

CURRICULUM VITAE

Luis A. Martinez
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Neuroscience Program
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EDUCATION

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

Degree: Master of Science in Neuroscience (2006-2011)
Institution: Georgia State University, Atlanta, GA
Advisors: Aras Petrulis (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

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

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

1. Tzianabos, C.*, Chouinard, G.*, & **Martinez, L.A.** Alterations to the copulatory sequence observed in male Sprague-Dawley rats maintained on a ketogenic diet. *Manuscript in preparation*.
2. Arqoub, A.M.S.*, Flynn, K.G.*, & **Martinez, L.A.** Gestational exposure to a ketogenic diet increases sociability in CD-1 mice. *Behavioral Neuroscience* (2020), 134(4): <https://doi.org/10.1037/bne0000368>
3. **Martinez, L.A.**, Lees, M.E.*, Ruskin, D.N., & Masino, S.A. A ketogenic diet diminishes behavioral responses to cocaine in young adult male and female rats. *Neuropharmacology* (2019), 149: 27-34.
4. **Martinez, L.A.**, Gross, K.S., Himmler, B.T., Emmitt, N.L., Peterson, B.M., Gross, K.S., Zlebnik, N.E., Olive, M.F., Carroll, M.E., Meisel, R.L., & Mermelstein, P.G. Estradiol facilitation of cocaine self-administration in female rats requires activation of mGluR5. *eNeuro* (2016), 3(5): ENEURO.0140-16.2016.
5. Gross, K.S., Bradner, D.N., **Martinez, L.A.**, Olive, M.F., Meisel, R.L., & Mermelstein, P.G. 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.M., **Martinez, L.A.**, Meisel, R.L., & Mermelstein, P.G. 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.A.**, Peterson, B.M., Meisel, R.L., & Mermelstein, P.G. 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.A.**, & Carruth, L.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.A.**, Levy, M.J., & 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.A.** & 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.A.** & 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.A.**, 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.S., Wersinger, S.R., Caldwell, H.K., **Martinez, L.A.**, Gold, P., & Hu, S.B. 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

1. Barrett, C.* , Mathew, S.* & **Martinez, L. A.** (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.
2. Mathew, S.* , Sullivan, E.* , Barrett, C.* & **Martinez, L. A.** (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.
3. **Martinez, L.A.** & Tzianabos, C. L.* (November, 2021). *Impact of a KD on Sexual Behavior in Male Sprague-Dawley Rats*. Poster presentation at the Society for Neuroscience Annual Meeting (remote).
4. **Martinez, L. A.** & Huston, M. 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.
5. Huston, M. M.* , Tzianabos, N. L.* , & **Martinez, L. A.** (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.
6. 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.
7. Flynn, K.G.* , Arqoub, A.M.S.* , & **Martinez, L.A.** (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.

8. Flynn, K.G.*, Arqoub, A.M.S.*, Armentano, J.R.*, & **Martinez, L.A.** (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.
9. **Martinez, L.A.**, Lees, M.E.*, Ruskin, D.N., & Masino, S.A. (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.
10. Arqoub, A.M.S.*, Flynn, K.G.*, Armentano, J.R.*, and **Martinez, L.A.** (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.
11. **Martinez, L.A.** (April, 2018). *Hormonal and Metabolic Regulation of Addiction*. Invited talk given at the Neuroscience Lecture Series, Trinity College, Hartford, CT.
12. Lees, M.E.*, Ruskin, D.N., Masino, M.A., & **Martinez, L.A.** (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.
13. **Martinez, L.A.**, Peterson, B.M., & Mermelstein, P.G. (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.
14. Peterson, B.M., **Martinez, L.A.**, Leishman, E., Meisel, R.L., & Mermelstein, P.G. (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.
15. **Martinez, L.A.**, Peterson, B.M., Meisel, R.L., & Mermelstein, P.G. (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.
16. **Martinez, L.A.**, Peterson, B.M., Meisel, R.L., & Mermelstein, P.G. (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.
17. **Martinez, L.A.**, Peterson, B.M., Meisel, R.L., & Mermelstein, P.G. (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.
18. **Martinez, L.A.** & 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 17th Annual Meeting, Atlanta, GA, USA.

19. **Martinez, L.A.** (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.
20. **Martinez, L.A.** & 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.
21. Petrulis, A., Helman, A.*, Tabbaa, M.*, & **Martinez, L.** (October, 2012). *Blocking GABA_A 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.
22. **Martinez, L.A.** & 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.
23. **Martinez, L.A.** & 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.
24. **Martinez, L.A.** (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.
25. **Martinez, L.A.** & Petrulis, A. (June, 2009). *Progesterone inhibits vaginal marking in ovariectomized, estradiol benzoate-primed female Syrian hamsters*. Poster presentation at the 13th annual meeting of the Society for Behavioral Neuroendocrinology, East Lansing, MI, USA.
26. **Martinez, L.A.**, Petrulis, A., & Albers, 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.
27. **Martinez, L.A.**, Petrulis, A., & Albers, E. (July, 2008). *Oxytocin in the medial preoptic/anterior hypothalamus regulates vaginal marking in female Syrian hamsters*. Poster presentation at the 12th annual meeting of the Society for Behavioral Neuroendocrinology, Groningen, the Netherlands.

*denotes undergraduate student author

INSTRUCTION

NESC 103-90: Adolescence and Drug Use, Fall 2020, Fall 2022
 NESC 201-01: Principles of Neuroscience (Instructor), Spring 2017, 2018, 2019, 2021, 2022
 NESC 210-01: Neuroendocrinology (Instructor), Spring 2017, 2018, 2019, 2021, 2022
 NESC 210-20: Neuroendocrinology Lab (Instructor), Spring 2017, 2018, 2019, 2021, 2022
 NESC 301-01: Introduction to Neuroscience Methods (Instructor), Fall 2016, 2017, 2018, 2020, 2021

NESC 325-01: Hormones and Social Behavior (Instructor), Fall 2016, 2018, 2020
NESC/PSYC 364-01: Neuropsychopharmacology (Instructor), Fall 2017, 2021
NESC 388-01: Current Issues in Neuroscience, Fall 2018, 2021
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

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

Trinity College

New Faculty Orientation (instructor), 2021-present
Academic Affairs Committee, 2021-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 and 2020-present; chair
2022-present
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

Committee Memberships

Professional Development Committee, Society for Neuroscience, 2020-Present

Ad-Hoc Reviewer

NSF, Physiological Mechanisms and Biomechanics Program
Behavioral Neuroscience (journal)

PROFESSIONAL SOCIETY MEMBERSHIP (CURRENT/PAST)

Society for Neuroscience
Faculty for Undergraduate Neuroscience
Society for Behavioral Neuroendocrinology
Organization for the Study of Sex Differences