Emma Taylor Margolis

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y @emma_margolis

Doston, MA

EDUCATION

Northeastern University, Boston, MA

Expected 2027

Ph.D., Psychology

Advisor: Laurel Gabard-Durnam, PhD

University of Maryland, College Park, MD

Aug 2016 - May 2020

B.S., Psychology, Minor in Art History, Cum laude

Gemstone Honors Program; *Honors Thesis*: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Honor Societies: Phi Beta Kappa, Psi Chi, Nu Rho Psi

RESEARCH EXPERIENCE

Graduate Research Assistant

Aug 2022 – Current

Plasticity in Neurodevelopment Lab, Northeastern University (PI: Laurel Gabard-Durnam, PhD)

- **PINE SEED:** Longitudinal study investigating how the environment shapes socio-emotional development across the first two years of life. (Jan 2023 Current)
- PINE SEEDLING: Proposed and designed the first infant MRI study (PINE SEEDLING) at the Northeastern University Biomedical Imaging Center to investigate how the early environment contributes to structural and functional brain development over infancy. (Jan 2023 – Current)
- **Khula LEAP:** A collaborative, multi-site, multi-national research study studying the development of executive function across infancy internationally using multimodal methods. (Aug 2022 Current)

Project Coordinator

June 2020 - May 2022

Attachment & Biobehavioral Catch-Up Lab, University of Delaware (PI: Mary Dozier, PhD)

Modified Attachment & Biobehavioral Catch-Up Project: A randomized controlled trial (RCT) of
Modified Attachment & Biobehavioral Catch-Up (mABC), a clinical behavioral intervention designed to
enhance attachment and parental sensitivity for new mothers receiving medication for opioid-use disorder.

Undergraduate Research Assistant, Origins of Infant Temperament Project

May 2017 - May 2020

Child Development Lab, University of Maryland, College Park (PI: Nathan Fox, PhD)

• Origins of Infant Temperament Project: A longitudinal infant project characterizing the relation between infant socioemotional development (i.e., infant temperament, behavioral inhibition) and brain development.

Team Director, Team FEELS: Tactile <u>Fee</u>dback to Improve <u>Less Invasive Surgeries</u> April 2017 - May 2020 *Gemstone Honors Program,* **University of Maryland, College Park (Team Advisor: Bao Yang, PhD)**

• Team FEELS: Tactile Feedback to Improve Less Invasive Surgeries: Student-led research team through the Gemstone Honors Program to create a a feedback mechanism transmitting tactile information from the surgical field to an operating surgeon to improve transparency in minimally invasive robotic-assisted surgery.

Summer Intramural Research Training Award, Temperament Over Time Study

May 2018 - July 2018

Section on Development and Affective Neuroscience, National Institute of Mental Health (PI: Daniel Pine, MD)

 Temperament Over Time Study: Longitudinal study of socioemotional development from infancy through early adulthood.

PUBLICATIONS

- Labella, M. H., Benito-Gomez, M., **Margolis, E. T.**, Zhang, J., Dozier, M. (2023). Telehealth Delivery of Modified Attachment and Biobehavioral Catch-Up: Feasibility, Acceptability, and Lessons Learned. *Attachment & Human Development*. 25(2), 240-253. https://doi.org/10.1080/14616734.2023.2179577
- Tabachnick, A., Sellers, T., Margolis, E., Labella, M., Neff, D., Crowell, S., Raby, K., Saenz, C., Conradt, E., Dozier. M. (2022). Adapting Psychophysiological Data Collection for COVID-19: The "Virtual Assessment" Model. *Infant Mental Health Journal*, 43(1), 185-197. https://doi.org/10.1002/imhj.21954

