

# Cellas Ari'ka Hayes, PhD

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## EDUCATION

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<b>2022 – Present</b>	Postdoctoral Training Neurology/ Epidemiology and Population Health	Stanford University, Stanford, CA
<b>2019 – 2022</b>	Doctor of Philosophy, Ph.D. in Pharmaceutical Sciences/Pharmacology	The University of Mississippi, Oxford, MS
<b>2020 – 2022</b>	Certification in Epidemiology and Biostatistics	The University of Mississippi Medical Center, Jackson, MS
<b>2015 – 2019</b>	Bachelor of Arts in Biology and Classics/Latin	The University of Mississippi, Oxford, MS

## RESEARCH TRAINING SUMMARY

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### Current Postdoctoral Training in Neuroepidemiology:

- Apply general and observational epidemiological methods with high-dimensional biological data, and advanced biostatistical methodology.
- Investigate vascular contributions to cognition for neurodegenerative diseases like Alzheimer's Disease and Lewy body disease.
- Focus on comorbid associations of Alzheimer's and cerebrovascular diseases in diverse populations.
- Understanding how genetics and risk factors are associated with outcomes in diverse populations (African Americans and Native Americans/Indigenous Populations).
- Aim to identify fluid biomarkers through multidimensional biological data and biostatistical techniques.

### Doctoral Epidemiology and Biostatistics Training:

- Conducted research as a Smith Scholar at the University of Mississippi Graduate Training Educational Center.
- Investigated the role of systemic inflammation in stroke incidence in the Jackson Heart Study.
- Found evidence for a threshold of systemic inflammation linked to greater stroke incidence among study participants.

### Doctoral Preclinical Research Training:

- Led NIH NINDS NRSA F31NS124302-funded research on the impact of neuroendocrine signaling (insulin-like growth factor-1) on ischemic stroke outcomes.
- Demonstrated that astrocytic insulin-like growth factor-1 signaling is essential for protecting neurons from glutamate toxicity using in vitro and in vivo transgenic models.
- Identified a neuroprotective phenotype in astrocytic IGF-1R knockout mice post-stroke.
- Examined insulin-like growth factor-1 signaling in learning and memory through rodent behavioral assay.

## PUBLICATIONS

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1. **Hayes, C. A.**, Reeves, A., Young, C., Abdelnour, C., Poston, K., Mormino, E., Odden, M. C., Younes, K. (2024). "The Impact of Arteriolosclerosis on Cognitive Impairment in Decedents without Severe Dementia from the National Alzheimer's Coordinating Center." *Accepted and in press at Alzheimer's and Dementia*.
2. **Hayes, C. A.**, Thorpe, R., Bruce, M., Bruce, B., Dharmoon, M., Heitman, E., Norris, K., Walker, B., Reneker, J. (2024) "High sensitivity C-Reactive Protein Association with Stroke Incidence: The Jackson Heart Study." *Accepted and in press at Ethnicity and Disease*.
3. **Hayes, C. A.**, Jones, R. " Empowering Early Career Researchers: The Jackson Heart Study Smith Scholars Program." *Accepted and in press at Journal of Racial and Ethnic Disparities*.
4. **Hayes, C. A.**, Headley, C. A., Nava, A. R., Vizcarra, E. A., Garcia, K. C., Mullen, M. S. M., Morales, J. F., Venida, A. C., & Follis, S. (2024) Revolutionizing Postdoctoral Training Using the Social Ecological

Model: Insights and Experiences from the Propel Scholars. *GEN Biotechnology*  
<https://doi.org/10.1089/genbio.2024.0014>

5. **Hayes, C. A.**, Moore, J.T., Headley, C.A., Berrios-Negron, A.L., Lambert, W.M. (2024) "Unlocking the Power of Virtual Networking for Early Career Researchers." *eLife* 13:e96381  
<https://doi.org/10.7554/eLife.96381>
6. **Hayes, C.A.**, Berrios-Negron, A.L., Tamir, T. *et al.* (2024) Academic ethics of mental health: the national black postdocs framework for the addressment of support for undergraduate and graduate trainees. *Neuropsychopharmacology*. (2024). <https://doi.org/10.1038/s41386-023-01787-x>
7. **Hayes, C. A.**, Ashmore, B. G., Vijayasankar, A., Marshall, J. P., & Ashpole, N. M. (2021). "Insulin-like growth factor-1 differentially modulates glutamate-induced toxicity and stress in cells of the neurogliovascular unit." *Frontiers in Aging Neuroscience*, 13, 751304.  
<https://doi.org/10.3389/fnagi.2021.751304>
8. **Hayes, C. A.** (2021). "Black scientists are not the door to diversity." *ACS Chemical Neuroscience*, 12(13), 2256-2260. <https://doi.org/10.1021/acscemneuro.1c00375>
9. **Hayes, C. A.**, Valcarcel-Ares, M. N., & Ashpole, N. M. (2021). "Preclinical and clinical evidence of IGF-1 as a prognostic marker and acute intervention with ischemic stroke." *Journal of Cerebral Blood Flow & Metabolism*, 41(10), 2475-2491. DOI: [10.1177/0271678X211000894](https://doi.org/10.1177/0271678X211000894)

