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IAM STUDY NEWSLETTER 2024

ANNOUNCEMENTS

OUR GRANT WAS RENEWED!

WE WILL
CONTINUE THE
IAM STUDY TO
LEARN EVEN
MORE ABOUT
AGING AND
ALZHEIMER'S
DISEASE



Katrina will call to invite you back to our study.

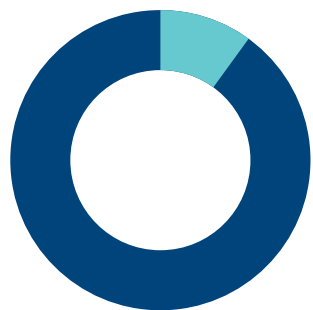
We are also inviting new participants!

**We especially want to invite men
and African American men and women.**

**If you know anyone who might be interested in
participating, please let us know
(maddenka@musc.edu, 843-792-9186).**



WHY VOLUNTEER FOR ALZHEIMER'S RESEARCH?



10%

Proportion of the
IAM Study that is
African American



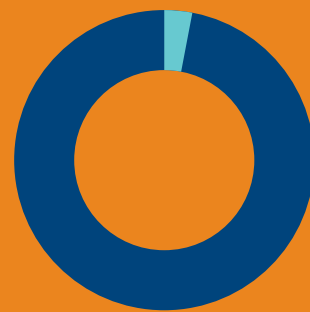
14%

Proportion of the
US population that
is African American



27%

Proportion of the SC
population that is
African American



3-7%

Proportion of
Alzheimer's research
participants who are
African American

**African Americans
develop Alzheimer's**

**2x
MORE**

**than white
Americans**



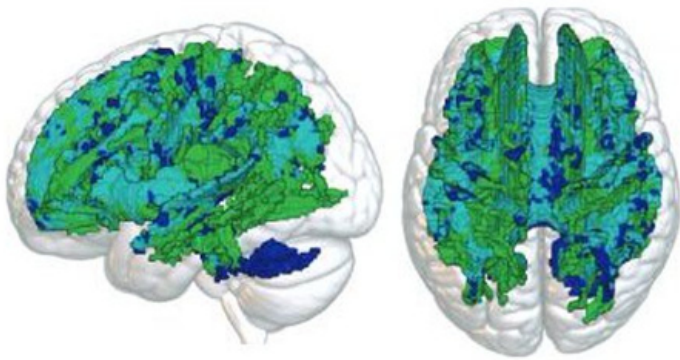
**You can help make
Alzheimer's
research more
equitable.**

**Volunteer as an
Alzheimer's
research
participant today!**

THE FIRST FIVE YEARS - 2017-2021

Our Participants

- In the first five years of IAM, 165 generous people **aged 45 to 85** participated in our study!
- 51 men and 114 women came from **as far as 750 miles away** to help us learn more about brain aging.



What Have We Learned?

- Novel brain MRI techniques that we developed suggest that the brain experiences chronic neuroinflammation in the presence of Alzheimer's disease (AD) pathology even before symptoms start. This finding supports the development of new AD treatments that target brain inflammation.
- Our novel techniques also confirm that a part of the brain cell that degenerates with aging is the part that transmits impulses (aka "axons") from cell-to-cell, with smaller axons being lost more than larger ones. This finding helps the scientific community to better distinguish age-related changes from AD-related changes, which is still an under-researched area.

165
THE NUMBER OF
PARTICIPANTS
SO FAR

25
THE NUMBER OF
PAPERS WE'VE
PUBLISHED

MORE DATA ALLOWS
US TO **BETTER**
UNDERSTAND THE
AGING BRAIN!

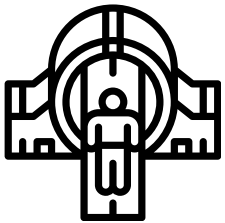
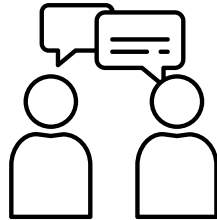
THE NEXT FIVE YEARS (2023-2027)

RETURNING PARTICIPANTS WILL...



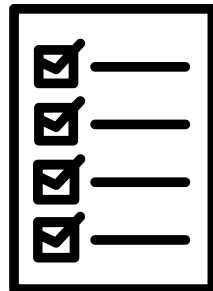
...have their vitals, a blood sample, and a saliva sample collected.

...undergo a clinical interview to learn more about their medical history.



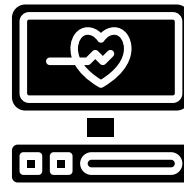
...participate in a 1.5 hour MRI scan.

