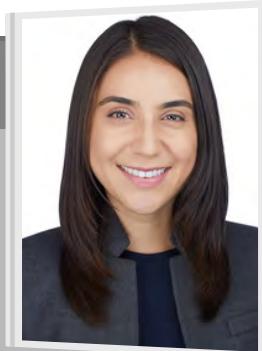




**WE'VE BEEN BUSY IN YOUR COMMUNITY!**

### **Ambassadors of Science Event, Seattle WA**

The Ambassadors of Science Event, held on August 9, 2025, at El Centro de la Raza, was designed to re-engage Hispanic/Latino participants involved in the UW Alzheimer's Disease Research Center (ADRC) Clinical Core study. The event aimed to share research updates, highlight the national impact of participants' contributions, and provide an educational experience centered on the 6 Pillars of Health: staying socially active, eating heart-healthy foods, staying physically active, continuing to learn, managing stress, and prioritizing sleep.



### **TEAM MEMBER SPOTLIGHT**

#### **Maggie Ramirez, PhD, MS**

Maggie Ramirez, PhD, MS, is the Cheryl M. Scott – Group Health Cooperative Endowed Professor, Associate Professor in the Department of Health Systems and Population Health at the UW School of Public Health, and the Associate Director of the UW Master of Health Administration Programs. She recently joined the ADRC Outreach, Recruitment, and Engagement Core.

Dr. Ramirez has an interdisciplinary background in human-centered design, health services research, and learning health systems research. Her research focuses on designing technology-enabled interventions to improve the quality of care and outcomes for family caregivers of people with Alzheimer's disease and related dementias. Dr. Ramirez is a Co-Principal Investigator for a newly awarded R01 grant from the National Institute on Aging focused on developing an AI virtual assistant with chatbot functionality to support family caregivers in STAR-C, an evidence-based program that teaches strategies for managing behavioral and psychological symptoms of dementia. Outside of work, she enjoys gardening and spending time with her husband and their three small children.

# RESEARCH UPDATE: BLOOD BIOMARKER CORE

By: Genevieve Wanucha and Katherine Lopez

## Blood-based biomarkers and the contribution of research participants: An interview with Lynn Bekris, PhD, Leader of the ADRC Biomarker Core.

Biomarkers provide clues about a person's health. For example, biomarkers from blood can be measured in a medical laboratory, such as a cholesterol test. Brain imaging tests, such as MRI, can be measured in the clinic. Elevated blood pressure readings may indicate high blood pressure. Higher levels in the blood of the prostate-specific antigen may indicate prostate cancer. These measurable substances help doctors diagnose disease, create treatment plans, and ultimately, evaluate the effectiveness of new treatments.

Biomarker tests have transformed Alzheimer's disease diagnosis and monitoring in the last decade. Most recently, in 2025, the FDA approved the first blood test for the early detection of Alzheimer's pathological risk in adults aged 55 years and older who are showing changes in thinking and memory. Earlier detection using this blood test as a screening tool in the primary care clinic promises to speed time to further clinical evaluations and support from Alzheimer's disease specialty care clinicians.

Fluid biomarkers can be essential tools in Alzheimer's and brain health by acting as an added clinical tool to evaluate risk for Alzheimer's disease and related dementias.

"The problem we have in Alzheimer's disease research is that the brain is difficult to access," says the ADRC's Lynn Bekris, PhD, a professor of Laboratory Medicine and Pathology at UW Medicine. "We can use brain imaging, but it is a time-intensive and expensive tool. Blood biomarkers are more accessible."



Obtaining blood biomarkers for research is minimally invasive, time-saving, and economical. "Participants are more willing to donate blood," says Dr. Bekris. "With larger numbers of samples in research studies, we can find, for example, differences within people of different ancestries."

Emerging evidence points to inflammation as playing a critical role in Alzheimer's and brain health. However, a reliable blood-based biomarker of inflammation has not been identified yet. In her lab at UW Medicine, Bekris focuses on using blood-based biomarkers to study the immune response in Alzheimer's disease and related dementias. She uses circulating biomarker results from individuals in the ADRC cohort to detect early inflammatory changes associated with neurodegenerative disease.



# **“In just a drop of blood, we can measure over a hundred, or even over a thousand, immune-related proteins.”**

Dr. Bekris says that ADRC participant data are helping her conduct critical research projects. In ongoing work, she is finding distinct patterns of immune responses across different stages of Alzheimer's disease and types of pathological progression. “In just a drop of blood, we can measure over a hundred, or even over a thousand, immune-related proteins,” she says. The team can then group the different proteins by their relationship with brain biology. These findings provide specific information on the role of the immune system in neurodegeneration.

