study of Sex Differences (past)