
Michael W. Lewis
Curriculum Vitae
Summer 2020

Professional Contact Information:

McLean Hospital / Harvard Medical School
115 Mill Street
Belmont, MA 02478
mwlewis@partners.org

Personal Contact Information:

5515 Stearns Hill Road
Waltham, MA 02451
609-313-1254
mlewis1@vt.edu
mw15134@gmail.com

EDUCATION

2017-2020 **Virginia Polytechnic and State University, Blacksburg, VA**
Doctor of Philosophy in Biological Psychology
Advisor: Russell T. Jones, PhD

Dissertation: *Genetic Risk Factors for PTSD: A Gene-Set Analysis of Neurotransmitter Receptors*; Defended May 9th, 2020

2015-2017 **Virginia Polytechnic and State University, Blacksburg, VA**
Master of Science in Psychology
Advisor: Russell T. Jones, PhD

Thesis: *Fear Conditioning as an Intermediate Phenotype: An RDoC Inspired Methodological Analysis*; Defended April 20th, 2018.

2013-2015 **George Washington University, Washington, DC**
Master of Public Health
Thesis Chair: Dr. Paula M. Lantz

Thesis: *Exploring the Relationship Between Physical Activity and Health Care Utilization: A Regression Analysis of the 2012 Medical Expenditures Panel Survey*; Defended May 10th, 2015.

2008-2011 **The Pennsylvania State University, State College, PA**
Bachelor of Arts in Philosophy

Fall 2007 **Saint Joseph's University, Philadelphia, PA**

HONORS AND AWARDS

2020 **Travel Award** (\$500, Virginia Tech Department of Psychology)
2019 **Travel Fund Award** (\$280, Virginia Tech Graduate Student Assembly)
2019 **Travel Award** (\$500, Virginia Tech Department of Psychology)
2018 **Travel Award** (\$500, Virginia Tech Department of Psychology)
2017 **Travel Award** (\$500, Virginia Tech Department of Psychology)

- 2017** **Teacher of the Month, December** (chosen by National Residence Hall Honorary, Virginia Tech)
- 2016** **Finalist, Excellent Student Poster Award** (International Society for Traumatic Stress Studies)
- 2015** **Delta Omega** (public health honor society, top 10% of graduating class academically in addition to outstanding extracurricular achievement)
- 2007** **Sait Joseph's University Academic Merit Scholarship** (\$17,000/year, partial tuition and fees, St. Joseph's University)

PROFESSIONAL AFFILIATIONS

- 2015-Present** **International Society for Traumatic Stress Studies**, Student Member
- 2015-Present** **Delta Omega Public Health Honor Society**, Member
- 2012-Present** **American Mensa**, Member

GRANT FUNDING

July 2018-Present

Role: Co-Investigator

Title: Long-Term Neurobehavioral and Psychosocial Impacts of a Mass Shooting

Principal Investigator: Russell T. Jones, Professor, Virginia Tech Department of Psychology

Agency: Virginia Tech Dean's Discretionary Fund (DDF; \$20,000)

This funding was provided in order to supplement previously acquired funding from the Adaptive Brain and Behavior (ABB) Destination Fund and to extend the study to include the sequencing of two candidate genes (SLC6A2, FKBP5). The initial ABB study is described below.

July 2017-Present

Role: Co-Investigator

Title: Long-Term Neurobehavioral and Psychosocial Impacts of a Mass Shooting

Principal Investigator: Bruce H. Friedman, Professor, Virginia Tech Department of Psychology

Agency: Virginia Tech Adaptive Brain and Behavior Destination Area Fund (ABB; \$10,000)

This funding was provided in order to study the long-term effects of trauma on fear learning, using a sample of former Virginia Tech students who were exposed to the mass shootings which occurred on April 16, 2007. A transdisciplinary team of scholars will collaborate to gauge the effects of psychological trauma on associative fear learning, cognitive functioning, autonomic nervous system activity, and cortisol levels.