...take a series of neuropsychological tests and complete questionnaires.



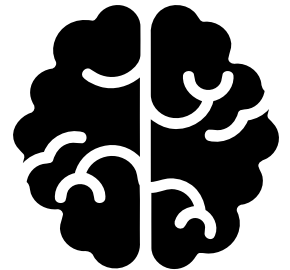
...EVERY TWO YEARS

NEW PARTICIPANTS WILL...



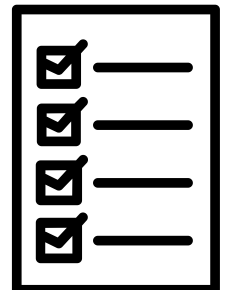
...have their vitals, a blood sample, and a saliva sample collected.

...undergo a PET scan.



...participate in a 1.5 hour MRI scan.

...take a series of neuropsychological tests and complete questionnaires.



MEET THE TEAM



Anya Benitez is the IAM study Principal Investigator. She is a clinical neuropsychologist with expertise in aging and Alzheimer's disease.



Stephanie Aghamoosa is a Co-Investigator on the IAM study and a clinical neuropsychologist with expertise in the neuroscience of brain aging.



Katrina Madden oversees study recruitment, scheduling, and behind the scenes study activities. She has a background in chemistry and business and is passionate about engaging special populations in research.



Jens Jensen is an MRI physicist and director of MUSC's Center for Biomedical Imaging. His current work applies MRI to Alzheimer's disease and aging.



Ryn Thorn is an MRI data manager and image analyst for the IAM study. She is also a fledgling science writer with with MUSC's SC-SWIFT program.



Reyna Hickey is a program coordinator for the CATS and IAM studies. She has a background in neuroscience and psychology and is interested in pursuing a research career focused on aging and dementia.



Vittoria Spampinato is a neuroradiologist and co-investigator in the IAM study. Her role is to evaluate and interpret the brain MRIs of the study participants.



Fatima Falagola is a neuropathologist and neuroimaging researcher studying aging and neurodegenerative diseases in humans and animals.



Sarah Helton is a program coordinator for the IAM study. Her educational background is in psychology, and her current area of interest is neuropsychology.



Eric Hamlett performs genotyping for all participants in the IAM study. He specializes in wet lab research to uncover mechanisms that underlie Alzheimer's disease.



Federico Rodriguez-Porcel is a neurologist subspecialized in cognitive and movement disorders. He provide clinical input on participant screening, recruitment, and retention.



Paul Nietert is a biostatistician with an interest in aging research and co-investigator on the IAM study. He directs several methodological cores for NIH-funded centers.



BJ Rieter is a radiologist who analyzes the PET images acquired for the IAM study.



Sara Nolin is a post-doctoral fellow in clinical neuropsychology. She works on the PUSH and IAM studies.



Hunter Moss is a postdoctoral scholar in Dr. Benitez's lab. He focuses on perfecting advanced diffusion MRI techniques for our lab.

MUSC BRAIN BANK

The Carroll A Campbell Jr. Neuropathology Lab brain bank preserves donor brains in order to study the brain in ways that cannot be done otherwise.

CONSIDER DONATING

Interested in Joining Another Study?

PUSH 2 Study

This is a phase II clinical trial of Transcranial Magnetic Stimulation (TMS) for Mild Cognitive Impairment (MCI) and depression. TMS is a non-invasive, non-drug procedure that uses magnetic fields to stimulate the brain. A combination of active and sham treatment is delivered over 2 weeks and we follow all participants over 6 months. Our aim is to help patients PUSH against the onset of dementia.

CATS Study

This research study investigates the effects of cannabis use and stress on memory and thinking and risk for Alzheimer's disease. We are recruiting healthy older adults ages 50-80 who regularly smoke or use cannabis products.

If interested in either study, please contact:

Katrina Madden

Phone: (843) 792-9186

Email: maddenka@musc.edu

THE MEDICAL UNIVERSITY OF SOUTH CAROLINA

Founded in 1824 in Charleston, The Medical University of South Carolina is the oldest medical school in the South. Today, MUSC continues the tradition of excellence in education, research, and patient care. MUSC educates and trains more than 3,000 students and residents, and has nearly 13,000 employees, including approximately 1,500 faculty members. As the largest non-federal employer in Charleston, the university and its affiliates have collective annual budgets in excess of \$2.2 billion. MUSC operates a 750-bed medical center, which includes a nationally recognized Children's Hospital, the Ashley River Tower (cardiovascular, digestive disease, and surgical oncology), Hollings Cancer Center (one of 68 National Cancer Institute designated centers), Level I Trauma Center and Institute of Psychiatry.