

Sarah Marie Lyle, M.S.
Office: 438 Psychology Building
Email: sml32210@uga.edu

Education

Masters of Science in Experimental Psychology

Nova Southeastern University, Ft. Lauderdale Florida

May 2017

- Thesis: Examining the U-Shaped Curve of Dopamine's Effects on Neurobehavioral Task Performance: The Interaction Between Acute Stress and the COMT Gene
- Advisor: Dr. Jaime Tartar, Ph. D

Bachelor of Arts in Psychology

Ohio Northern University, Ada Ohio

May 2013

- Advisor: Dr. Phillip Zoladz, Ph. D

Research Interests

Behavioral Neuroscience
Behavioral Genetics
Developmental Psychology
Learning and Memory
Emotional Stress
Trauma Induced Changes in Brain and Behavior

Technical Expertise

Molecular Techniques: DNA Isolation, PCR, Genotyping, Immunostaining, and Immunoassay (ELISA, EIA)

Statistical Packages: SPSS, R

Experimental Protocols: Cold Pressor Test (CPT), Trier Social Stress Test for Groups (TSST-G)

Psychological Testing: Trained to administer and score various neuropsychological tests (e.g. STAI, CES-D, PTSD Scale, PSS)

I-Pad Based Testing: Joggle Neuropsychological Research Platform, NIH Toolbox for neurological and behavioral function

Other: Licensed Phlebotomist, Actigraphy

Peer-Reviewed Journal Publications or In Preparation

- Zoladz, P.R., Kalchik, A.E., Hoffman, M.M., Aufdenkampe, R.L., **Lyle, S.M.**, Peters, D.M., Brown, C.M., Cadle, C.E., Scharf, A.R., Dailey, A.M., Wolters, N.E., Talbot, J.N., & Rorabaugh, B.R. (2014). ADRA2B deletion variant selectively predicts stress-induced enhancement of long-term memory in females. *Psychoneuroendocrinology*, *48*, 111-122.
- Zoladz, P.R., Warnecke, A.J., Woelke, S.A., Burke, H.M., Frigo, R.M., Pisansky, J.M., **Lyle, S.M.**, Talbot, J.N. (2013). Pre-learning stress that is temporally removed from acquisition exerts sex-specific effects on long-term memory. *Neurobiology of Learning and Memory*, *100*, 77-87.
- Hill, L.D., Lorenzetti, M., **Lyle, S.M.**, Fins, A.I., Tartar, J.L. COMT polymorphisms associates with psychological health in women. In Preparation.
- **Lyle, S.M.**, Gobin, K., & Tartar, J.L. A novel relationship: COMT allele status predictor of sleep duration. In Preparation.
- **Lyle, S.M.**, Tatin, X.F., & Tartar, J.L. COMT polymorphisms on Joggle cognitive performance in a nonstress condition. In Preparation

- **Lyle, S.M.**, Banks, J., Munoz, J., & Tartar, J.L. The interaction between acute stress and the COMT gene on cognitive functioning. Master's Thesis In Preparation.

Book Chapters

- Zoladz, P.R., Kalchik, A.E., Cadle, C.E., & **Lyle, S.M.** (2014). Amygdala-induced modulation of cognitive brain structures underlies stress-induced alterations of learning and memory: Importance of stressor timing and sex differences. In A.Costa & E. Villalba (Eds.), *Horizons in Neuroscience Research (Vol. 14) (pp 1-40)*. Hauppauge, NY: Nova Science Publishers.

Poster Presentations

- Davidson, E., May, R., **Lyle, S.M.**, Tartar, J.L., Lopez, J.V., & Smith, R.P. (April, 2017). Examining the stress-gut microbiome interface in a human population. Presented at the Undergraduate Student Symposium, Ft. Lauderdale, Florida.
- **Lyle, S.M.**, Tatin, X.F., Hill, L.D., Lorenzetti, M.S., Tartar, A., Tartar, J.L. (November, 2016). The association between the COMT Val158Met polymorphism and psychological and cognitive performance. Presented at the Forty-Sixth Annual Meeting for the Society for Neuroscience, San Diego, California. Abstract published in Society for Neuroscience Abstracts, 46, online.
- Zoladz, P.R., Kalchik, A.E., Cadle, C. E., Peters, D.M., Hoffman, M.M., Aufdenkampe, R.L., **Lyle, S.M.**, Brown, C.M., Scharf, A.R., Dailey, A.M., Wolters, N.E., Talbot, J.N., & Rorabaugh, B.R. (November, 2014). ADRA2B deletion variant selectively predicts stress-induced enhancement of long-term memory in females. Presented at the Forty-Fourth Annual Meeting of the Society for Neuroscience, Washington, D.C. Abstract published in Society for Neuroscience Abstracts, 44, 644.02.
- **Lyle, S.M.**, Adelman, S., Stripe, S., & Wareham, D., (April, 2011). Fear Appeals and Social Influence on the Perception of Illegal Adderall Use. Presented at the Ohio Northern University Student Research Colloquium, Ada, Ohio.