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## NON-PEER REVIEWED PREPRINTS

1. **Hayes, C. A.**, Morgan, N. I., Thomas, K., Pushie, M. J., Vijayasankar, A., Ashmore, B., ... & Ashpole, N. M. (2023). "Neuronal and Astrocyte Insulin-like Growth Factor-1 Signaling Differentially Modulates Ischemic Stroke Damage." *bioRxiv*, 2023-04. Preprint access: <https://www.biorxiv.org/content/10.1101/2023.04.02.535245v1>
2. **Hayes, C. A.**, Hodges, E. L., Marshall, J. P., Logan, S., Farley, J. A., Owens, D. B., ... & Ashpole, N. M. (2021). "Adulthood Deficiency of the Insulin-like Growth Factor-1 Receptor in Hippocampal Neurons Impairs Cell Structure and Spatial Learning and Memory in Male and Not Female Mice." *bioRxiv*, 2021-08. Preprint access: <https://www.biorxiv.org/content/10.1101/2021.08.08.455596v1>

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## MANUSCRIPTS UNDER REVIEW AT PEER REVIEWED JOURNALS

1. **Hayes, C. A.**, Wilson, D., De Leon M., Morales S., Mubarak M., Ashpole, N. M. "Insulin-like Growth Factor-1 and Cognitive Health: Exploring Cellular, Preclinical, and Clinical Dimensions." *In revisions for Journal Frontiers in Neuroendocrinology*.
2. **Hayes, C. A.**, Thorpe J.R, Odden M. C., "APOE is a Driver of Alzheimer's Pathology and Age is a Driver for Vascular Neuropathology, Findings from the National Alzheimer's Coordinating Center". *Under review at Acta Neuropathologica Communications*.

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## IN-PREPARATION MANUSCRIPTS

1. **Hayes, C. A.**, Tracy, R. P., Longstreth, W. T. Jr., Fohner, A. E., Bis, J. C., Patsy, B. M., Mukamal, K. J., Seshadri, S., Satizabal, C., Djousse, L., Cronje, T., Lopez, O., & Odden, M. C. Longitudinal Change in Neurodegenerative Biomarkers and Cognitive and MRI Outcomes: The Cardiovascular Health Study. *In final stages of preparation for collaboration for observational cohort meta-analyses*
2. **Hayes, C. A.**, Levendovszky, S. R., Buchwald, D. S., Verney, S., Shibata, D. K., Zhang, Y., Ali, T., Odden, M. C., & Suchy-Dicey, A. "APOE Associations with Longitudinal Cerebrovascular Disease Neuroimaging Biomarkers and Brain Imaging: The Strong Heart Study." *In preparation*.
3. **Hayes, C. A.**, Prabhu, D., Hodges, EL., Marshall, JP., Khan, S., Ashmore, BG., Ashpole, NM. "Astrocytic Insulin-like Growth Factor-1 Receptor Deficiency Alters Cognition and Behavioral in a Sex-Dependent Manner." *In preparation*.
4. De Leon, M., **Hayes, C. A.**, Ashmore, BG., Morgan, NI., Martin, A., Stewart, JA., Ashpole, NM. "Advanced Glycation End Products Role in Metabolic Aging and Cognition in Early Life." *In preparation*.
5. Marshall, JP., **Hayes, C. A.**, Blackburn, K., Ashpole, NM. "Chronic Early Life Exposure of THC in Male Mice Accelerates Mid-Life Cognitive and Behavioral Deficits." *In preparation*.

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## FUNDING/FELLOWSHIPS (Ongoing and Completed)

- **HABS-HD HESP Program Fellowship (2024-2026)**
  - “APOE Genotype, Cerebral Small Vessel Disease, and Cognitive Impairment: Investigating Interactions and Disparities in Brain Health Among Diverse Populations” (U19 AG078109)
  - Competitive supplemental fellowship supporting research for 2 years.
  - Award Amount: \$73,000 for 1 year (09/2024 – 08/2025). Burroughs Wellcome Fund
- **Postdoctoral Diversity Enrichment Program (PDEP) (2024-2027)**
  - “The Contribution of Alzheimer’s Disease to White Matter Hyperintensities” (1267001)
  - Competitive fellowship providing research and professional development funds for 3 years.
  - Award Amount: \$60,000 for 3 years (09/2024 – 08/2027)
- **Burroughs Wellcome Fund (2024)**
  - National Black Postdocs Association Emergency Support Program Funds.
  - Award Amount: \$50,000 for discretionary funds related to the Emergency Support Program.
- **Stanford Propel Fellowship (2022-2024)**
  - Competitive 2-year postdoctoral fellowship providing salary, research, and supplemental funds, along with professional development opportunities.
  - Award Amount: \$200,000 for 2 years (12/2022 – 11/2024)
- **Ruth L. Kirschstein National Research Service Award (NRSA) (2022)**
  - Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (NIH F31NS124302). “Cellular Mechanisms of Insulin-like Growth Factor-1 Neuroprotection with Ischemic Stroke”
  - Award Amount: \$36,115 (04/2022 – 11/2022)
  - *1st Black trainee to receive this award at UM and 3rd trainee in history to receive this award at UM (1985-1987-2022).*
- **Graduate School Counsel Research Grant (University of Mississippi) (2019)**
  - Award Amount: \$1,000 for 1 year (08/2019 – 07/2020)