PEER-REVIEWED PUBLICATIONS

Lewis, M.W., Jones, R.T., & Davis, M.T. (2020). Exploring the Impact of Trauma Type and Extent of Exposure on Posttraumatic Alterations in 5-HT1A Expression. *Translational Psychiatry*

Purtle, J. & **Lewis, M.** (2017) Mapping “Trauma-Informed” Legislative Proposals in U.S. Congress. *Administration & Policy in Mental Health*

Sullivan, C. P., Smith, A. J., **Lewis, M.**, & Jones, R. T. (2016). Network Analysis of PTSD Symptoms Following Mass Violence. *Psychological Trauma: Theory, Research, Practice, and Policy*

SUBMITTED MANUSCRIPTS

Sullivan, C.S., Tankersley, A., Tickle, B., **Lewis, M.W.**, & Jones, R.T. (2020). *Posttraumatic Stress Disorder Symptoms after a Mass Shooting: Utilizing Item Response Theory to Identify Critical Symptom Patterns*. Manuscript submitted for publication

Huskey, A., Sullivan, C.P., Kissel, H., **Lewis, M.W.**, & Lack, C.W. (2020). *Remember the Ladies: Sex Moderates the Relationship Between Undiagnosed Somatic Symptoms and PTSD Symptom Clusters*. Manuscript submitted for publication

MANUSCRIPTS IN PROGRESS

Lewis, M.W., Friedman, B.H., & Jones, R.T. (2020). *Heterogeneity in Fear Acquisition: A Latent Class Growth Analysis*.

ABSTRACTS/PRESENTATIONS

Lewis, M.W., Huskey, A.H., Friedman, B.H., & Jones, R.T. (2019). *Trauma Exposure is Associated with Physiological Startle, but not Self-Report Startle*. Poster presented at 35th International Society for Traumatic Stress Studies Annual Meeting, Boston, MA.

Nackley, B., **Lewis, M.W.**, Faunce, A., Huskey, A. & Friedman, B.H. (2019). *What’s Blood Got to do With It? Cardiac Response to Startle and Fear Conditioning in Blood Phobia*. Poster presented at the 59th annual meeting of the Society for Psychophysiological Research, Washington, D.C. Abstract published in *Psychophysiology*, 56(Suppl. 1), S119.

Kissel, H., Faunce, A., **Lewis, M.W.**, & Friedman, B.H. (2019). *The Heart Can Be Unpredictable: Examining EMG and Cardiac Startle Responses During Fear Conditioning*. Poster presented at the 59th annual meeting of the Society for Psychophysiological Research, Washington, D.C. Abstract published in *Psychophysiology*, 56(Suppl. 1), S113.

Dike, J., Faunce, A., **Lewis, M.W.**, Friedman, B.H., & Jones, R.T. (2019). *Complex PTSD Symptom Effects and Cardiac Response to Startle Stimuli During Fear Conditioning*.

Poster presented at the 59th annual meeting of the Society for Psychophysiological Research, Washington, D.C. Abstract published in *Psychophysiology*, 56(Suppl. 1), S86.

Faunce, A.J., **Lewis, M.W.**, Jones, R.T., & Friedman, B.H. (2019). *Phobic Fear Does Not Predict Sensitization to Startle Stimuli During Habituation*. Poster presented at the 59th annual meeting of the Society for Psychophysiological Research, Washington, D.C. Abstract published in *Psychophysiology*, 56(Suppl. 1), S51.

Lewis, M.W., Jones, R.T., Huskey, H., Reyes, M., Van Orden, C., & Friedman, B.H. (2018). *Heterogeneity in Fear Acquisition: A Latent Class Growth Analysis*. Poster presented at 34th International Society for Traumatic Stress Studies Annual Meeting, Washington, D.C.

Booth, J., **Lewis, M.W.**, Huskey, A.H., & Jones, R.T. (2018). *Posttraumatic Stress, Heart Rate Variability, and Fear Conditioning: Methodological Considerations*. Poster presented at 34th International Society for Traumatic Stress Studies Annual Meeting, Washington, D.C.

Reyes, M., **Lewis, M.W.**, Jones, R.T., Huskey, A.H. (2018). *Impact of Posttraumatic Stress and Interoception on Heart Rate Variability*. Accepted for Presentation at the 34th International Society for Traumatic Stress Studies Annual Meeting, Washington, D.C.

Lewis, M.W., Jones, R.T., Huskey, H., Reyes, M., Van Orden, C., & Friedman, B.H. (2018). *Latent Class Growth Analysis, Electromyography, and Heterogeneity in Fear Learning: Methodological Considerations and Theoretical Implications*. Poster presented at the 58th annual meeting of the Society for Psychophysiological Research, Quebec City, Quebec, Canada. Abstract published in *Psychophysiology*, 55 (Suppl. 1), S56.

Nackley, B.B., **Lewis, M.W.**, Huskey, A., & Friedman, B.H. (2018). *Is high-frequency heart rate variability always a marker for adaptive responding?* Poster presented at the 58th Annual meeting of the Society for Psychophysiological Research, Quebec City, Quebec, Canada. Abstract published in *Psychophysiology*, 55 (Suppl. 1), S131.

