



March 2020

# Brain Health Buzz

*Brain health news for African Americans*



Wisconsin Alzheimer's  
Disease Research Center  
UNIVERSITY OF WISCONSIN  
SCHOOL OF MEDICINE AND PUBLIC HEALTH



Wisconsin Registry  
for Alzheimer's Prevention  
UNIVERSITY OF WISCONSIN  
SCHOOL OF MEDICINE AND PUBLIC HEALTH

## From My Heart to Yours

*By Fabu Carter, Senior Outreach Specialist*

We have several wonderful events coming up that you will not want to miss. For not only do you get to see other study participants, but you get the latest updates on Alzheimer's disease news and research.

First we have two Solomon Carter Fuller events to celebrate our 10th anniversary and recognize the churches that have supported our research. One is on March 13, 6-8 p.m. at Mt. Zion Church, the Recognition Awards and Ecumenical Candlelight Service of Remembrance. The second is on March 14, 8:30 a.m. to 2:30 p.m. at the Wyndham Garden Hotel, called the Brain Health Brunch.



**Fabu Carter**

Come out and hear first-hand our new Wisconsin ADRC Precious Memories Choir made up of people who have some connection to memory loss. There will be good music, good information, and good food. We also will pull prizes for people who turn in an evaluation and stay to the end of Saturday's program. Full event details and location addresses are included on the fliers mailed with this newsletter. Please let me know if you need free transportation by cab.

Other upcoming events include the Large Appreciation Event on April 25, which thanks all research participants who are involved in our ADRC Clinical Core Study, and our Annual Volunteer Appreciation Breakfast on June 6, a special event for research participants from groups traditionally under-represented in research. I look forward to seeing you at our upcoming events. ♦

## Meet Our Staff

*Carmyn Hayes is the new student outreach assistant at the Wisconsin Alzheimer's Disease Research Center, working with Ms. Fabu Carter.*

I am a senior here at UW-Madison and will be graduating in May 2020 with a BS in Psychology and Certificate in Afro-American Studies. My post-graduation plans are to attend graduate school with the hopes of one day becoming a licensed sport psychologist. I am interested and wanted to work in this research lab because Alzheimer's is a difficult disease for everyone involved, not just the individual directly affected by it. I enjoy the work that Ms. Fabu Carter and her colleagues are doing to try to find preventive measures and ways to help people cope and re-engage their memories. I hope one day we can possibly find a cure for this disease and other forms of dementia. ♦



**Carmyn Hayes**

## Fabu's Office Hours

**Office Number:** (608) 265-4329

**Mondays & Wednesdays, 8 a.m.–5:30 p.m.**  
3330 University Ave., Suite 200, Madison

**Tuesdays, Thursdays & Fridays, 9 a.m.–5 p.m.**  
UW South Madison Partnership Office at the  
Village on Park, 2312 S. Park Street, Madison

# The Gut Microbiome and Alzheimer's Disease

By Kaitlin Edwards, Student Science Writer

In research, it is understood that neurodegenerative diseases like Alzheimer's disease are a result of more than just genetics. Even amongst genetically identical twins, the age of onset of Alzheimer's can vary greatly. There has been up to a documented 18-year difference of onset between twins.

Barabara Bendlin, PhD, an Alzheimer's disease researcher at UW-Madison, is interested in the environmental aspects of risk factors for Alzheimer's disease. One area Dr. Bendlin is studying is the role of people's gut microbiota and Alzheimer's disease.

Microbes, small organisms that are everywhere in the environment, live in and on everyone's body. People are composed of about 30 trillion human cells, and have about 38 trillion microbe cells living on or in them. Microbes include bacteria, viruses, and fungi, and most of them are beneficial — they play an important role in health. The majority of the microbes cohabiting with humans live in the gut.

Recently in neuroscience research, scientists have identified the connection of these microbes in the context of the brain. The gut is well connected to the brain via the vagus nerve, which runs from

the brain stem to part of the colon. Through the vagus nerve, the brain can communicate to the gut and the gut can communicate to the brain. Microbes in the gut produce signaling molecules that send messages up to the brain. Differences in gut microbiotas have been identified in many disorders, including anxiety, depression, addiction, anorexia, schizophrenia, attention deficit, autism, stroke, ALS, epilepsy, multiple sclerosis, and Parkinson's disease.

Dr. Bendlin's laboratory looks at gut microbiota differences between people with and without Alzheimer's disease. From stool samples, Dr. Bendlin uses genetic sequencing and is able to determine what microbes are in the gut, how many microbes there are, and how many different kinds there are. Dr. Bendlin's lab has found that people with Alzheimer's disease have less diversity in their microbiomes.



*Try to incorporate 30 plant-based foods in your diet each week. The world's largest microbiome study found participants who ate more than 30 different plant types per week had gut microbiomes that were more diverse than those who ate 10 or fewer types of plants per week.*

Many things factor into people's microbiome diversity, and it is constantly being modified. A lot of the microbiome is introduced to people from their mothers at birth. Who people live with, what they eat, and different medications they take also alter microbiome composition.

While the exact link and role between gut microbes and Alzheimer's disease is still unknown, it's promising to know that microbes play a key role in health. They offer immense potential opportunities for treatments and intervention for Alzheimer's disease in the future. ♦

Are you  
concerned about  
**MEMORY  
LOSS?**

Free, confidential memory screenings will be available for older adults March 20-21 at the UW-South Madison Partnership Office. We recommend participating in a memory evaluation only if you or a loved one is concerned about your memory and thinking abilities. Please register by contacting Carola Ferrer Simo at (608) 280-2215 or email her at [cferrer@medicine.wisc.edu](mailto:cferrer@medicine.wisc.edu) for a confidential appointment.