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## PENDING FUNDING/FELLOWSHIPS

- **K99/R00 NIH NIA MOSAIC**
  - Transition to Independence Award (1K99AG090696-0)
  - “The Contribution of Alzheimer’s Disease Pathology to White Matter Hyperintensities in Diverse Populations”
  - Award Amount: (\$974,381 for 5 years, 07/2025 – 05/2030)
- **R01 Diversity Supplement (R01AG062568-02W1)**
  - Competitive fellowship providing research and professional development funds for 3 years.
  - “*Deprescribing Cardiovascular Medications among Persons with and without Alzheimer’s Disease and Related Dementias in Long-Term Care*”
  - Award Amount: \$188,174 for 2 years, 10/2024 – 09/2026
- **NIH Loan Repayment Program**
  - Competitive fellowship providing repayment of student loans.
  - “Evaluating the Contributions of Alzheimer’s Disease Pathology to White Matter Hyperintensities Using Genetic and Proteomic Approaches.”
  - Award Amount: \$100,000 for 2 years, (07/2025 – 06/2027)

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## ADDITIONAL RESEARCH EXPERIENCE

<b>2018 - 2019</b>	<b>Research Student Department of Biology</b> The University of Mississippi, University, MS <ul style="list-style-type: none"> <li>• Organize mycorrhiza database.</li> <li>• Perform meta-analysis of mycorrhiza database analysis.</li> <li>• Maintain and generate new information from publications for mycorrhiza database</li> </ul>
<b>2017</b>	<b>International Research Experience for Students (IRES)</b> NSF Funded IRES in Poland <ul style="list-style-type: none"> <li>• Organizer of first International Conference for Polish Botanical Society at Politechnika Bialostocka</li> <li>• Perform various pharmacognosy and chemistry laboratory techniques.</li> </ul>

- Analyzed ectomycorrhiza fungi from various plants

## PROFESSIONAL DEVELOPMENT PROGRAMS AND HONORS

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2024	<b>NIH National Institute of Aging Butler Williams Scholars Program.</b> The Butler-Williams Scholars Program provides unique opportunities for junior faculty, researchers new to the field of aging, and postdoctoral fellows to gain insight about aging research. The program offers a variety of perspectives and includes presentations, seminars, and interactive small group activities and discussions.
2024 - Present	<b>SEE-Diversity (Scholarships to Enhance and Empower Diversity - SEED).</b> SEED is a privately funded program whose goal is to increase the successful transition to and retention of diverse, early career neuroscientists into academic positions. The program will provide diverse Ph.D. neuroscientists with long-term mentoring and professional enrichment, with a particular emphasis on assistance with preparation, submission and revision of career development and research grant applications to NSF and NIH.
2024	<b>NIMHD Health Disparities Research Institute Scholar.</b> NIMHD's Health Disparities Research Institute (HDRI) supports the career development of promising early-career minority health and health disparities research scientists and stimulates research in the disciplines supported by health disparities science. The HDRI features lectures on minority health and health disparities research, small group discussions, mock grant review, and seminars.
2024 – Present	<b>BRAINS (Fellow/Affiliate).</b> “Broadening the Representation of Academic Investigators in NeuroScience. BRAINS is an NIH-NINDS-funded national program that seeks to support the success of early-career, post-PhD neuroscientists from URGs, specifically racial and ethnic minorities and persons with disabilities ( <a href="http://www.BRAINS.washington.edu">www.BRAINS.washington.edu</a> ).
2023 – Present	<b>Pathways to Neuroscience at Stanford University.</b> The program aims to foster belonging, excellence, and leadership in the next generation of neuroscience trainees especially for those who classify as underrepresented minorities. Program provides peer-to-peer mentoring groups, faculty one-on-one mentoring, and a minicourse to enhance knowledge of diversity and inclusion concepts and practices.
2022 – 2024	<b>Neuroscience Scholars Program (Fellow).</b> The Neuroscience Scholars Program (NSP) is a two-year online training program open to underrepresented graduate students and postdoctoral researchers. Professional development and mentoring opportunities are offered throughout the two-year duration of the program.
2022	<b>Marine Biological Laboratory Summer Program in Neuroscience, Excellence and Success (SPINES) Program.</b> The course attracts 20 leading faculty from across the country to teach our 15-20 students in a 3-week intensive immersion experience dedicated to creating and sustaining an outstanding diverse workforce in neuroscience.
2022	<b>Neuroscience Scholars Program (Associate).</b> The Neuroscience Scholars Program (NSP) is a two-year online training program open to underrepresented graduate students and postdoctoral researchers. Professional development and mentoring opportunities are offered throughout the two-year duration of the program.
2020-2022	<b>UM Southern Regional Education Board Program (UM SREB).</b> The University of Mississippi gives 6 fellowships to students enrolled in doctoral programs. The award also requires scholars to attend the Institute on Teaching and Mentoring Conference annually.