Kissel, H., Huskey, A., & **Lewis, M.W.** (2018). *Worry, Cumulative Trauma, and Very Low Frequency HRV Predict Somatic Symptoms: Support for the GUTS Model*. Poster presented at the 58th annual meeting of the Society for Psychophysiological Research, Quebec City, Quebec, Canada. Abstract published in *Psychophysiology*, 55 (Suppl. 1), S98.

Huskey, A., Van Orden, C., **Lewis, M.W.**, Mohsen, M., Johannsen, P., & Friedman, B.H. (2018). *Affect Dysregulation Predicts Blunted Startle Response*. Poster presented at the 58th Annual meeting of the Society for Psychophysiological Research, Quebec City, Quebec, Canada. Abstract published in *Psychophysiology*, 55 (Suppl. 1), S100.

Lewis, M. (2017). *Mentions of "Trauma-Informed" in Current State Laws: A Content Analysis*. Poster presented at the 33rd International Society for Traumatic Stress Studies Annual Meeting, Chicago, Ill.

- Lewis, M.** (2017). *Mentions of “Trauma-Informed” in Current State Laws: A Content Analysis*. Poster presented at the 33rd International Society for Traumatic Stress Studies Annual Meeting, Chicago, Ill.
- Lewis, M., Sullivan, C., Reyes, M., & Jones, R.T.** (2017). *Firefighter’s Motivation, Positive Events, and PTG*. Poster presented at the 33rd International Society for Traumatic Stress Studies Annual Meeting, Chicago, Ill.
- Lewis, M. & Purtle, J.** (2016). *Mentions of “Trauma-Informed” in Legislative Proposals Introduced before U.S. Congress: A Content Analysis*. Poster presented at the 32nd International Society for Traumatic Stress Studies Annual Meeting, Dallas, Tx.
- Lewis, M., Sullivan, C., & Jones, R.T.** (2016). *Firefighter’s Motivation, Positive Events, and PTSD*. Poster presented at the 32nd International Society for Traumatic Stress Studies Annual Meeting, Dallas, Tx.
- Sullivan, C.S., Lewis, M., & Jones, R.T.** (2016). *Firefighters, Trauma, and Social Support: Public Health Implications from a Network Analysis*. Poster presented at the 32nd International Society for Traumatic Stress Studies Annual Meeting, Dallas, Tx.

GRADUATE RESEARCH EXPERIENCE

Fall 2017-Present

Lab/ Study: Psychophysiology of Stress and Trauma (POST)

Role: Co-Investigator

Supervisors: Russell T. Jones, PhD & Bruce H. Friedman, PhD

Collaborators: Margaret T. Davis, PhD, J. Tina Savla, PhD, Andrew J. Smith, PhD, Alisa Huskey, MA, Janey Dike, MA, Brittany Nackley, MS, MBA, Heather Kissel, BS

Setting: Virginia Polytechnic and State University, Blacksburg VA

Projects:

- *Exploring Latent Heterogeneity in Fear Learning*. (Primary Investigator; supervised by Dr. Jones and Dr. Friedman)
- *Long-term Neurobehavioral and Psychosocial Adaptations Following Trauma Exposure*. (Co-Investigator; supervised by Dr. Jones and Dr. Friedman)
- *Sex Moderates the Relationship Between Undiagnosed Somatic Symptoms and PTSD Symptom Clusters* (Co-Investigator; supervised by Dr. Jones)

Duties:

- As primary investigator, designed and ran a study investigating psychophysiological responses to a novel fear learning paradigm. Designed theoretical aspects of fear learning paradigm, coded all stimulus delivery using DMDX software, collected and cleaned psychophysiological data (EMG, EKG, and respiration). Data were collected using Biopac and cleaned using Acqknowledge.
- Conducted data analysis for one first-author manuscript and three first-author posters using Mplus, SPSS, and R. Analyses included latent class growth analysis, ANOVA, and multiple linear regression.

- Drafted one full manuscript for submission on project for which I am listed as primary investigator. Assisted in drafting and editing an additional manuscript as a co-investigator.
- As co-investigator, helped conceptualize and plan submission, study design, and project plan for internally funded collaborative project. Collaborated in writing three submissions for internal funding, two of which were funded for a total of \$30,000.
- As primary investigator, trained, supervised, and mentored a team of eight undergraduate assistants during the fall semester of 2017 during data collection. In addition to training and supervision, mentorship included at least one individual meeting with each mentee to discuss their personal career goals.
- During the spring semester of 2018, mentored two undergraduates in order to help guide them in all phases of research conceptualization, basic data analysis, and abstract writing. This led to two successful poster submissions to the International Society for Traumatic Stress Studies annual meeting.
- Collaborated with colleagues in submitting and presenting 10 additional posters utilizing data from the project on which I was primary investigator, including three as first author.
- Drafted IRB for project for which I am listed as primary investigator and drafted multiple sections of the IRB for projects for which I am listed as co-investigator.