MANUSCRIPTS UNDER REVIEW

- Margolis, E. T. & Gabard-Durnam, L. J. (under review for invited Special Issue: Developmental plasticity) Prenatal Influences on Postnatal Sensitive and Critical Period Mechanisms. Infancy.
- Margolis, E. T., Davel, L., Bourke, N. J., Bosco, C., Zieff, M. R., Monachino, A. D., Mazubane, T., Williams, S. R., Miles, M., Jacobs, C. A., Williams, S., Bradford, L., Knipe, C., Madi, Z., Methola, B., Mhlakwaphalwa, T., Mlandu, N., Nkubungu, K., Goolam Nabi, Z., Pan, T., Samuels, R., Pini, N., Klepac-Ceraj, V., Fifer, W. P., Alexander, D. C., Jones, D. K., Williams, S. C. R., Amso, D., Donald, K. A., and Gabard-Durnam, L. J. (revise resubmit for Special Issue: Prenatal influences across the life course) Longitudinal Effects of Prenatal Alcohol Exposure on Visual Functional and Structural Neurodevelopment over Infancy. Developmental Psychology.

CONFERENCE POSTERS

- Margolis, E. T., Davel, L., Bourke, N. J., Bosco, C., Zieff, M. R., Monachino, A. D., Mazubane, T., Williams, S. R., Miles, M., Jacobs, C. A., Williams, S., Bradford, L., Knipe, C., Madi, Z., Methola, B., Mhlakwaphalwa, T., Mlandu, N., Nkubungu, K., Goolam Nabi, Z., Pan, T., Samuels, R., Pini, N., Klepac-Ceraj, V., Fifer, W. P., Alexander, D. C., Jones, D. K., Williams, S. C. R., Amso, D., Donald, K. A., and Gabard-Durnam, L. J. Longitudinal Effects of Prenatal Alcohol Exposure on Visual Neurodevelopment over Infancy. Poster presented at Flux: The Society for Developmental Cognitive Neuroscience and the Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG) Annual Conference. Santa Rosa, CA.
- Margolis, E. T., Davel, L., Bourke, N. J., Bosco, C., Zieff, M. R. ... Pini, N., Klepac-Ceraj, V., Fifer, W. P., Alexander, D. C., Jones, D. K., Williams, S. C. R., Amso, D., Donald, K. A., and Gabard-Durnam, L. J. (July 2023)

 Longitudinal Effects of Prenatal Alcohol Exposure on Visual Neurodevelopment over Infancy. Poster presented at the Annual Meeting of the International Society for Developmental Psychobiology. Utrecht, Netherlands.
- Zieff, M. R., Monachino, A. D., Margolis, E. T., Donald, K. A., Gabard-Durnam, L. J. (November 2022) Early exposure to intimate partner violence and salience network functional connectivity in South African infants over the first postnatal year. Poster presented at the Annual Meeting of the International Society for Developmental Psychobiology. San Diego, CA.
- Korom, M., Margolis, E. T., Asencio, B., Howell, B., Dozier, M., (September 2022) Early Parenting Intervention Effects on Amygdala Volume in Infants Exposed to Opioids In-utero: A Randomized Clinical Trial. Poster presented at the Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG) Annual Conference. Paris, France.
- Margolis, E., Ravi, S., Bracy, M., Pine, D., Fox, N., Filippi, C. (November 2020) Early Risk Factors for Anxiety and Infant Brain Morphometry. Poster presented at the Occasional Temperament Conference. Virtual conference due to COVID-19.
- Margolis, E., Fopenawoh, A., Schneider, L., Leibenluft, E., Pine, D., Fox, N., Filippi, C. (June 2018) *Approach/Avoidance Responses to Novelty in Infancy as an Early Predictor for Behavioral Inhibition.* Poster presented at the International Congress of Infant Studies. Philadelphia, PA.
- Phillips, D., **Margolis, E.**, Fopenawoh, A., Pacheco, J., Gold, A., Leibenluft, E., Fox, N., Pine, D., Filippi, C. (April 2018) *The Precursors of Mood and Anxiety Disorders: Behavioral Reactivity and Approach-Avoidance Tendencies in Infants.*Poster presented at the Anxiety and Depression Association of America. Washington D.C.