Research/Laboratory Experience

Graduate Research Assistant

Fall 2015-Spring 2017

- University: Nova Southeastern University
- Supervisor: Dr. Jaime Tartar
- Focus: Stress on psychological health and cognition (i.e. genetics, physiological response, microbiome)
- Responsibilities:
 - Trained, managed, and supervised undergraduate researchers
 - Collected reliable and precise data to support scientific investigations
 - Constructed IRB approval forms
 - Manuscript preparation

Laboratory Assistant for Introduction to Neuroscience

Fall 2016

- University: Nova Southeastern University
- Professor: Dr. James Munoz
- Focus: Teaching basic lab skills and conduct neuroscience experiments
- Responsibilities:
 - Create and administer lab activities that coincide with weekly lecture
 - Teach Lab Protocol portion of weekly lab
 - Set-up laboratory prior to scheduled lab time
 - Guide students through creating and running their own original neuroscience based experiments

Laboratory Assistant for Research Methods in Behavioral Neuroscience and Data Analysis

Spring 2016

- University: Nova Southeastern University
- Professor: Dr. James Munoz
- Focus: Tracing Neurogenesis

- Responsibilities/Techniques:
 - Set-up laboratory prior to scheduled lab time
 - Provided feedback for papers and quizzes
 - Attended all lectures and labs, providing remedial assistance to students

Undergraduate Student Research Assistant

Fall 2012-Spring 2013

- University: Ohio Northern University
- Supervisor: Dr. Phillip Zoladz
- Focus: Stress on emotional memory processing
- Responsibilities:
 - Conducted 5-7 research sessions a week to collect qualitative and quantitative stress research data
 - Analyzed data using SPSS
 - Assisted in journal proposal writing
 - Attended weekly lab meetings to ensure validity across all researchers

Principal Investigator on Class Research Project

Fall 2011

- University: Ohio Northern University
- Supervisor: Dr. Kristie Payment
- Focus: Fear Appeals and Social Influence on behavioral change
- Responsibilities:
 - Served as Principal Investigator research project with a group of 3 other undergraduate students
 - Conducted an intense literature review on research involving fear appeals and social influence
 - Completed IRB application that was approved
 - Material preparation, data collection and analysis using SPSS
 - Complete APA style journal proposal

Academic Experience

Teaching Assistant for Behavioral Genetics

Fall 2015

- University: Nova Southeastern University
- Professor: Dr. Jaime Tartar
- Responsibilities/Techniques:
 - Graded and provided feedback on assignments such as quizzes and weekly article reviews
 - Delivered remediation to undergraduate students who had not grasped the course content

Teaching Assistant for Experimental Psychology

Spring 2012 and Spring 2013

- University: Ohio Northern University
- Professor: Dr. Phillip Zoladz & Dr. Megan Kraynock
- Responsibilities/Techniques:
 - Introduced undergraduate students to behavioral research through direct experience.
 - Assisted eight students in designing, conducting, and analyzing their own original research study
 - Reviewed and provided feedback for multiple drafts of APA style research papers.

