RUSH

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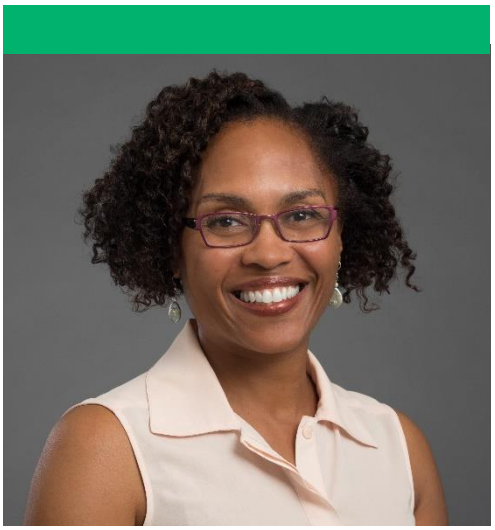

Advancement of Medicine

My most notable research activities in 2025 included an invited plenary at the International Neuropsychological Society, or INS, that was selected as the Capstone Lecture, a distinction that the organization gives to designate and amplify a noteworthy plenary from a distinguished speaker. The selection committee stated that my impressive body of work and the relevance of my presentation to their conference theme in 2025, "Translational Science for Brain Health Equity," made me a natural selection for this distinction. In highlights from the meeting, the INS leadership stated: "This year's program showcased the remarkable progress we are making in ensuring that equitable care is not just an aspiration but an achievable reality for all communities. While there are too many highlights to name, one that truly embodied our theme was the inspiring Capstone Lecture by Dr. Lisa Barnes."

Another notable achievement was an invitation to present on brain health research in a Latino population at an international Alzheimer's satellite conference in Lima, Peru. There, I shared some of the exciting community-based approaches we use at the Rush Alzheimer's Disease Center, as well as best practices from our longitudinal cohort studies. Finally, I presented the inaugural James Jackson Outstanding Mentorship Award Lecture at the Gerontological Society of America, or GSA, annual scientific meeting in November. GSA is the oldest and largest interdisciplinary organization focused on aging, with more than 4,500 experts across aging, health and science. My lecture on my career path was extremely well-received and inspired many early-career scholars, trainees and students.

Research and Community Outreach

The funds associated with my endowed faculty position support my research and community outreach efforts, including programs specifically focused on participant retention in my cohort

studies. For research, I bring in millions of external federal dollars to Rush to support projects focused on brain aging in minority communities. The current National Institutes of Health salary cap cannot entirely cover my salary, so proceeds from the chair are used to supplement my salary and allow me to continue to do pioneering research in populations at high risk of Alzheimer's disease, like older African Americans.

For community outreach, the chair funds allow me to host community events for minority populations on the West and South Sides of Chicago, including an annual Back-to-School Health Fair in Englewood, Alzheimer's caregiver conferences and meetings at local libraries and community centers throughout Chicago, and various presentations on Healthy Aging for Older Adults at senior buildings, churches and community organizations that cater to older adults.

Finally, the funds support retention activities that enhance engagement for our older participants and raise awareness of the importance of brain health in late life. For example, we regularly host "Coffee and Conversations" with older adults from our cohort studies. We hold technology workshops to teach older adults how to use their cell phones and computers, thereby increasing their technological literacy. We continue to create and print a quarterly newsletter for our participants called *Graceful Living,* which provides essential health information, study updates, and opportunities for older adults to stay connected with others in their communities to decrease social isolation and loneliness.

Grants

Numerous external grants have been awarded due to activities supported by this endowment. Last year, we received a collaborative grant with an investigator at the University of California, Davis, to investigate the effects of climate on brain health. We received another collaborative grant that uses our Rush cohort studies to examine personality, stress and cognitive health with researchers at Northwestern University. Data from my studies continues to support a wide array of national and international consortia to help diversify projects that need biospecimens from older African American adults. The endowment helps expand the work that I can do in these areas beyond what federal dollars will cover.

