



# Miller School Researchers Receive Alzheimer's Association Grant

Four researchers at the University of Miami Miller School of Medicine received Alzheimer's Association International Research Grants, giving UM the most funded projects of any university in Florida in the organization's 2022 cycle.



Recipients of the Alzheimer's Association International Research Grants.

The awards were given to Sanjoy Bhattacharya, Ph.D., M.Tech., professor of ophthalmology at Bascom Palmer Eye Institute; Sarah Getz, Ph.D., instructor of neuropsychology in the Department of Neurology; Michael J. Kleiman, Ph.D., postdoctoral data scientist; and Karen Nuytemans, Ph.D., research assistant professor in the Dr. John T. Macdonald Foundation Department of Human Genetics.

The International Research Grants program primarily funds early-career scientists working on new ideas in Alzheimer's research. This effort is part of a comprehensive funding strategy implemented by the Alzheimer's Association to attract new scientists to the field in an effort to lead future breakthroughs while generating new data and strategies on the disease.

"The only way we will achieve a world without Alzheimer's is



through research,” said Tracey Wekar-Paige, executive director for the Alzheimer’s Association Southeast Florida Chapter. “Funding these individuals not only supports this critical project but is part of a broader Alzheimer’s Association effort to keep the best and brightest scientists working on this disease.”

## **Alzheimer’s Association “New to the Field” Grant**



Sanjoy  
Bhattacharya,  
Ph.D., M.Tech.

Dr. Bhattacharya is the “New to the Field Grant” recipient for his work on neuroregeneration in Alzheimer’s disease. His research shows the connectivity of neuron cells, mediated by axons, and how this process is vital to help signals travel long distances in the brains of patients with Alzheimer’s. With the grant, Dr. Bhattacharya will focus on growth cones – imagine locomotives that pull entire processes behind them – long-distance axon regeneration and connectivity with other neurons.

“If we are successful, this grant will allow us to present a big interventional potential of Alzheimer’s disease,” Dr. Bhattacharya said. “My entire lab is very excited to start this work so that we receive and answer and hopefully make a difference in the lives of our patients suffering from the disease.”

## **Alzheimer’s Association Clinical Scientist Fellowship**





Sarah Getz, Ph.D.

Dr. Getz was awarded the Clinical Scientist Fellowship for her research “Decision Making and Advanced Planning Care in Alzheimer’s Disease.” She is in the beginning stages of her research but is looking to recruit participants from a pool of 850 adults over 60 with fluid imaging and genetic biomarkers to investigate susceptibility to decision-making problems. She further plans on using a novel paradigm to measure financial susceptibility and neurocognitive evaluations with the help of James Galvin, M.D., M.P.H, professor of neurology and director of the Miller School’s Comprehensive Center for Brain Health.

“I’m most excited to learn the new tools while working with Dr. Galvin and his database,” Dr. Getz said. “We are currently learning implementations and synergizing with his database to provide us with a rich data set and markers. Ultimately, this is meant to be something general practitioners can use to make appropriate decisions regarding their patients with Alzheimer’s.”

## **Alzheimer’s Association Research Fellowship**



Michael J.  
Kleiman, Ph.D.

Dr. Kleiman received the Research Fellowship for his proposal “Mapping Trajectories of Speech Metrics in Preclinical Alzheimer’s Disease.” The project aims to detect amyloid, a marker of Alzheimer’s disease, in patients through speech behavior before irreversible damage is done in the brain. Dr. Kleiman uses measured speech behavior using simple picture



description or story recall tasks, spectral analysis of audio files, and sentiment analysis using natural language processing to differentiate between people with high and normal amyloid levels.

“If we can show that speech behavior is meaningfully affected in preclinical Alzheimer’s disease, then it may be the case that other cognitive processes are as well,” Dr. Kleiman said. “In addition, there may be other cognitive markers that, when paired with speech behavior analysis, could give a more targeted description of whether a patient is at risk for cognitive impairment or dementia, or if their subjective complaints are simply due to normal aging.”

Another target of Dr. Kleiman’s involves searching for relationships between speech metrics and other data obtained from the Comprehensive Center for Brain Health. This includes medical, lifestyle and nutritional data, among others.

## **Alzheimer’s Association Research Grant**



Karen Nuytemans,  
Ph.D.

Dr. Nuytemans is the Research Grant recipient for her work “Dementia with Lewy Bodies Genetics and Biomarkers in Diverse Populations.”

Dementia with Lewy bodies (DLB) is characterized by an almost simultaneous start of clinical symptoms reminiscent of Alzheimer’s and Parkinson’s disease. For a long time, DLB was considered the overlap between these two diseases, but it is now being looked at as its own entity. Identifying genetic



factors and biomarkers is important to understanding the mechanisms driving the development of disease, which in turn may offer insights into new therapy targets.

With the grant, Dr. Nuytemans aims to enroll Hispanic and African American patients to see if the DLB genes and biomarkers identified in non-Hispanic white patients are also involved in these populations, as well as to detect new ones specific to these populations.

“Given the minimal information available for DLB, I am very grateful to have been awarded this grant that also addresses health disparities by including Hispanic and African American patients in the research to prevent the large gap of biomedical data seen in other complex diseases,” Dr. Nuytemans said.

More information on the DLB study can be found [here](#).

## **Leading the Charge**

The Miller School is a leader in Alzheimer’s and dementia research. Located in South Florida at the gateway to Latin America and the Caribbean, its researchers are studying a range of Alzheimer’s disease factors among diverse cultures. In addition to the Hussman Institute and the Comprehensive Center for Brain Health, the Miller School is home to the Brain Endowment Bank, a leading Alzheimer’s research center and one of six NIH-funded designated brain and tissue biorepositories in the United States.

Content Type article