INVITED PRESENTATIONS

Conducting Research with Women with Opioid-Use Disorder

May 2021

• Invited presentation to the Howell Lab at Virginia Polytechnic Institute and State University

HONORS AND AWARDS

Gemstone Citizen and Leader of the Year

May 2020

Gemstone Honors Program, University of Maryland, College Park

• Awarded to a senior Gemstone student who has demonstrated exemplary leadership within the program.

Taylor and Brandon Cole Student Experience Endowment

Jan 2020

College of Behavioral and Social Sciences, University of Maryland, College Park

• Awarded to finance experiential learning opportunities for an undergraduate psychology student.

Maryland Summer Scholars Award

May 2019

Maryland Center for Undergraduate Research, University of Maryland, College Park

• Awarded \$3000 to conduct independent research at the Child Development Lab (PI: Nathan Fox, PhD) investigating the effect of maternal anxiety and infant reactivity on brain morphometry in infancy.

Summer Intramural Research Training Award

May 2018 – July 2018

Section on Development and Affective Neuroscience, National Institute of Mental Health

• Awarded summer funding to conduct research investigating the effect of temperament on brain development longitudinally (PI: Daniel Pine, MD).

President's Scholarship

Aug 2016 – May 2020

Undergraduate Admissions, University of Maryland, College Park

• Four-year merit scholarship awarded to outstanding students upon application to the University of Maryland.

TEACHING EXPERIENCE

Graduate Teaching Assistant at Northeastern University

Sep 2023 – Current

PSYC 2320: Statistics in Psychological Research (Instructor: Grayson Kimball, PhD)

Undergraduate Teaching Assistant at University of Maryland, College Park

Aug 2019 - Dec 2019

PSYC 336: Psychology of Women (Instructor: Monica Kearney, PhD)

• Guest Lectures: Gender-Related Identity Development, Cycles of Intimate Partner Violence

Other Teaching Presentations:

- Presentation on *Demystifying Graduate Programs in Psychology* to Northeastern University undergraduate psychology students as part of the Graduate Mentorship Program speaker series
- Presentation on Grad School Application Process to PINE Lab undergraduate students
- Lectures on Infant MRI and Importance of Attachment & Caregiving Behaviors in Developmental Research to PINE Lab undergraduate students
- Invited presentation to Filippi Lab at NYU Langone on Making and Presenting An Academic Poster

SCIENCE OUTREACH & EDUCATIONAL RESOURCES

Undergraduate Journal Club Syllabus: Infant Magnetic Resonance Imaging (MRI)

- Syllabus Link: <u>www.tinyurl.com/infantmri</u>
- Led journal club for undergraduates interested in infant MRI & developed publicly-available syllabus for other
 infant imaging researchers covering MRI basics, acquisition demands for infant MRI, study design, and types of
 sequences (i.e., structural, DTI/MWF, MRS, fMRI).

Video: Using Electroencephalography (EEG) to Learn About the Brain

- Video Link: <u>www.tinvurl.com/learnabouteeg</u>
- Created an educational video aimed at middle and high school students to learn about how researchers use electroencephalography (EEG) to better understand the brain.

SCIENCE OUTREACH/SERVICE TO SCIENTIFIC COMMUNITY

STEM Professional Pen Pal, Letters to a Pre-Scientist

Sep 2023 - Current

• Serving as a Pen Pal for a 5th to 10th grade "Pre-Scientist" from an under-resourced U.S. community to showcase the diversity of STEM professionals and in STEM careers as well as humanize STEM professionals by discussing higher education pathways, STEM career journeys, and overcoming obstacles.

Northeastern Psychology Graduate Student Association

• Support and Resources Committee Member

- Sep 2023 Current
- O Developing and circulating written resources for graduate students including those on applying for department/outside funding, changing advisors, etc. Also facilitating upload of resources from graduate student community members including undergraduate syllabi for TAs, graduate course syllabi, and previous funding applications by establishing a shared Google Drive.
- o Advocated for allergy-friendly food options at departmental events.
- Social Committee Member

Sep 2023 – Current

Planning monthly graduate student social events to facilitate inter- and intra-cohort bonding and promote work-life balance.