College of Arts and Sciences Psychology Tutor

2012-2013

- University: Ohio Northern University
- Responsibilities/Techniques
 - Reviewed relevant psychology information to undergraduate students enrolled in Introductory Psychology courses
 - Worked with students to improve their understanding of general psychology information

Internship Experience

Summer Treatment Program Counselor, Cleveland Clinic, Cleveland Ohio

Summer 2012

- Served as counselor in program designed to help children and families understand and manage ADHD symptoms
- Identified, labeled, and monitored 28 different frequency/interval, positive/negative behaviors during an intensive day treatment program to gather data on the child's progress and recommendations for future treatment

- Observed lead counselors create individualized treatment programs that addressed each child's behavioral, emotional, and learning difficulties

Grants and Funding Secured

- Presidential Faculty Research and Development Grant**, Nova Southeastern University 2016
- Examining the Stress-Gut Microbiome Interface: A Systems Biology Approach
 - Role: Co-I Amount: \$14,970.00
- PANSGA Professional Development Grant**, Nova Southeastern University 2016
- Neuroscience 2016
 - Role: PI Amount: \$1,000.00

Invited Lectures and Presentations

- The association between the COMT Val158Met polymorphism and emotion processing and cognitive performance (Fall, 2016). Presented in the Graduate Research Series at Nova Southeastern University, Ft. Lauderdale Florida.
- Acute Stress, COMT, and Cognitive Performance (Spring 2016). Presented in the Graduate Research Series at Nova Southeastern University, Ft. Lauderdale Florida.
- Brain Control of Movement: 2-part series (Fall 2015). Presented in Introduction to Neuroscience at Nova Southeastern University, Ft. Lauderdale Florida.
- The Vision and Auditory Pathways – A mini lecture (Spring 2015). Presented in Introduction to Neuroscience at Nova Southeastern University, Ft. Lauderdale Florida.

Professional Affiliations

Society for Neuroscience
 American Psychological Association
 Psi Chi

Honors, Awards, Scholarships, and Fellowships

<i>The Priscilla Tyson Leadership Award</i> ; City Year Columbus	2015
<i>Certificate of Honor and Recognition</i> ; Columbus City Council	2015
<i>Outstanding Psychology Student</i> ; Ohio Northern University	2012
<i>Dean's List</i> ; Ohio Northern University	2012 & 2013

Professional Trainings Received

<i>The Neurosequential Model in Education</i> ; Dr. B. D. Perry's Child Trauma Academy; Livingston Elementary	Fall 2014
<i>Cognitive Development and Growth Mindset</i> ; City Year Columbus	Fall 2014
<i>Social Emotional Learning and Executive Functioning</i> ; City Year Columbus	Fall 2014
<i>The Impact of Trauma on Student Development</i> ; City Year Columbus	Fall 2013
<i>Youth Development 101</i> ; City Year Columbus	Fall 2013

Supervised Undergraduate Students

Kevin Douglass	Bailey McDonald
Stephanie Hernandez	Kendall Jordan
Akshay Naraine	Edward Zacka
Gina Contreras	Reaghan May
Andrew Gonedes	

Community Service/Volunteer Experience

- Americorps Team Leader and Corps Member, City Year, Columbus Ohio** July 2013-May 2015
- Volunteered full time as a tutor, mentor, and role model in an urban elementary and middle school to resolve the dropout crisis through improving attendance, behavior, and course work in math and English
 - Lead a team of seven corps members through the City Year experience through observation and feedback sessions, biweekly check-in meetings, and general coaching, while performing the duties of a Corps Member
 - Gained significant leadership development skills, specifically in the areas of leading a team composed of people from diverse backgrounds, project planning and management, working with children and youth, civic knowledge, public speaking and communication, and community assessment
- Be The Change, Nova Southeastern University** 2015-2016
- Participated in monthly service projects bettering the South Florida community
- Service Coordinator, Ohio Northern University** 2011-2013
- Coordinated and lead student service trips and projects
 - Assisted in planning and organizing weekly chapel worship
- Student Service Project Coordinator, Restore, Ada Ohio** 2010-2011
- Connected students attending the University with the surrounding community
 - Organized and oversaw quarterly community service projects in an elderly, low-income housing development

Committees

- Internal Interview Board* – Livingston Elementary School
Events Planning Committee – City Year Columbus
Training Committee – City Year Columbus

Skills

Communication

Team Collaboration and Leadership

Executes Projects with Excellence

Advanced Critical Thinking Skills, Problem Solving, and Decision Making

Attentive to Time Schedules

Flexible and Willing to Take on a Variety of Tasks

Microsoft Office Word, PowerPoint, and Excel

APA Style Writing

Campus Leadership:

- Vice President of Psi Sigma (Psychology Club)
- Hall Counsel Representative
- Intercollegiate Varsity Swim Team
- Assistant Stage Manager – Ohio Northern Theatre
- Biology Student Association Member