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Selected Presentations

- **Capstone Lecture — Plenary Speaker:** Risk factors of cognitive aging in older African Americans, February 2025
- **Alzheimer's Association International Conference Satellite Symposium — Peru:** Insights on building an epidemiologic cohort of older Latino adults focused on brain health: The Rush Latino Core, May 2025
- **JAX Workshop:** Principles and techniques for improving preclinical to clinical translation in Alzheimer's disease research: Social determinants of health & disparities in AD research, May 2025
- **Academy of Behavioral Medicine Research:** Special topics session #2: Health and health disparities: New findings and new challenges, June 2025
- **Age Guide, Illinois Agency on Aging Summit:** Modifiable risk factors: Keys to better brain health, September 2025
- **Gerontological Society of America James Jackson Outstanding Mentor Inaugural Award Lecture:** My path from being mentored to becoming a mentor, and everything in between, November 2025

Publication Highlights — Abbreviated

These notable publications used data from my studies:

- Mooney KE, Archer DB, Sathe A, Hohman TJ, Kadiri O, Lamar M, Arfanakis K, Yu L, **Barnes LL**, Deters KD. Associations between *APOE-TOMM40 '523* haplotypes and limbic system white matter microstructure. *Alzheimers Dement* (Amst). 2025 Apr 6;17(2):e70099. doi: 10.1002/dad2.70099.
- Fleischman DA, Arfanakis K, Leurgans SE, Evia AM, Lamar M, Kapasi A, Han SD, Poole VN, Wagner M, Bennett DA, **Barnes LL**. ARTS is associated with vascular risk factors, MCI, dementia, and stroke. *Alzheimers Dement*. 2025 Jul;21(7):e70430. doi: 10.1002/alz.70430.
- Wallace ML, Oryshkewych N, Hoepel SJW, Buysse DJ, Mentch L, Butters MA, Stone KL, Yaffe K, **Barnes LL**, Lim AS, Ensrud KE, Paudel ML, Luik A. An international multi-cohort investigation of self-reported sleep and future depressive symptoms in older adults. *Sci Rep*. 2025 Jul 4;15(1):23918. doi: 10.1038/s41598-025-07864-z.
- Peterson A, Miller EC, De Jager PL, Avila-Rieger J, Arce Rentería M, Reed A, Hohman TJ, Jefferson AL, **Barnes LL**, Arvanitakis Z, Bennett DA, Tom SE. The Association Between Age of Menopause and Hysterectomy Status and Alzheimer's Disease Risk in a Cohort of Older

White and Black Women. *J Womens Health* (Larchmt). 2025 Jul 29. Epub ahead of print. doi: 10.1177/15409996251363798.

- Kapasi A, Capuano AW, Mojdeganlou P, Bennett DA, Lamar M, Leurgans SE, Schneider JA, **Barnes LL**. Cerebrovascular Pathology and Cognitive Outcomes in Older Black Decedents. *Stroke*. 2025 Aug;56(8):2222-2232. doi: 10.1161/STROKEAHA.124.047954.
- Capuano AW, Bennett DA, Dage JL, Russ KA, Arfanakis K, Lamar M, **Barnes LL**, Schneider JA. Assessing Cognitive Decline and Dementia Risk in Black and White Older Adults With Blood Biomarkers pTau217, GFAP, NfL, and Aβ Ratio. *Neurology*. 2025 Nov 25;105(10):e214317. doi: 10.1212/WNL.0000000000214317
- Nguyen AW, Kim E, Qin W, Shin Y, Hamler T, **Barnes LL**. Organizational and Non-Organizational Religious Participation and Trajectories of Cognitive Function among Older African Americans. *J Gerontol B Psychol Sci Soc Sci*. 2025 Dec 1:gbaf238. Epub ahead of print. doi: 10.1093/geronb/gbaf238.

The Year Ahead: 2026 and Beyond

This year, the plan is to continue writing the most impactful scientific manuscripts so that we can renew one of our larger federal grants, the Minority Aging Research Study. I also hired a postdoctoral fellow last August whose research focuses on identifying multilevel, modifiable biopsychosocial risk and protective factors for cognitive decline and Alzheimer's dementia, and examining mechanisms by which these factors confer risk or resilience. Over the next year, I will prioritize supporting her research so that she can become an independent scientist and obtain her own federal funding.

With Gratitude

I am extremely grateful for the generous support from the Jesmer family that allows our work at Rush to be recognized as a premier study of cognitive aging in older African Americans and to uncover some of the most important social risk factors associated with cognitive decline and Alzheimer's disease in this population. Because of the support from this endowment and your investment in my work, I can advance the Rush mission of health equity for all people. Importantly, the work we do at Rush is recognized globally as a model of community-engaged, inclusive research that treats research participants as partners invested in a cure for a terrible brain disease.