## RESEARCH POSTER AND ORAL PRESENTATIONS

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| 2024 | <b>Hayes, C. A.,</b> Tracy, R. P., Longstreth, W. T. Jr., Fohner, A. E., Bis, J. C., Patsy, B. M., Mukamal, K. J., Seshadri, S., Satizabal, C., Djousse, L., Cronje, T., Lopez, O., & Odden, M. C. “Longitudinal Changes in Neurodegenerative Biomarkers and Their Associations with Cerebrovascular and Cognitive Outcomes in the Cardiovascular Health Study.” <b>Poster Presentation at the Burroughs Wellcome Fund Conference</b> |
| 2024 | <b>Hayes, C. A.,</b> Reeves, A., Young, C., Abdelnour, C., Poston, K., Odden, MC., Mormino, E., Younes, K. " Examining Vascular Pathologies, CNS Barrier Changes, and their Impact on Harmonized Cognitive Measures." <b>Poster Presentation at the Gordon Research Conference CNS Barriers</b>   |

- 2024 Hayes, C. A.**, Reeves, A., Young, C., Abdelnour, C., Poston, K., Odden, MC., Mormino, E., Younes, K. "Examining Vascular Pathologies, CNS Barrier Changes, and their Impact on Harmonized Cognitive Measures." **Poster Presentation at the Gordon Research Seminar CNS Barriers**
- 2024 Hayes, C. A.**, Thorpe, R., Bruce, M., Bruce, B., Dhamoon, M., Heitman, E., Norris, K., Walker, B., Reneker, J. "High sensitivity C-Reactive Protein Association with Stroke Incidence: The Jackson Heart Study." **Poster Presentation at the American Heart Association EpiLifestyle Meeting**
- 2023 Hayes, C. A.**, Reeves, A., Young, C., Abdelnour, C., Poston, K., Odden, MC., Mormino, E., Younes, K. "Exploring the Interplay of Vascular Pathologies, Alzheimer's Disease, and Lewy Body Disease on Neuropsychological Measures." **Poster Presentation at the Society for Neuroscience Diversity Session**
- 2022 Hayes CA**, Morgan NI, Thomas KC, Pushie MJ, Vijayasankar A, Ashmore BG, Wontor K, De Leon MA, Ashpole NM. "Uncovering IGF-1 Signaling Neuroprotective Mechanisms Responsible for Neuroprotection Following Stroke." **Poster Presentation at the Society for Neuroscience Diversity Session**
- 2022 Hayes CA**, Morgan NI, Thomas KC, Pushie MJ, Vijayasankar A, Ashmore BG, Wontor K, De Leon MA, Ashpole NM. "Uncovering IGF-1 Signaling Neuroprotective Mechanisms Responsible for Neuroprotection Following Stroke." **Poster Presentation at the Society for Neuroscience General Session**
- 2022 Hayes CA**, De Leon MA, Morgan NI, Ashmore BG, Vijayasankar A, Ashpole NM. "Uncovering the IGF-1 Signaling Mechanisms Responsible for Neuroprotection Following Stroke." **Oral Presentation for Dissertation Research Prospectus**
- 2021 Hayes CA**, Ashmore BG, De Leon MA, Morgan NI, Stewart JA, Ashpole NM. "AGE/RAGE Signaling Impacts on Healthspan: Early-life Cognitive Assessments." **Poster Presentation at University of Mississippi Glycore Mid-Year Biology Conference**
- 2021 Hayes CA**, Ashmore BG, Vijayasankar A, Marshall JP, Ashpole NM. "Neuroendocrine Modulation Alters Cellular Protection in the Neurogliovascular Unit." **Poster Presentation at the Society for Neuroscience**
- 2021 Hayes CA**, Ashmore BG, De Leon MA, Morgan NI, Stewart JA, Ashpole NM. "AGE/RAGE Signaling Impacts on Healthspan: Early-Life Cognitive Assessments." **Oral Presentation at the University of Mississippi Glycore Biology Conference**
- 2021 Hayes CA**. "Cannabigerol, Cognition, and Lifespan." **Oral Presentation for Original Research Proposal Qualifying Exam**
- 2021 Hayes CA**, Ashmore BG, Vijayasankar A, Hodges EL, Marshall JP, Ashpole NM. "Neuroendocrine Modulation Alters Cellular Function in the Neurogliovascular Unit and Learning and Memory In Vivo." (Received 1st place for virtual poster competition.) **Virtual Poster Presentation for Black in X Conference**
- 2019 Hayes CA**, Hodges EL, Marshall JP, Ashpole NM. "Reductions in Hippocampal IGF-1 Signaling in Adulthood Negatively Regulates Neuron Structure and Cognition." **Poster Presentation at the Society for Neuroscience**
- 2019 Hayes CA**, Hodges EL, Marshall JP, Ashpole NM. "Reductions in Hippocampal IGF-1 Signaling in Adulthood Negatively Regulates Neuron Structure and Cognition." **Poster Presentation at the Society for Neuroscience**
- 2018 Hayes CA**, Ashpole NM. "Reductions in IGF-I Receptor in the Adult Hippocampus Impairs Learning and Memory." **Oral Presentation at the Annual Biomedical Research Conference for Minority Students (ABRCMS)**
- 2018 Hayes CA**, Ashpole NM. "Aspects of IGF-1 and the Aging Brain." **Oral Presentation at the University of Mississippi for 50 Congressional Delegates**
- 2018 Hayes CA**, Ashpole NM. "Reductions of the IGF-1 Receptor in the Adult Hippocampus Impairs Learning and Memory." (Received Award of 2nd Place in Cell and Molecular Biology Division.) **Oral Presentation at the Mississippi Academy of Sciences**
- 2018 Hayes CA**, Ashpole NM. "Reductions of the IGF-1 Receptor in the Adult Hippocampus Impairs Learning and Memory." (Received Award of Overall 5th Place out of 208 posters.) **Poster Presentation at the Mississippi Academy of Sciences**

