Jesse R. Macyczko

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RESEARCH INTERESTS

Cognitive neuroscience, perception, neuroimaging, mental illness, visual adaptation

EDUCATION

Integrative Neuroscience Doctor of Philosophy, Current - University of Nevada, Reno
Behavioral Neuroscience Bachelor of Science, December 2019 - University of North Florida
A.A Degree, December 2017- University of North Florida

PUBLICATIONS

Jesse R. Macyczko, Na Wang, Jing Zhao, Yingxue Ren, Wenyan Lu, Tadafumi C. Ikezu, Na Zhao, Chia-Chen Liu, Guojun Bu, Yonghe Li. (2022). Suppression of Wnt/β-catenin signaling is associated with downregulation of Wnt1, PORCN and Rspo2 in Alzheimer's disease. *Molecular Neurobiology.*

Yonghe Li, **Jesse R. Macyczko**, Chia-Chen Liu, Guojun Bu. (2022). ApoE4 reduction: an emerging and promising therapeutic strategy for Alzheimer's disease. *Neurobiology of Aging.*

MANUSCRIPTS UNDER PREPARATION

Jesse R. Macyczko, Na Wang, Wenyan Lu, Suren Jeevaratnam, Francis Shue, Yuka Martens, Chia-Chen Liu, Takahisa Kanekiyo, Guojun Bu, Yonghe Li. Upregulation of sFRP1 is more profound in female than male 5xFAD mice and positively associated with amyloid pathology.

RESEARCH APPOINTMENTS

PhD Student: University of Nevada, Reno, Integrative Neuroscience, August 2022 to present: Involved in research studying visual adaptation as well as perceptual alterations in Schizophrenia.

Graduate Research Education Program Student: Neurobiology of Alzheimer's Disease Lab, Mayo Clinic, Neuroscience Department, March 2021 to 2022. Transitioned to a student-oriented position so that I might take advantage of the learning opportunities.

Special Project Associate II: Neurobiology of Alzheimer's Disease Lab, Mayo Clinic, Neuroscience Department, November 2020 to March 2021. Worked towards the discovery of Alzheimer's disease treatments utilizing an array of molecular biology techniques.

Special Project Associate II: Translational Neuropathology Lab, Mayo Clinic, Neuroscience Department, June 2020 to November 2020. Part of the Immunohistochemistry team, worked to investigate Alzheimer's disease subtypes utilizing immunohistochemistry and neuroimaging.

Lab Manager: University of North Florida, Department of Psychology, December 2019 to June 2020. Responsibilities included holding lab meetings, mediating between all of the projects in the lab, helping other members prepare for research conferences, teaching about the fNIRS equipment, data analysis, experimental design, and writing IRB proposals.

Assistant Lab Manager: University of North Florida, Department of Psychology, January 2019 to December 2019. Responsibilities included holding lab meetings when needed, helping students with the other projects, working on my own project, and writing IRB proposals.

Teacher's Assistant: University of North Florida, Department of Psychology, January 2019 to June 2019. Graded assignments for the Research Methods students and helped answer any questions the students may have had about the subject.

Lab Assistant: University of North Florida, Department of Psychology, August 2017 to January 2019. Running participants was a large part of this position, but data analysis, presenting at conferences, and experimental design all came into play.

CONFERENCE PRESENTATIONS

2020. Macyczko, Jesse. "Using fNIRS to Study Mindful Meditation and its Effects on Emotional Processing." Southeastern Psychological Association, New Orleans, FL

2020. Macyczko, Jesse. "Using fNIRS to Measure Emotional Processing Following Mindful Meditation." Florida Undergraduate Research Conference, Fort Myers, FL

2019. Macyczko, Jesse. "Using fNIRS to Explore Students' Strategy Use During Reading." Southeastern Psychological Association, Jacksonville, FL

2019. Macyczko, Jesse. "Using fNIRS to Study College Students' Reading Strategies." Florida Undergraduate Research Conference, Jacksonville, FL

2018. Macyczko, Jesse. "Exploring the Use of fNIRS in a Multrait-multimethod Investigation of Students' Strategic Processing." Assessing learning through online measures, Antwerp, Belgium

2018. Macyczko, Jesse. "Exploring Emotional Processing with fNIRS." Florida Undergraduate Research Conference, Melbourne, FL

2018. Macyczko, Jesse. “Prefrontal Cortex Responses to Emotionally-Valenced Images.” Showcase of Osprey Advancements in Research and Scholarship, Jacksonville, FL

TEACHING EXPERIENCE

Teaching assistant, PSY/NS Perception 405, University of Nevada, Reno, Spring 2023
Teaching assistant, PSY/NS Perception 405, University of Nevada, Reno, Fall 2022
Teaching assistant, PCB Behavioral Neuroscience 3002, University of North Florida, Spring 2019

HONORS / AWARDS

Raymond H. Berner Scholarship award, 2022
Transformation Learning Opportunity, 2018
International Conference Grant, 2018
Dean’s List, Fall 2017

RESEARCH SKILLS

Software Skills - EEG, fNIRS, MATLAB, Microsoft Excel, Microsoft Powerpoint, GraphPad, Keyence fluorescent imaging, Aperio immunohistochemical imaging

Benchwork Skills - Western blot, ELISA, qPCR, plasmid isolation, cell culture, immunofluorescent staining with mouse brain, animal modeling and research with rodents

REFERENCES

Name	***Institution***	***Position***	***Email***
Michael Webster, Ph.D	University of Nevada, Reno	Foundation Professor	mwebster@unr.edu
Guojun Bu, Ph.D	Mayo Clinic Jacksonville	Chair of Neuroscience	Bu.Guojun@mayo.edu
Yonghe Li, Ph.D	Mayo Clinic Jacksonville	Assistant Professor	Li.Yonghe@mayo.edu
Katherine C. Hooper, Ph.D	University of North Florida	Director, Behavioral Neuroscience Program	KHooper@unf.edu
Daniel Dinsmore, Ph.D	University of North Florida	Associate Dean/ Professor	Daniel.Dinsmore@unf.edu