Staff Writer
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UM Scientists and Physicians Have Strong Presence at 2020 AAIC

The University of Miami Miller School of Medicine is a powerhouse research and treatment center for Alzheimer's Disease and dementia. Presenting groundbreaking research and the latest findings and knowledge in Alzheimer's disease, Miller School geneticists, along with researchers with the prestigious John P. Hussman Institute for Human Genomics (HIHG) and physician-scientists with the Department of Neurology, played a major role at the Alzheimer's Association International Conference 2020.

The AAIC -- the largest and most influential international meeting dedicated to advancing dementia science -- took place virtually this year, from July 27 to 31. The conference attracts the world's leading basic scientists, clinical researchers, early career investigators, clinicians, students and the care research community to share research discoveries that will lead to methods of prevention and treatment, and improvements in diagnosis for Alzheimer's disease.

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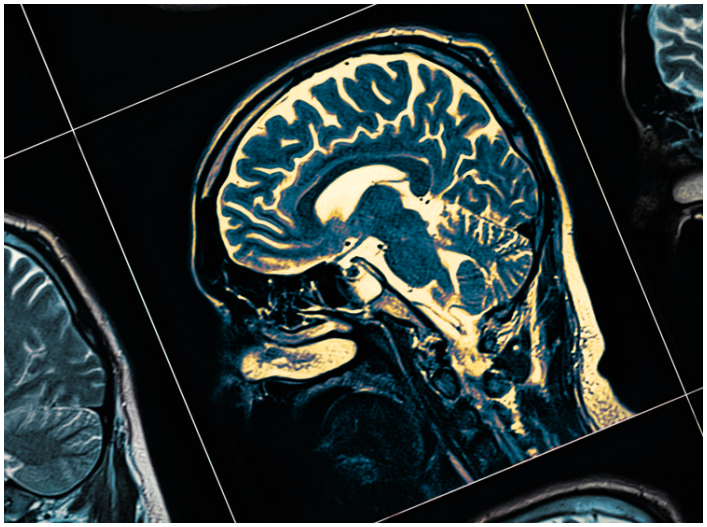

Miller School experts from across disciplines presented on dozens of topics, including updates on the latest research projects, genetic discoveries, poster presentations and panel discussions on the latest treatments and care for patients. Some faculty also provided expert perspective for media interviews.

Alzheimer's experts at HIHG presented breakthrough scientific explorations into racial, ethnic and gender differences in Alzheimer's disease and insightful findings from dementia studies that recruit people from a wide variety of ethnic backgrounds that have historically been excluded from biomedical research, such as African Americans and individuals of Hispanic/Latino heritage.

"Tremendous effort is happening globally to find new treatments and/or preventions for Alzheimer's disease patients," said HIHG Director Margaret A. Pericak-Vance, Ph.D., who is also executive vice chair of the Department of Human Genetics. "AAIC has always been the key conference to engage internationally and share ideas to promote this discovery. Despite COVID-19, researchers came together to share important progress in research. HIHG researchers played a key role in the conference presenting data on gene discovery, functional genomics, and continuing to champion diversity in all aspects of Alzheimer's disease research."

Jeffery Vance, M.D., Ph.D., professor of neurology and founding chair of the Dr. John T. Macdonald Foundation Department of Human Genetics, was interviewed by Medscape Neurology on early life hypertension, diabetes, and cardiovascular risk factors among African Americans for later-life dementia risk.

Post-doctorate HIHG researcher Katrina Celis, Ph.D., presented a talk titled “Increased APOE?4 expression that’s associated with reactive A1 astrocytes and may confer the difference in Alzheimer Disease risk from different ancestral backgrounds.” She also provided expert commentary on her presentation for a Neurology Live video interview.

Other important original platform presentations from HIHG researchers include:

- “iPSC-Derived Neurons and Microglia with an African-Specific ABCA7 Frameshift Deletion Have Impaired Function” by Holly N. Cukier, Ph.D.
- “Functional characterization of an Alzheimer disease-associated deletion in SORL1” by Derek M. Dykxhoorn, Ph.D.

The HIHG is a world-renowned human genomics research institute that has made several breakthrough discoveries in Alzheimer’s disease and has been instrumental in training the next generation of Alzheimer’s disease scientists. Researchers and students also presented a number of poster presentations.

In collaboration with the Hussman Institute, faculty at the Miller School’s Department of Neurology had a significant presence at the AAIC, as the department is also a leading

Alzheimer's and memory disorders care and research center, with a wide range of ongoing clinical trials, including stem cell research. It's also home to the Brain Endowment Bank, a leading Alzheimer's basic science research center and one of six designated brain and tissue biorepositories in the U.S.

At the AAIC, Miller School neurologists investigating Alzheimer's and memory disorders provided expert commentary on innovative areas of research and new studies.

James E. Galvin, M.D., M.P.H., professor and director of the Miller School's Comprehensive Program for Brain Health, participated in panel discussions and platform presentations on dementia screenings, drug development, research and care.

"Despite COVID-19, Alzheimer's disease and related disorders researchers and clinicians were able to come together to share cutting-edge research findings," said Dr. Galvin. "These findings included novel diagnostics that will improve detection of disease and new therapeutic approaches. One such approach is immunotherapy with Aducanumab (Biogen Inc.) that showed potential disease modifying effects for patients with Mild Cognitive Impairment and Early Stage Alzheimer's Disease"

His key presentations included:

- "The LUCINDA Trial: Leuprolide + Cholinesterase inhibition to reduce neurologic decline in Alzheimer's disease"
- "The Positive and Negative Appraisals of Caregiving (PANAC) Scale: A new measure to examine the caregiving experience in Alzheimer's disease and related dementias"
- "The complexity of DLB: U.S.-based Dementia with Lewy

Body Consortium”

Other key discussions and poster presentations by neurology faculty included:

- “Selective Association of Neurogranin Gene Expression with Amyloid and Tau Pathology in the Parahippocampal Gyrus in Alzheimer’s Disease” by Xiaoyan Sun,, M.D., Ph.D.
- “Reduction of neurogranin immunostaining in the hippocampus of post-mortem brain of Alzheimer’s disease” by Regina Vontell, Ph.D.