Even though the Alzheimer's field has reliable biomarkers for amyloid and tau in the brain, cerebrospinal fluid, and blood plasma, there are still gaps in knowledge. “One problem is,” Bekris says, “that it is rare for an Alzheimer's patient to have only amyloid and tau pathology. It's more common to see multiple other pathologies in the brain at autopsy. So, we're still trying to figure out how to find good fluid biomarkers for non-amyloid and tau pathologies, including Lewy bodies and TDP-43 protein, and the different types of immune response related to these pathologies, in living people.”

For Dr. Bekris, the highlight of 2025 has been the acquisition of a state-of-the-art research instrument. This instrument can measure a panel of 134 neurodegenerative disease-related proteins from just 20 microliters (a drop) of plasma.

“I'm pretty excited that we're going to be able to measure all these biomarkers at once in the same small sample,” she says. “This will help us tease apart which protein signatures best predict early-stage processes in Alzheimer's disease and related dementias.”

This year, the ADRC began a focused effort to support research into fluid biomarkers for Alzheimer's disease and related dementias in the newly created ADRC Biomarker Core, led by Dr. Bekris, alongside Donald L. Elbert, PhD and Michael Rosenbloom, MD, who are both associate professors of neurology at UW Medicine.

The Biomarker Core recently started processing the blood samples from the ADRC longitudinal study. This Core catalogs and stores the samples for investigators to access and study. This service supports researchers, locally and nationwide, in their search for fluid biomarkers to better understand the underlying biology driving resilience or susceptibility to Alzheimer's disease and related dementias.

The most rigorous aspect of work in the ADRC Biomarker Core is the handling of sample sharing for biomarker research. Investigators from the UW and beyond often request samples for their studies. The Core leaders meet as a committee to discuss whether the ADRC has the resources needed to address the specific scientific questions and to determine whether they can transfer the samples.

“So, we are involved in a lot of different research projects,” says Dr. Bekris. “When research participants donate samples in the ADRC study in Seattle, they're also donating to the nationwide effort to figure out what's going on with Alzheimer's disease and how we can find better biomarkers.”



UW ADRC team members hosted a resource table at the 2025 Walk for Alzheimer's of the Alzheimer's Association.

