SANJANA MURTHY, B.S.

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CURRICULUM VITAE

EDUCATION

PURDUE UNIVERSITY | 2022

B.S. Brain and Behavioral Sciences

Senior Thesis: Ethnic Disparities in Adjudicated Adolescent Depression as a Function of Support Networks

NSF LSAMP Honors Scholar | Purdue Excellence in Instruction | TEDxPurdueU Executive Board

SELECTED AWARDS & SCHOLARSHIPS

- 2023 NextGen Psychology Scholar, University of Minnesota
- 2021 Distinction in Research Award (\$100), Purdue University
- 2019 NSF LSAMP Scholar (\$6500), Purdue University
- 2018 Distinction in Biomedical Sciences, PLTW

TRAININGS & CERTIFICATIONS

Professional Development:

Diversity, Equity, and Inclusion Statement Training | Phlebotomy trained | Secondary MRI Operator trained |Trained to administer WASI-II, D-KEFS, NIH Toolbox, CAPE

Statistical: MATLAB | R | Statistical Package for Social Sciences (IBM SPSS)

Computer: NetStation | E-prime | Electronic Medical Record (EMR) | REDCap

RESEARCH EXPERIENCE

ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI | Clinical Research Coordinator

Waters Lab, Center for Advanced Circuit Therapeutics (C-ACT) 2023 - Present | *Advisor*: Allison Waters, Ph.D.

- Managing study identifying electrophysiological biomarkers to optimize DBS for TRD, including IRB approval management, participant recruitment and retention, and EEG data collection.
- Leading development of transcranial electric stimulation for enhancement of deep sleep in Parkinson's disease pilot study protocol, including developing procedure, IRB protocol study form, consent forms, recruitment material.
- Managing data collection during deep brain stimulation surgery for OCD using EEG.

COLUMBIA UNIVERSITY | Research Associate

Early Neuroimmune, Neuroimaging, and Neuropsychology (Early N3) Lab, New York State Psychiatric Institute (NYSPI) 2022 - 2023 | *Advisor*: Marisa Spann, Ph.D., MPH

- Managed R01-funded study assessing self-regulatory deficits and early childhood brain/behavior outcomes, including IRB approval management, participant recruitment and retention, and data collection.
- Conducted prenatal sessions with second and third trimester mothers involving cognitive screening, fetal ultrasounds, and blood collection/processing.
- Conducted behavioral sessions with 4, 14, and 24 month old infants, and assisting in adult/infant MRIs, including data quality checks, scheduling, and infant preparation.

PURDUE UNIVERSITY | Research Assistant

Psychophysiological Analysis of Cognition, Emotion, and Reward (PACER) Lab 2022 | *Advisor:* Daniel Foti, Ph.D.

- Examined neural components of psychosis using MRI and EEG/ERP.
- Assisted in developing remote EEG kits for children with Angelman's Syndrome.

PURDUE UNIVERSITY | Research Assistant

Adjustment and Cultural Transition (ACT) Lab 2019 - 2022 | *Advisor*: David Rollock, Ph.D.

- Designed and executed independent project exploring social support and onset of depression in adjudicated adolescents.
- Presented independent work at MPA 2020, APS 2020, and PUSRS 2020, 2021.

PURDUE UNIVERSITY | Research Assistant

Social Cognition of Social Justice (SCSJ) Lab 2018 - 2019 | *Advisor*: Erin Hennes, Ph.D.

- Designed and managed study focusing on intergroup relationships, performed literature reviews, data collection, and data entry.
- Presented work at Purdue University 2019 Undergrad Research Symposium.

INVITED TALKS AND SYMPOSIA

- [6] **Murthy, S.** (2023, November). Rapid Antidepressant Effect of Ketamine on Interoceptive Processing. Nash Family Center for Advanced Circuit Therapeutics Center-Wide Journal Club at Mount Sinai West, New York, NY.
- [5] **Murthy, S.** (2022, December). Career Perspectives Panel. Invited panel discussion for Louis Stokes Alliance for Minority Participation Program at Purdue University, West Lafayette, IN.
- [4] **Murthy, S.** (2022, May). Social Determinants of Health and Ethnic Disparities in Depression. End of Semester Meeting at Purdue University, West Lafayette, IN.
- [3] **Murthy, S.** & Rollock, D. (2021, November). Ethnic Disparities in Depressive Symptoms as a Function of Social Support Networks. Purdue Undergraduate Fall Research Expo, West Lafayette, IN.
- [2] Murthy, S. & Rollock, D. (2021, May). Depression in Adjudicated Adolescents and type of support network from close adults. Purdue University Spring Research Symposium, West Lafayette, IN. Awarded Distinction by College of Health and Human Sciences, Purdue University.
- [1] **Murthy, S.** (2021, April). Scientific Writing and Organization. Invited guest lecture for SACNAS at Purdue University, West Lafayette, IN.