## COAUTHORED PRESENTATIONS

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- 2022** De Leon MA, **Hayes CA**, Ashmore BG, Morgan NI, Stewart JA, Ashpole NM. "Receptor for Advanced Glycation End Products Signaling Impacts on Healthspan: Early-life Behavioral Assessments." **Poster Presentation at the American Aging Association**
- 2022** Ashmore BG, **Hayes CA**, De Leon MA, Morgan NI, Stewart JA, Ashpole NM. "Receptor for Advanced Glycation End Products Signaling Impacts on Healthspan: Early-life Behavioral Assessments." **Poster Presentation at the University of Mississippi Glycero Conference**

## INVITED ORAL PRESENTATIONS (NON-SERVICE)

- 2024** "Empowering Yourself Through Opportunities and Futuristic Goals" Invited Oral for Stanford SURPAS
- 2024** Oregon Health Science University Department of Neurology Neuroscience Future Invited Oral Seminar Exploring the Interplay of Vascular Pathologies, Alzheimer's Disease, and Lewy Body Disease on Harmonized Cognitive Measures
- 2023** "Self-Discovery Through Opportunity"  
Oral Presentation at UC Davis Graduate Group Integrated Physiology DEI Symposium
- 2023** Graduate School at the University of Mississippi in the School of Pharmacy  
Zoom Oral Presentation for UM SOP for HBCU Rust University
- 2023** "Success Looks like Us."  
Zoom Oral Presentation for the Mid-Atlantic Neuroscience Diversity Scholars (MiNDS) Program
- 2022** "Transforming Your Graduate School Career for Success"  
Panel/Oral Presentation at the NIH Blueprint Enhancing Neuroscience Diversity through Undergraduate Research Education Experiences (BP-ENDURE) 12th Annual Meeting

## TEACHING EXPERIENCE

Philosophy: My teaching philosophy is rooted in the belief that students thrive when given autonomy and the opportunity to take academic risks in a supportive, student-centered environment. I aim to create spaces where students can engage actively, make mistakes, and explore creative problem-solving beyond the traditional methods of learning. As a Grant Writing Coach at the Stanford Grant Writing Academy, I serve as the lead organizer and curriculum developer for grantsmanship and professional development for the Stanford REACH postbaccalaureate program. In this role, I have developed active learning modules and templates for key aspects of grant writing and career development, including the NSF-GRFP, diversity supplements, and NIH F applications. I also guide participants in creating career development training plans, crafting effective mentoring teams, writing NIH biosketches, understanding NIH funding types and acronyms, drafting personal statements for doctoral programs, and even learning to write recommendation letters for themselves. These didactics include active learning, template creation, peer-review, and direct hands-on experience with reviewing dozens of applications and mentoring a diverse set of trainees.