Fall 2015-Present

Lab: Stress and Coping Lab

Role: Graduate Researcher

Supervisor: Russell T. Jones, PhD

Collaborators: Margaret T. Davis, PhD, Connor S. Sullivan, PhD, Amelia Tankersley, MS, Janey Dike, MA, Brady Tickle, BA

Setting: Virginia Polytechnic Institute and State University, Blacksburg VA

Projects:

- *Trauma Exposure and Gene Expression: Exploring the Impact of Trauma Type and Extent of Exposure on Posttraumatic Alterations in 5-HT1A Expression* (primary investigator; supervised by Dr. Jones and Dr. Davis)
- *Psychological Aftermath of 4/16 Shootings* (co-investigator; supervised by Dr. Jones)
- *Longitudinal Psychological Outcomes of Fire Trauma Exposure* (co-investigator; supervised by Dr. Jones)

Duties:

- Conducted a comprehensive review of literature across modalities (preclinical work, postmortem, positron emission tomography, pharmacological, etc) examining the relationship between 5HT1A and transdiagnostic trauma-induced psychiatric phenotypes. Synthesized the literature to draw conclusions concerning the differential impacts of various forms of trauma on the expression of 5-HT1A and trauma-induced psychopathology.
- Analyzed data using R
- Assisted in interpreting and conceptualizing statistical findings for projects for which I am listed as co-investigator
- Assisted in drafting and editing of manuscripts for publication

- Assisted in recruiting strategic partners and drafting a grant application which was not successful in attaining funding
- Collaborated with colleagues to present findings at international conferences and assisted in writing manuscripts for publication.

Spring 2016-Fall 2017

Lab: Center for Population Health and Community Impact

Role: Collaborator

Supervisor: Jonathan Purtle, DrPH

Setting: Drexel University, Philadelphia, Pennsylvania

Projects:

- *Investigation of trends in trauma-informed policy-making* (Co-Investigator)

Duties:

- Qualitatively coded legislative data to create analyzable datasets tracking trends in the creation of trauma-informed bills and laws at both the federal and state level
- Collaborated with colleagues to present findings at national conferences and assisted in producing published manuscript
- Conducted data analyses using SPSS
- Assisted in drafting and editing of one manuscript for publication

OTHER RELEVANT PROFESSIONAL EXPERIENCE

- Summer 2017** **Psychology Practicum Student**, Salem Veterans Affairs Medical Center (Observed and co-facilitated group therapy for substance abuse using the “Seeking Safety” manual).
- 2014-2015** **Policy Research Assistant**, Menges Group (edited grant proposal for health care agency, cleaned pharmaceutical data sets, helped with descriptive analyses in excel, helped prepare academic presentation).
- 2013-2014** **Policy Research and Advocacy Assistant**, National Bone Health Alliance (presented data-driven advocacy pitches to congressional and presidential staffers, drafted one-page policy briefs based on scientific data, helped prepare scientific presentations in support of policy reform in the interest of advancing public health, helped with scientific literature reviews in order to advance policy positions)

SUPERVISED CLINICAL EXPERIENCE

Fall 2015-Spring 2017

Title: Graduate Clinician, Psychological Services Center

Setting: Virginia Tech Psychological Services Center, Blacksburg VA
(caseload of 3-4 clients per week; 2 hours per week of supervision)

Supervisors: George A. Clum, PhD; Lee Cooper, PhD; Russell T. Jones, PhD

Duties:

- Provided individual therapy services in a community outpatient clinic to adults of varying degrees of impairment

- Disorders and difficulties treated included PTSD, MDD, GAD, SAD, autism, and complex bereavement
- Utilized a variety of intervention techniques including cognitive-behavioral, acceptance and commitment, and interpersonal therapies
- Performed a total of six full clinical assessments on child and adult clients.
- Participated in weekly individual and group supervision meetings for case conceptualization, didactic training, and treatment planning

TEACHING EXPERIENCE

August 2017-Present

Title: Graduate Teaching Assistant
Class: Intro to Neuroscience of Behavior
Supervisor: Russell T. Jones, PhD
Setting: Department of Psychology, Virginia Tech
(20 hours per week)

