



**BRAIN HEALTH
RESEARCH INSTITUTE**
at Kent State University

NEWS

BHRI RESEARCHER SPOTLIGHT

Dong Whi Yoo, Assistant Professor, School of Information



My research interests are at the intersection of human-computer interaction (HCI) and digital mental health. I specialize in designing AI-based tools to aid individuals with mental health conditions.

Before joining Kent State as an Assistant Professor last September, I developed a predictive AI tool for schizophrenia management as a PhD student at Georgia Tech and as a visiting scientist at Northwell Health. While recent advancements in predictive algorithms have shown promising accuracy in relapse detection, they often neglect the sociotechnical

factors influencing model performance. Our human-centered research has highlighted the dependence of individuals with schizophrenia on their support networks, such as family and loved ones, for relapse detection. This insight suggests that predictive models will likely be utilized in collaboration with patients and their support systems. We've focused on integrating these sociotechnical aspects into predictive algorithms, and I'll be presenting this work at the CHI 2024 conference in May.

In recent collaborations with researchers at UIUC, we've begun investigating how to facilitate the safer and more effective use of LLM-based chatbots, like ChatGPT, for mental health support. While recent studies have reported ChatGPT's usage in mental health contexts, we aim to define what constitutes 'safe' and 'effective' in this application and to promote such usage for mental health self-management. Though still in the preliminary stages, our goal is to establish frameworks for the ethical application of ChatGPT in mental health self-care, including the development of specialized ChatGPT-based tools for this purpose.

We're pleased to announce the following members have been awarded Pilot Grants for the 2024 Program!

BLUE PILOT GRANTS

Drs. Woo Shik Shin and Christine Crish

(Pharmaceutical Sciences, NEOMED)

Developing Combination Therapies for Amyloid beta-dependent and -independent tau aggregation

Drs. Melissa Edler and William Hopkins

(Anthropology, Kent State University / Comparative Medicine, The University of Texas)

The effects of aging and Alzheimer's disease pathology on vascular associated proteins in chimpanzees and humans

Awards continued on next page.



For more information about the BHRI, visit www.kent.edu/brainhealth

BRAINS ON TAP

Spirit of Motherhood Helps Women and Their Children Thrive

The BHRI hosted its third Brains on Tap event at the Bell Tower Brewing Company in Kent on Wednesday, February 21. Angela Neal-Barnett, Ph.D., PRADAA, Department of Psychological Sciences, Kent State



University, and Diane Robinson, MA, Immediate Past President, Greater Stark County Urban League, discussed their work with Black mothers and the impact it has had on our communities in Northeast Ohio. The Spirit of Motherhood has provided a place for Black mothers to feel safe and feel heard. The program not only has a positive impact on Black mothers, but also on their babies and on future generations. The event was well attended by community members from the Kent area, who praised the program and continued the conversation well after the presentation and Q&A ended. Listen to a recording of the event aired on Ideastream's Sound of Ideas on March 20 by going to their website or using the url below:

<https://ohiochannel.org/video/the-sound-of-ideas-3-20-2024>

GOLD PILOT GRANTS

Dr. Joseph Bedont

(Biological Sciences, Kent State University)

Does sleep debt increase sugar preference?

Dr. Meghan Edmondson

(College of Nursing, Kent State University)

Effect of Low, Moderate, and High Intensity Exercise on Executive Function, Functional Impairment, and Symptom Severity in ADHD

Drs. Helen Piontkivska and Colleen Novak

(Biological Sciences, Kent State University)

ADAR editing changes in brain of high and low aerobic capacity rats in response to inflammation

LET'S MAKE THE RULES

A Neurodiversity Research Initiative Event

The Neurodiversity Research Initiative (NRI) will host its second neurodiversity focused event on Friday, April 5, 2024, from 12-6pm, in collaboration with the Design Innovation (DI) Initiative at Kent State. The event, "Let's Make the Rules", will be held in the DI Hub, and will provide a vehicle for exploring the talents and abilities of neurodivergent students. Game creation is the format for the event through which participants will work individually, in groups, and in teams to create a game to address a particular area of interest. The event prioritizes student involvement with students who identify as neurodiverse not only partaking in the event but also in the planning, communication and marketing, and documenting of it.



BHRI Website

INSTITUTE REVIEW

The BHRI Institute Review is ongoing. A 5-Year Self-Assessment report was submitted at the end of 2023 and is being reviewed by the BHRI Institute Review Committee. It is now available on the regular, student, and alumni [member portals](#). Additionally, the Committee requested input from members via survey in February and collected additional feedback from focus groups in March. The Committee is on course to make its recommendations later this month.