<b>2023</b>	- Stanford Grant Writing Academy Grant Coach	Ongoing
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars Personal Statement Peer Review	1.5 hours
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars Personal Statement	1.5 hours
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars Choosing Graduate School	1.5 hours
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars CV & Cover Letters	1.5 hours
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars NSF-GRFP & NIH Specific Aims	1.5 hours
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars Organization Research Skills	1.5 hours
<b>2024</b>	Stanford Grant Writing Academy REACH Postbac Scholars Introduction to GWA	1.5 hours
<b>2024</b>	Clinical Neuroscience Immersion Experience (CNI-V) at Stanford University- Introduction to Neurodegenerative Disease	1 hour
<b>2024</b>	Clinical Neuroscience Immersion Experience (CNI-V) at Stanford University- Introduction to Neurodegenerative Disease	1 hour
<b>2024</b>	Education Unlimited Stanford (High School Neuroanatomy)	54 hours
<b>2024</b>	Education Unlimited UCLA (Middle School Genetics)	45 hours
<b>2024</b>	Education Unlimited UC Berkley (Middle School Neuroanatomy)	45 hours

2024	Education Unlimited Stanford (High School Neuroanatomy)	54 hours
2024	Education Unlimited UCLA (High School Neuroanatomy)	54 hours
2024	Education Unlimited UC Berkley (High School Neuroanatomy)	54 hours
2024	Stanford Grant Writing Academy REACH Postbac Scholars NSF-GRFP	1.5 hours
2024	Stanford Grant Writing Academy REACH Postbac Scholars Organization Skills for Maximizing Research Productivity	1.5 hours
2024	Stanford Grant Writing Academy REACH Postbac Scholars NSF-GRFP	1.5 hours
2024	Stanford Grant Writing Academy REACH Postbac Scholars Biosketch	1.5 hours
2024	Stanford Grant Writing Academy REACH Postbac Scholars Letter of Recommendations	1.5 hours
2024	Stanford Grant Writing Academy REACH Postbac Scholars Personal Statement Writing	1.5 hours
2023	Stanford Grant Writing Academy REACH Postbac Scholars Funding Mechanisms	1.5 hours
2023	Stanford Grant Writing Academy Career Development Plan	1.5 hours
2023	Clinical Neuroscience Immersion Experience (CNI-V) at Stanford University- Introduction to Neurodegenerative Disease	1 hour
2023	Education Unlimited Stanford (High School Neuroanatomy)	54 hours
2023	Education Unlimited Stanford (Middle School Genetics)	45 hours
2022	Biomolecular Sciences II (Professional Pharmacy Students-P1)	1 hour
2022	Physiology: CNS Cell Types Function (Undergraduate Students)	1 hour
2022	Microbiology: Allied Health Undergraduate Nursing Students	1 hour
2022	Enrolled in Teaching in Pharmacology Course Graduate Elective	1 hour

## HONORS, AWARDS, AND NOTABLE FEATURES

2024/2025	NEUROYES, the University of Rochester Young Neuroscience Investigator Extramural Seminar Series. Visiting speaker as guest of the Del Monte Institute for Neuroscience.
2024	Oregon Health Science University Department of Neurology Neuroscience Future Invited Seminar – Invited lecture series which is designed to spotlight junior scientists and clinician-scientists.
2023	Bright Focus Foundation Alzheimer’s Disease Fast Track Program - The Alzheimer’s Fast Track workshop is designed for graduate students, postdoctoral fellows, or other early-career scientists focused on Alzheimer’s disease research to participate in an immersive learning experience that accelerates their knowledge, expertise, and visibility in this exciting field.
2023	Stanford Office of Postdoctoral Affairs Justice, Equity, Diversity, and Inclusion Champion Award- Recognition of current Stanford University postdoctoral scholars who have served as champions of initiatives, activities, or efforts that advance justice, equity, diversity, and inclusion at Stanford and beyond
2023	The National Diversity in STEM Conference (SACNAS) Postdoc Leadership Institute Acceptance: PLI is a two-part workshop for postdocs looking to develop their leadership skills and ability to bring their whole selves – including their culture – to work as an asset
2023	Indiana University Purdue University Indianapolis Pathways to Professoriate: Future Faculty Forum -a two-day symposium engaging historically underrepresented graduate students, post-doctoral scholars, and faculty in interactive workshops, panels, and candid conversations around successfully transitioning to a faculty role
2023	Advanced Psychometric Methods in Cognitive Aging Research Conference (ΨMCA)- Highly competitive acceptance to conference that promotes the use of state of the art psychometric and related data analytic methods in cognitive aging research.
2023	University of Mississippi Doctoral Graduating Class Marshall
2022 – 2024	Neuroscience Scholars Program Fellow-awarded by SfN, a two-year program that provides scientific and professional development opportunities for neuroscience trainees. 1 of 18 fellows chosen
2022	Admitted into Stanford Postdoctoral Recruitment Initiative in Sciences and Medicine (PRISM)
2021/2022	Recipient of Marine Biological Laboratory Summer Program in Neuroscience, Excellence and Success (SPINES) Program-The course attracts 20 leading faculty from across the