CONFERENCE POSTERS

- [11] Kim, D., O'Neill, S., Murthy, S., Waters, A., Palmese, C. (2024, March). Behavioral health characteristics of pre-surgical Focused Ultrasound and Deep Brain Stimulation candidates. Submitted to Movement Disorders Society (MDS 2024), Philadelphia, PA.
- [10] Kim, D., O'Neill, S., **Murthy, S.**, Waters, A., Palmese, C. (2024, March). Behavior Medicine perspectives in pre-DBS patients with ET and PD. Submitted to Movement Disorders Society (MDS 2024), Philadelphia, PA.
- [9] Dellegge, M., **Murthy, S**., Waters, A. (2024, March). Neuromodulation to Enhance Deep Sleep in Parkinson's Disease. To be presented at Friedman Brain Institute Neuroscience Retreat (FBI 2024), New York, New York.
- [8] Overton, J., Xu, E., Murthy, S., Nunez, L., Pitts, S., Mayberg, H., Figee, M., Jimenez-Shahed, J., Saez, I., Panov, F., Waters, A. (2024, March). Brain-Heart-Body Connections in Mental Health: Intracranial Electrophysiological Measures of Interoceptive Processing in the Insula. To be presented at Friedman Brain Institute Neuroscience Retreat (FBI 2024), New York, New York.
- [7] **Murthy, S.**, Dahill-Fuchel, J., Xu, E., Overton, J., Murrough, J., Fremont, R., Waters, A. (2024, March). Cortical Interoceptive Processing and the Rapid Antidepressant Effect of Ketamine. To be presented at Friedman Brain Institute Neuroscience Retreat (FBI 2024), New York, New York.
- [6] Turner, E., **Murthy, S.**, Bastos, R., Kodaiarasi, K., Noumair, M., Phalen, P. (2022, November). Contact with mental illness and stigmatization of voice hearing. Presented at the Annual Congress of the Schizophrenia International Research Society (SIRS 2023), Toronto, Canada.
- [5] Aydin, E., Rodriguez, R., Monk, C., **Murthy, S.**, Peterson, B., Scheinost, D., Spann, M. (2022, November). Insights into the complex immune environment during pregnancy and association with the developing human connectome. Presented at the Association for Clinical and Translational Science (ACTS 2023), Washington, DC.
- [4] **Murthy, S.,** Osnaya, A., & Rollock, D. (2020, May). Depth of social support networks vs breadth of social support networks in predicting depression among adjudicated adolescents. Presented at Association for Psychological Science.

- [3] **Murthy, S.,** Osnaya, A., & Rollock, D. (2020, April). Negative emotionality does not predict future substance abuse among adjudicated adolescents. Presented at the Annual Meeting of the Midwestern Psychological Association.
- [2] **Murthy, S.,** Dang, L., & Hennes, E. (2019, August). Perceptions of loyalty and competence within system challenging new entrants. Presented at Purdue Undergraduate Summer Research Symposium, West Lafayette, IN.
- [1] **Murthy, S.,** Dang, L., & Hennes, E. (2019, June). Receptiveness of policy suggestion from new entrants vs incumbents. Presented at Purdue University Undergraduate Research Expo, West Lafayette, IN.

PUBLICATIONS

*Manuscript in preparation

- [2*] Overton, J., Xu, E., **Murthy, S.**, Pitts, S., Waters, A. (In preparation). Brain-Heart-Body Connections in Mental Health: Intracranial Electrophysiological Measures of Interoceptive Processing in the Insula.
- [1*] Turner, E., Murthy, S., Noumair, M., Kodaiarasu, K., K Jabbour, S., Satinksy, E., (In preparation). Adverse Childhood Experiences (ACEs) and problematic substance use in low- to middle- income countries: a systematic review. Prospero Registration Number: CRD42021278160