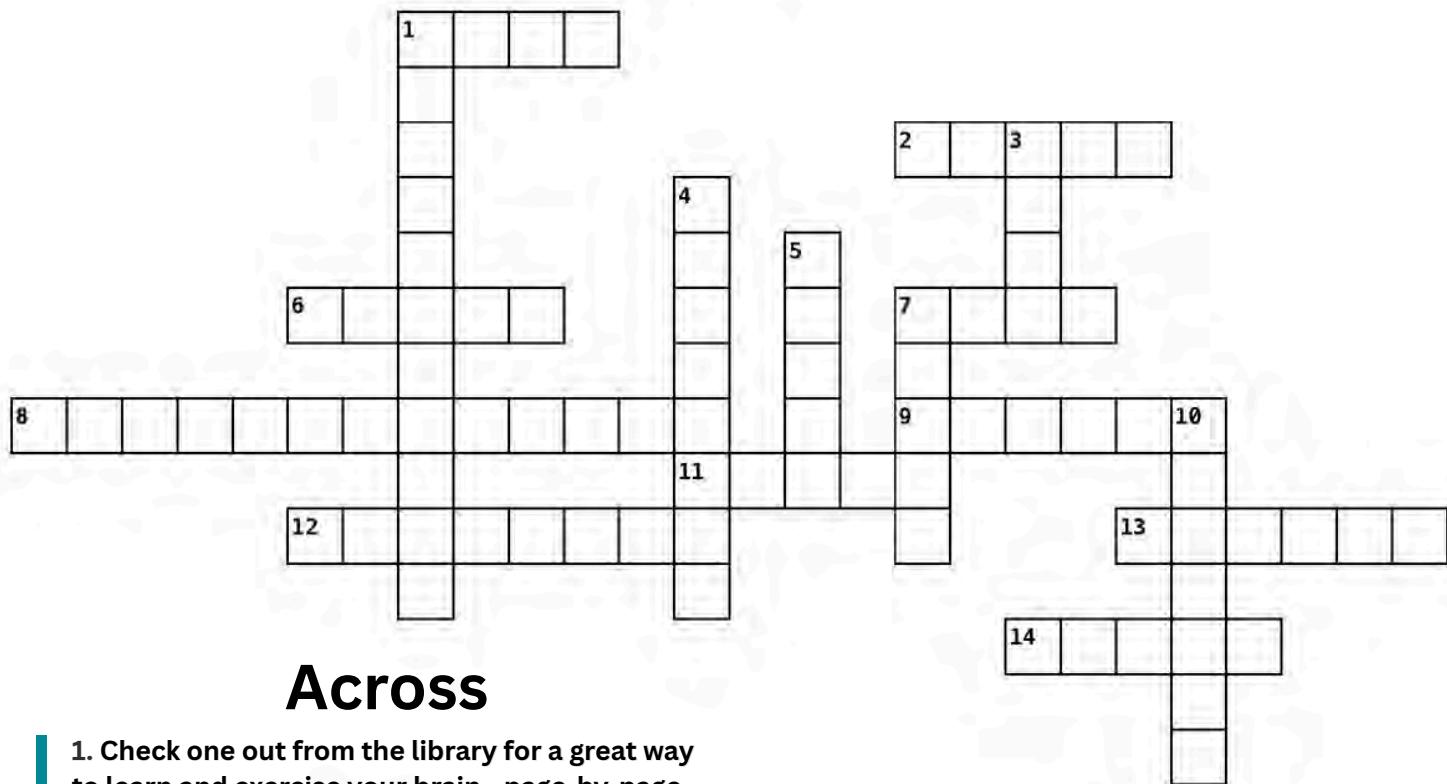


## Prescriptions for Brain Health

Evidence from recent clinical trials supports these recommendations for promoting brain health in mid to later life.

- Aim for engaging in physical activity **4 days a week** and **strengthening exercises 2 days a week**.
- Stay socially connected!** Consider volunteering for a local organization or joining a group focused on an activity you enjoy, such as walking.
- Challenge your brain** in ways that are fun to you! Try crossword puzzles, reading, games, or volunteering.
- Eat more greens, berries, fish, olive oil and nuts, and less fatty and processed foods. **We recommend taking a multivitamin.**
- Meet with your doctor to discuss target numbers for healthy blood pressure and LDL cholesterol levels. **For brain health, we recommend starting treatment at blood pressure readings of (130/80).**
- Aim for 7-8 hours of sleep a night.** If you are struggling with sleep or breathing at night, talk to your doctor about treatment.
- If you are dealing with hearing loss, talk to your doctor about **hearing aids**.

# Brain Health Crossword



## Across

1. Check one out from the library for a great way to learn and exercise your brain - page-by-page.
2. Treating this sleep disorder can help reduce the risk of dementia.
6. Doctors say getting 7-8 hours each night is good for your brain health.
7. Eat at least 8oz a week of this food high in omega-3 fatty acids.
8. The diet named after this region of the world is known to protect heart and brain health.
9. Taking a deep \_\_\_ can help us start to relax and get in the moment.
11. The brain-healthy activity that involves moving to a beat.
12. A regular amount of \_\_\_ can get your heart pumping and lower the risk of heart disease and age-related diseases.
13. A green space where visitors can enjoy the sights and sounds of nature, plant seeds, and watch flowers bloom.
14. Therapy in this art form has been shown to help people living with memory loss to connect with positive emotions and long-held memories through songs.

## Down

1. These round, sweet-tart fruits can be found on bushes out in the wild or in cartons at your grocery store.
3. Squirrels would also like these brain-healthy foods that you must “crack”, “peel”, or “husk” to eat.
4. Garden herb known for its ability to reduce stress and promote relaxation.
5. A type of healthy tea, produced in China and Japan, whose name is its color.
7. Fruits, vegetables, grains, beans, peas, and lentils help you consume a healthy amount of this gut-healthy nutrient.
10. For some, wearing an “aid” to help amplify this sensory ability can help protect brain health.

# RESOURCES



Follow us on Facebook at  
[facebook.com/UWADRC](https://facebook.com/UWADRC)



## Alzheimer's Association

Phone: 1-800-272-3900

Email: [info@alz.org](mailto:info@alz.org)

Website: [alz.org](http://alz.org)

Call the Alzheimer's Association 24-Hour Helpline to speak for free to a Master's level social worker, any day or time.

Explore the monthly education programs offered by the Alzheimer's Association WA State Chapter:  
[alz.org/alzwa/helping\\_your/education](http://alz.org/alzwa/helping_your/education)



Conexion Contigo by Lupita Zamora is an independent Spanish language radio program for the community where you will find information, opportunities and more.

[facebook.com/ConexionContigoRadio](https://facebook.com/ConexionContigoRadio)

Visit [Alzheimers.gov](https://Alzheimers.gov) for updated health information tailored to caregivers, people living with dementia, and professionals.  
En español: [Alzheimers.gov/es](https://Alzheimers.gov/es)



## Contact us

### Questions about this newsletter:

Email: [adrc-community@uw.edu](mailto:adrc-community@uw.edu)

### UW Memory and Brain Wellness Center

Web: [uwmemoryandbrain.org](http://uwmemoryandbrain.org)

En español: [memoria.uw.edu](http://memoria.uw.edu)

### UW Alzheimer's Disease Research Center

Web: [uwadrc.org](http://uwadrc.org)

Phone: 206-744-0588 or  
Toll-free at 855-744-0588

Email:  
[uwadrc@uw.edu](mailto:uwadrc@uw.edu)

Q

Do you have a question about brain health or Alzheimer's research?

A

Send them to  
[adrc-community@uw.edu](mailto:adrc-community@uw.edu)  
It could be answered in a future newsletter!