- country to teach our 15-20 students in a 3-week intensive immersion experience dedicated to creating and sustaining an outstanding diverse workforce in neuroscience.
- 2021** TPDA, Trainee Professional Development Award, awarded by SFN, Society for Neuroscience, to attend SfN2021 Conference.
- 2021** The US-Canada Regional Committee of IBRO (International Brain Research Organization) Fellowship
- 2021** University of Mississippi School of Pharmacy Department of Biomolecular Sciences Marvin Davis Pharmacology Award
- 2021** Rho Chi, The Academic Honor Society of Pharmacy
- 2021** Honorable Mention-The National Academy of Sciences Engineering and Medicine Ford Foundation Pre-Doctoral Fellowship (NASEM Ford)
- 2020** Neuroscience Scholars Program Associate-awarded by SfN, a two-year program that provides scientific and professional development opportunities for neuroscience trainees from underrepresented and diverse backgrounds
- 2020** Graduate School Counsel Research Grant from the University of Mississippi-competitive award given in the amount of \$1,000
- 2020** Honorable Mention-National Science Foundation Graduate Research Fellowship Program (NSF-GRFP)
- 2019** TPDA, Trainee Professional Development Award, awarded by SfN, Society for Neuroscience, to attend SFN2019 Conference.
- 2019** UM Southern Regional Education Board Program (UM SREB): The University of Mississippi gives 6 fellowships to students enrolled in doctoral programs. Awards include full tuition waiver and supplemental stipend.
- 2019** Ole Miss Greek Man of the Year: Highest award given to a male member of the University of Mississippi Greek Counsel
- 2019** Ole Miss Who's Who Selection 2018/2019: 200 hundred students are selected to be the University of Mississippi's Who's Who Award.
- 2018** Student Travel Award via Annual Biomedical Research Conference for Minority Students (ABRCMS) 2018
- 2017** Distinguished Research Citation Award at University of Mississippi School of Pharmacy Spring 2017-Given to an undergraduate student who is nominated by faculty for research in School of Pharmacy
- 2017** University of Mississippi Pulse Leadership Conference  
A Mildred Classics Scholarship Recipient-Scholarship amount of \$3500, given to a student who excels academically in the Classics Department
- 2017** Classics Foundation Scholarship- \$2500 Award in support from the McDonnell Foundation Scholarship
- 2016** Dr. Pepper SEC Study Abroad Scholarship Recipient-Scholarship amount of \$2000 awarded to a student who is studying abroad for at least 4 weeks
- 2016** Global Engagement Scholarship Recipient-Scholarship amount of \$1000 given to student study abroad for at least 4 weeks, essay-based scholarship
- 2015** The University of Mississippi Luckyday Scholarship Recipient- Scholarship amount of \$5000 given to undergraduate at the University of Mississippi
- 2015** Chancellor's Leadership Scholarship Recipient-Scholarship amount of \$1000 given to Freshman who exhibits exceptional leadership qualities in high school
- 2015** Bledsoe Scholarship Recipient-Scholarship amount of \$1500 given to first time undergraduate students who maintain a 3.0 GPA
- 2015** Academic Excellence Scholarship Recipient- Scholarship amount of \$1500 given to a student who scores 25 of ACT in high school.

## **NOTEWORTHY FEATURES/SCIENCE COMMUNICATION OUTREACH LINKS**

- 2023** NIH NINDS Building Up the Nerve Podcast Feature:  
<https://www.buzzsprout.com/558574/13248013>
- 2023** Doctoral Commencement Story: <https://journey.olemiss.edu/2023/05/10/first-gen-fearless-of-failure/>



- 2022** NIH F31 Story: First Trainee to Receive Award in 35 Years  
<https://news.olemiss.edu/pharmacology-graduate-student-building-a-legacy-through-research/>
- 2022** Alumni Advice to UM Class of 2022  
<https://news.olemiss.edu/alumni-offer-advice-to-new-graduates/>
- 2021** Sci Communication with Dr. Sherry Nouraini Podcast/Live Twitter
- 2021** Science Communication with Adam MA Simpson  
<https://www.youtube.com/watch?v=pfT0XKrlmp4>
- 2021** Science Communication with Adam MA Simpson  
<https://www.youtube.com/watch?v=4jQvKMOVnE8&t=1s>
- 2019** University of Mississippi Admissions Department Recruiting Video:  
<https://vimeo.com/375464026>
- 2019** Commencement Highlight: *Beating the Odds Cellas Ari'ka Hayes*  
<https://news.olemiss.edu/beating-the-odds/>
- 2017** Feature in *Mississippi Today* Newspaper: *Summer Student Spotlight: Into the wild for the cure to cancer*  
<https://mississippitoday.org/2017/07/21/summer-student-spotlight-into-the-wild-for-the-cure-to-cancer/>

## PROFESSIONAL APPOINTMENTS

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- 2024** **Education Unlimited Curriculum Developer**
- Update course curriculum for high school Neuroanatomy with laboratory exercises
- 2023 – Present** **Stanford Grant Writing Academy Coach**
- Leading the REACH Postbac Program
  - Lecture on trainee fellowships and professional development
- 2023 – Present** **Education Unlimited Instructor**  
Stanford University
- Teach Neuroanatomy to high school students
  - Teach Genetics to middle school students
- 2019 – 2021** **University of Mississippi Graduate School Ambassador**  
The University of Mississippi, University, MS
- Participate and organize recruiting events
  - Serve as a liaison for students, faculty, and staff
- 2016 – 2019** **UofM Pre-College Programs Counselor**  
The University of Mississippi, University, MS
- Participate and organize leadership events; Serve as a liaison for students, faculty, and staff
  - Counselor for UofM competitions (UMAIT, BrainBrawl, Mathcounts, Science Olympiad, etc.)
- 2018** **Ole Miss Summer College Counselor**  
The University of Mississippi, University, MS
- Serve as a counselor to high school students

