

JACOB NUDELMAN

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EDUCATION

Bachelor of Science, Psychology

Graduation: May 2019

Minor, Neuroscience

Cumulative GPA: 3.62

University of Maryland, College Park

College of Behavioral and Social Sciences

RESEARCH EXPERIENCE

Maryland Psychiatric Research Center

Catonsville, MD

University of Maryland, School of Medicine

Primary Supervisor: James Waltz, PhD

Senior Clinical Research Assistant

Effective January 2023

Clinical Research Assistant

September 2019-December 2022

- Primary coordinator of recruiting, scheduling, screening, and data collection for schizophrenia patients, patient relatives, and healthy control participants on an NIMH-funded R01 study examining the neuropsychological etiology of psychotic disorders using fMRI.
- Primary training and supervision of research staff in Dr. Waltz's lab, including a team of undergraduate research assistants, and training of incoming staff research assistants.
- Performs analysis of study data using descriptive statistics in SPSS, JASP, and R statistical software. Assists in developing, submitting, and providing content for papers and presentations. Analyzes and processes study data including fMRI preprocessing and correlation, group, and regression statistical analyses for behavioral and neuroimaging data.
- Coordinates paperwork for IRB amendments and IRB continuing review.
- Led an independent writing project with Dr. Waltz, involving data analysis and writing and revising a scientific paper to be submitted for publication in the coming months, also resulting in two poster presentations. Also led a literature review and writing of an accompanying review paper, that has been submitted for publication.

University of Maryland, College Park

College Park, MD

Primary Supervisor: Matthew Roesch, PhD

June 2018-May 2019

Undergraduate Research Assistant

- Assisted with running of experiments in a translational neuroscience project examining social cognition and reward processing in rodents using a behavioral paradigm and single-cell electrophysiology recording equipment.

- Engaged in handling of study animals (rats) including feeding and weighing, data collection from behavioral tasks and electrophysiology, and attaching cables to electrodes to allow for recording of neural data.
- Contributed to other tasks such as data analysis using MatLab, building electrodes, and observation of electrode implantation surgeries.
- Co-led a poster presentation and co-authored a published scientific paper detailing research done during my time as a research assistant.

PERFORMANCE MEMBERSHIPS

Baltimore Improv Group January 2021-Present

- Participated in weekly classes, ranging from beginner to advanced, that teach skills of comedy improvisation including thinking quickly on one's feet, being prepared to respond to any situation that might arise, and collaborating well with other improvisers.
- Performed in showcases in front of live audiences to demonstrate skills learned in various classes.

University of Maryland Pep Band November 2015-May 2017, October 2018-May 2019

Member; Traveling Band Member

- Played at 2-3 basketball games per week for an average of 18,000 spectators per game.
- Played at events around the University of Maryland Campus.
- Specially selected to travel with the basketball team to tournaments.

Mighty Sound of Maryland Marching Band August 2015-May 2017

Member

- Practiced with 250+ members eight to fourteen hours a week to prepare for performances at football games and events around the University of Maryland campus.
- Learned to coordinate skills such as marching, memorizing and playing music for each game, and learning coordinates for new shows each week.
- Performed for an average of 45,000 spectators per week at football games.

PROFESSIONAL MEMBERSHIPS

- Society for Research in Psychopathology, Associate Member September 2022-Present

AWARDS AND HONORS

- Silver Award, UMD Psychology Undergraduate Research Fair April 2019
- Psi Chi International Honor Society April 2017-May 2019
- Primannum Honor Society October 2015-May 2019
- Dean's List Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2018, Spring 2019

SKILLS

Computer: MS Word, MS Excel, MS Power Point, MS Access, Zoom, Qualtrics, LabChart, AcqKnowledge

Statistical Analysis: R, JASP, SPSS

Coding (Basic Proficiency): R, Python, MatLab, Unix, Linux

Clinical Interviews: Structured Clinical Interview for DSM-5 (SCID-5), SCID-5 for Personality Disorders (SCID-5 PD), Brief Psychiatric Rating Scale (BPRS), Scale for the Assessment of Negative Symptoms (SANS), Clinical Assessment Interview for Negative Symptoms (CAINS), Young Mania Rating Scale (YMRS), Level of Function Scale (LOF), Calgary Depression Scale (CDS)

Neuroimaging: structural MRI, resting-state MRI, functional MRI, AFNI, fMRI Prep (preprocessing), XNAT, BIDS formatting

Neuropsychological Assessment: MATRICS Battery, WTAR

Behavioral Assessment: Ecological momentary assessment (Paco, M-Path), behavioral tasks in MRI (E-Prime)

Physiological Assessment: Salivary cortisol (collection and analysis), electrodermal activity (using BIOPAC, AcqKnowledge), measuring vitals, medical and medication history, urine collection and analysis (medical urinalysis, drug testing, and pregnancy testing)

Regulatory: Cicero, IRB modifications, maintaining enrollment binders

Animal Behavior: Med Associates, MedPC

Electrophysiology: Plexon

Certifications: Animal Handler Certification (Rodents, 2018), CITI Training (2019, renewed 2022), HIPAA Training (2019, renewed 2022), Basic Life Support Certification (2021)

Other: Use of NDA and RDoC databases, literature review

RELEVANT COURSEWORK

Calculus I, Statistical Methods in Psychology, Research Methods in Psychology (+ Lab), Molecular Biology (+ Lab), Organismal Biology, Genetics (+ Lab), Anatomy and Physiology (+ Lab), General Chemistry (+Lab), Biological Basis of Behavior, Cognition, Adult Psychopathology, Data Science for Psychology and Neuroscience, Neurosciences Seminar, Animal Behavior, Hormones and Behavior, Introduction to fMRI, Neurobiology Lab, Neuroethology, Neuroplasticity (Graduate Level Seminar)

POSTERS AND PRESENTATIONS

Nudelman, J., Xu, Z., Frank, M., Gold, J., Waltz, J. (2022, September). *Saliency network activation predicts severity of psychotic symptoms in schizophrenia* [Poster presentation]. Society for Research in Psychopathology, Philadelphia, PA

Nudelman, J., Xu, Z., Frank, M., Gold, J., Waltz, J. (2022, April). *Saliency network activation predicts severity of psychotic symptoms in schizophrenia* [Poster presentation]. UMB Psychiatry Research Day, Baltimore, MD

Nudelman, J., Sciarillo X., Schneider, K., Roesch, M. (2019, April). *Investigating the role of anterior cingulate cortex (ACC) in social cognition and learning* [Poster presentation]. UMD Psychology Undergraduate Research Fair, College Park, MD*

**Winner of the “Silver Award” for second place poster out of 40 presented, chosen by a team of University of Maryland Psychology Faculty*

PUBLICATIONS

Nudelman, J., Xu, Z., Frank, M., Gold, J., Waltz, J. (2022). *Saliency network activation predicts severity of psychotic symptoms in schizophrenia*. Manuscript in preparation.

Nudelman, J. L., Waltz, J.A. (2022). *Acute and Lifetime Stress and Psychotic illness: The Roles of Reward and Saliency Networks*. Manuscript submitted for publication.

Schneider, K. N., Sciarillo, X. A., **Nudelman, J. L.,** Cheer, J. F., & Roesch, M. R. (2020, August 6). *Anterior cingulate cortex signals attention in a social paradigm that manipulates reward and shock*. *Current Biology*.