Duties:

- Instructor of record for one section of 60 students
- Prepare and present lectures and discussion activities for three 50 minute classes per week
- Create, administer, and grade exams, projects, and quizzes, maintain office hours, and offer review sessions before exams

September, 2019

Title: Invited Guest Lecture, Intro to Neuroscience of Behavior
Presentation: *Atomic and Molecular Mechanisms of Resting Potential, Action Potential, and Neural Communication*
Setting: Virginia Tech, Blacksburg, VA

August 2015-May 2017

Title: Graduate Teaching Assistant
Class: Introduction to Psychology
Setting: Department of Psychology, Virginia Tech
(20 hours per week)

Supervisor: Russell T. Jones, PhD

Duties:

- Prepared and presented lectures and discussion activities for three weekly recitation sections of 40 students each
- Created, administered, and graded quizzes and essays, maintained office hours, and offered review sessions before exams

April, 2017

Title: Invited Guest Lecture, Nervous Systems and Behavior
Presentation: *Clinical Applications of Fear Learning*

Setting: Virginia Tech, Blacksburg, VA

December, 2017

Title: **Invited Guest Lecture**, Psychological Trauma Senior Seminar

Presentation: *Public Mental Health, Policy, and Trauma*

Setting: Virginia Tech, Blacksburg VA

July, 2016

Title: **Adjunct Instructor**

Class: **MCAT Preparation**

Supervisor: Laura M. Wiley

Setting: Carillion Institute Summer Scholar Diversity Program, Virginia Tech

Duties:

- Prepared and presented lectures and practice activities for MCAT preparation with a focus on critical analysis and reasoning skills

January 2012 – January 2013

Title: **GRE and SAT Prep Instructor**

Class: **Kaplan Test Preparation**

Supervisor: Druscilla Ciatti

Setting: Philadelphia, Pennsylvania Metropolitan Region / Washington, DC Metropolitan Region

Duties:

- Prepared and presented lectures and practice activities for GRE and SAT preparation for classes of 10-30 students each
- Prepared and conducted individual tutoring sessions
- Provided free consultative services and college application advising

TEACHING EVALUATION DATA:

At Virginia Tech, the Student's Perceptions of Teaching (SPOT) evaluation is administered to all students. SPOT includes 13 individual items, including a single item rating of overall teacher effectiveness. Overall effectiveness scores for averages across relevant sections of Introduction to Psychology in the 2015-2016 school year and 2016-2017 school year are provided. Overall effectiveness scores for averages across relevant sections of Introduction to Neuroscience of Behavior in the 2018-2019 school year, 2017-2018 school year, and fall 2019 are also provided.

Time Period	Average Student Rating for M.W. Lewis	Course Taught
2015-2016 School Year	5.41 / 6.00	Intro Psychology
2016-2017 School Year	5.88 / 6.00	Intro Psychology

2017-2018 School Year	5.26 / 6.00	Intro Neuroscience of Behavior
2018-2019 School Year	5.34 / 6.00	Intro Neuroscience of Behavior
2019-2020 School Year	5.58 / 6.00	Intro Neuroscience of Behavior

SERVICE AND OUTREACH EXPERIENCE

- April, 2018** **Presenter, *Long-Term Neurobehavioral and Psychosocial Adaptations Following the Virginia Tech Shootings: A Ten-Year Follow-up***
Adaptive Brain and Behavior Workshop, Virginia Tech
- February, 2018** **Presenter, *Individual differences in Aversive Conditioning: Substantive and Methodological Considerations***
Biological Psychology Brown Bag, Virginia Tech
- March, 2017** **Presenter, *Recognizing and Responding to Post-Traumatic Stress in the Classroom***
Blacksburg High School, Blacksburg, VA

REFERENCES

Russell T. Jones, PhD

Professor

Department of Psychology

109 Williams Hall

Virginia Tech, Blacksburg, VA 24061

(540) 231-5934

rtjones@vt.edu

Margaret T. Davis, PhD

Assistant Professor

School of Medicine

2 Church Street South, Suite 314

New Haven, CT, 06519

Cell: (434) 989-4418

Office: (203) 737-7066

margaret.t.davis@yale.edu

Bruce H. Friedman, PhD

Professor

Department of Psychology

109 Williams Hall

Virginia Tech, Blacksburg, VA 24061

(540) 231-9611

bhfriedm@vt.edu

Isabelle M. Rosso, PhD

Associate Professor

Department of Psychology

115 Mill Street

McLean Hospital, Belmont, MA 02478

(617) 855-2607

irosso@partners.org