Feedback Coordinator for Neuroscience Seminar Series

Sep 2023 - Current

Coordinating return of constructive feedback for speakers at student-led initiative providing speaking
opportunities to trainees in neuroscience at Northeastern University. Providing speakers with detailed notes
from feedback provided in-person and designed online feedback form for attendees who prefer providing
written or anonymized feedback.

Northeastern University Community Liaisons for Education Using STEM

Sep 2022 – Current

• Coordinating and volunteering at field trips and science expos for K-12 students to learn about neuroscience through interactive demonstrations and educational activities.

Co-Coordinator for the Center for Cognitive and Brain Health Speaker Series

Jan 2023 - Current

Coordinating Fall semester and coordinated successful Spring semester speaker series for faculty, staff, and
graduate students at the Northeastern Center for Cognitive and Brain Health. Solicited faculty nominations,
invited ten faculty-nominated speakers from universities and industry across the United States and abroad;
organized in-person and hybrid options for speakers and attendees.

MENTORING EXPERIENCE

XXX, PINE SEEDLING Project Undergraduate Research Assistant	May 2023 - Current
XXX, PINE SEEDLING Project Undergraduate Research Assistant	May 2023 – Current
XXX, Graduate Student Mentorship Program Undergraduate Mentee	April 2023 – Current
XXX, University of Delaware Undergraduate Summer Scholar	July 2021 – May 2022
XXX, University of Delaware Undergraduate Summer Scholar	July 2021

VOLUNTEER EXPERIENCE

Kesem National Aug 2022

 Served as Camp Advisor for the Indiana University and Massachusetts Institute of Technology chapters of Camp Kesem, a non-profit devoted to serving children through and beyond a parent's cancer.

Supervised ~40 undergraduate student volunteers, ~105 campers, and ~8 health professionals at 2 weeks of a
free sleepaway camp for children affected by a parent's cancer. Provided oversight related to safety, compliance
of Kesem standards, and crisis management.

Kesem at the University of Maryland

Sep 2017 - May 2020

- Founding member of the University of Maryland chapter of Camp Kesem; supported creation of the chapter through outreach and community events.
- Personally raised \$4,066 for camp funding, enough to support 4 campers for a full week at sleepaway camp.
- Held positions as Teen Leadership Program Unit Leader (Nov 2019 Aug 2020), Counselor (Nov 2017 Nov 2019), and Operations Co-Coordinator (Sep 2017 Aug 2018).

Gemstone Leadership Council, Gemstone Honors Program at UMD

Sep 2016 – May 2020

- Led student leaders through a major transition to form a centralized Gemstone Leadership Council from
 multiple independent Gemstone student organizations to better facilitate initiatives that foster bonding within
 the Gemstone community and support the four-year research experience.
- Held positions as Co-President (May 2018 May 2020), Vice President of Underclass Cohort Relations (May 2017 May 2018), Orientation/Camp Leader (Aug 2017; Awarded Camp Leader of the Year), Event Planning Co-Chair (Sep 2016 May 2017)

TRAINING IN ADVANCED METHODS

Longitudinal Modeling Flux Workshop (Instructor: Ethan McCormick, PhD)	Sep 2023
Introduction to Structural Equation Modeling (Instructor: David DeSteno, PhD)	May 2023 – June 2023
Human Electroencephalography (Instructor: Laurel Gabard-Durnam, PhD)	Jan 2023 – Apr 2023

SKILLS

Psychophysiological Data Collection: Electroencephalography (EEG; infant/adult), Magnetic Resonance Imaging (MRI; infant), Autonomic Nervous System (ANS; infant/adult)

Computer Software: Expert: Qualtrics, Datavyu; Proficient: R, RedCap, iBEAT, SPSS; Basic: UNIX, FreeSurfer, Matlab

PROFESSIONAL SOCIETIES

Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG), Flux: The Society for Developmental Cognitive Neuroscience, International Society for Developmental Psychobiology