UM’s New Boca Raton Center Promotes Brain Health Across Lifespan

The University of Miami Miller School of Medicine has opened the new Comprehensive Center for Brain Health, which will serve as an important research hub for healthy brain aging, Alzheimer’s disease, and related disorders.

James E. Galvin, M.D., M.P.H., with a patient.

Led by renowned UM neurologist James Galvin, M.D., M.P.H., a professor of neurology and the center’s director, this new center will focus on research into the diagnosis, prevention, and treatment of neurodegenerative brain diseases. In addition to research, education, and training programs, expert clinicians can provide medical care to interested research
participants and their families.

What sets the center apart most notably is Dr. Galvin’s passion for attending to brain health on a preventive basis.

“We spend very little time talking about health, vitality, and wellness. We spend a lot more time talking about disease and disability. It’s time we did more to help people protect their brains,” he said.

Toward this end, Dr. Galvin and his team are working to understand individuals’ risks for developing common age-related neurodegenerative diseases, such as mild cognitive impairment, Alzheimer’s disease, Parkinson’s disease, Lewy body dementia, frontotemporal degeneration, vascular cognitive impairment, and chronic traumatic encephalopathy.

The transdisciplinary staff includes neurologists, cognitive neuroscientists, nurse practitioners, nurses, physical therapists, licensed clinical social workers, biochemists, epidemiologists, public health researchers, data scientists, and gerontologists.

The center offers a wide range of clinical studies for people with healthy brains and those with cognitive and functional impairments.

“We have developed innovative and novel tools to create an individual profile of brain health risks and can offer what is tantamount to a personalized program to mitigate risks for each person,” Dr. Galvin said.

The new center augments research and patient care within the University of Miami’s Division of Memory Disorders, the Evelyn
F. McKnight Brain Institute, and the Center for Cognitive Aging and Neuroscience.

“Collectively, we're all interested in brain health and in having a world without Alzheimer's disease,” Dr. Galvin said. “While each program is different, we complement each other.”

Focus on Prevention

In the U.S., treatment and care of patients with Alzheimer’s costs $305 billion annually. Unless there are significant medical breakthroughs, by 2050 that number may skyrocket to $1.1 trillion per year, as both the per-capita incidence of dementia grows and baby boomers enter their 80s and 90s.

“The enormous financial burden aside, the tragedy these diseases impose on seniors and their families is played out in one out of every three families,” Dr. Galvin said. “Some of this is preventable now, perhaps up to 40% of the risk of developing a degenerative brain disease. It is important that we take a multipronged approach to prevent disease and slow progression, while also working to develop better treatments and cures.”

Dr. Galvin was inspired to study the aging brain by his own experiences with his grandfather’s decline from Parkinson’s and later, dementia.

“I grew up in a two-family house where my grandparents lived upstairs, and I was very close with my grandpa,” he said. “His Parkinson’s led us into a car wreck that was fortunately not catastrophic, but was a wake-up call that something was wrong. Over the years that followed, I watched someone who was really vital and active become progressively more and more disabled
from this disease.”

“I decided to devote my career to doing something about it, to try to figure out why some people develop these diseases and what we can do to try to treat them, prevent or cure them,” he said.

Measuring Brain Health

To assess brain health, Dr. Galvin and his team currently employ several diagnostic instruments created during his tenure at the University of Miami, including the Quick Physical Activity Rating, the Cognitive and Leisure Activities Scale, the Healthy Brain 9, and the Number-Symbol Coding Test. These instruments enhance Dr. Galvin’s prior research inventions including the AD8, Lewy Body Composite Risk Score, and Quick Dementia Rating System.

Recently, he led a study that established a broad and comprehensive measure of brain health, that he named the Resilience Index (RI). This index goes further than the current tools by predicting the health of an individual’s brain and their risk of developing a brain disease. The RI also drives a personalized prevention plan for optimizing their brain health. These “brain prescriptions” may include specific goals for physical activity, cognitive activity, diet, and even mindfulness practice.

“I think there is an increased interest in thinking about what people could do to try to prevent diseases from developing,” Dr. Galvin said. “People are asking, ‘How can I build a better brain as I get older?’ We know that there are things that are potentially modifiable. I can’t change your age, I can’t
change your biologic sex, I can’t change your genes, but there are a bunch of factors that seem to provide some protection against disease that we can do something about.”

Having developed the RI, Dr. Galvin plans to roll this research program, the Healthy Brain Initiative, out initially to people in South Florida at no cost and later, beyond the region. Participants receive a very detailed, comprehensive assessment at no cost to them. At the end of the visit, they get feedback that they can take back to their doctor, seek medical care at the Comprehensive Center for Brain Health, or see one of the other expert clinicians at UHealth – the University of Miami Health System.

Multicultural Bandwidth
Dr. Galvin’s team is also working on tools to improve the recognition and diagnosis of dementia and how those tools perform in multicultural communities.

“We will be looking across all groups, and at people from all walks of life,” Dr. Galvin said. “These populations include African Americans and Afro Caribbeans, Hispanics, people who live in rural areas, Native Americans and people in American Samoa. We are really trying to understand not just how we recognize the disease in the majority individuals, but how to recognize disease in all people.”

More on the CCBH:
If you are concerned about your memory or that of a loved one, consider participating in our no-cost research evaluations to provide you the answers you seek. A summary can be provided that you can share with your health care provider, or you can
see one of our clinicians for follow-up care and management. We offer innovative research programs including longitudinal studies, industry-sponsored clinical trials, innovative investigator-initiated projects, lifestyle interventions such as Tai-Chi, ballroom dancing, yoga, biomarker development, genetic studies, and much more. We sponsor community seminars to provide important information in clinical care and research advances. You can become part of the CCBH family by joining our auxiliary or, if interested, supporting our research and clinical programs. For more information on the Comprehensive Center for Brain Health, visit https://umiamibrainhealth.org.

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