## LEADERSHIP AND ORGANIZATIONS

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- 2024 – Present** **Stanford Black Postdocs Association (SBPA)**  
Financial Chair
- 2023 – 2024** **Stanford Black Postdocs Association (SBPA)**  
Co-President  
*Manage semester of event related to Black PDs scientific and professional development; Leader executive board team*
- 2023 – Present** **National Black Postdocs Association Subcommittee Chair of Emergency Support Program (NBPA ESP)**  
Inaugural Support Chair

*Establish pipeline of emergency support for trainees at the national; Created a mental health manual to be of assistance at all academic levels; Lead NBPA ESP commentary publication*

**2022** **Minority Association of Successful Scientists (MASS)**  
 Founder of organization at the University of Mississippi and Inaugural President  
*This organization serves a bridge for graduate students interested in biomedical careers. It provides a unique opportunity to gain service hours along with professional development and networking through invited government, industry, and academic speakers.*

**2018** **Minority Association of Premedical Students (MAPS)**  
 Founder of organization at the University of Mississippi and Inaugural Vice President  
*This organization serves an effort to provide professional and social structure and an environment to increase matriculation of minorities into the health-related field of their choice.*

## SERVICE

		<b>300+ Hours</b>
<b>Year</b>	<b>Event</b>	<b>Hours</b>
<b>2024</b>	Mentoring high school students from CNV Program	7 hours
<b>2023</b>	Table Moderator at Society for Neuroscience Resilience and Resubmission NIH NINDS Building Up the Nerve Podcast	1 hour
<b>2023</b>	Postdoctoral Panel Speaker Canary Cancer Research Education Summer Training (CREST) Program	1 hour
<b>2023</b>	Clinical Neuroscience Immersion	6 hours
<b>2023</b>	Experience Plus (CNI-X+) at Stanford University Mentor Stanford Summer Research Program (SSRP) Application Reviewer	3 hours
<b>2021 – 2023</b>	Letters to a PreScientist	5 hours
<b>2023</b>	What is Graduate School	1 hour
<b>2022</b>	Black in Neuro Personal Statement Workshop	5 hours
<b>2022</b>	UM Speaker's Edge Judge	2 hours
<b>2021</b>	University of Massachusetts Amherst STEM Talk	2 hours
<b>2020 – Present</b>	Diversity Equity and Inclusion School of Pharmacy Committee, Graduate Student Representative	12 hours
<b>2021</b>	Guide to College- First Generation College Student Presentation/STEM given to Byhalia High School-Keynote Speaker	2 hours
<b>2021</b>	Guide to College- First Generation College Student Presentation/STEM given to Murrah High School-Keynote Speaker	1 hour
<b>2020</b>	Keynote Student Speaker on "How to Get to Graduate School" for McNair Scholars	1 hour
<b>2018 – 2019</b>	Ole Miss Ambassador	110 hours
<b>2019</b>	Guide to College- First Generation College Student Presentation given to Sigma Beta Club-Keynote Speaker	1 hour
<b>2019</b>	Division of Outreach First Generation High School Student Keynote Speaker	1 hour
<b>2019</b>	UofM MOST Conference Panel Guest Speaker	3 hours
<b>2019</b>	Division of Outreach First Generation High School Student Keynote Speaker	1 hour
<b>2019</b>	Bramlett Elementary STEM Club	10 hours
<b>2016 – 2018</b>	Oxford Highway Pickup	12 hours
<b>2016 – 2018</b>	Competition Corps Events	90 hours

2016 – 2018	Big Event	15 hours
2018	Out of the Darkness Suicide Awareness Walk	2 hours
2018	Minority Association of Premedical Students Health Walk	1 hours
2017	Multiple Sclerosis Bike Race	6 hours
2017	Oxford Boys and Girls Club Fall Festival	3 hours
2017	Oxford Intermediate Mentoring	10 hours
2016	Autism Walk	1 hour
2016	Relay for Life	2 hours
2016	Christ Temple Halloween Carnival	4 hours
2015	Green Grove Recycling	3 hours
2015	Fall Festival at Crenshaw Elementary	5 hours

## MENTORSHIP HIGHLIGHTS

Duration of Mentorship	Mentee	Mentorship Affiliation
November 2023 – Present	Joyce Milandu, BS	BP-ENDURE Program <i>Was admitted to NIH postbac program</i>
November 2023 – Present	Shylyn Collier, BS	BP-ENDURE Program <i>Was admitted to several PhD programs</i>
November 2023 – Present	Milen Dawit, MD	Black in Neuro Mentoring Program
September 2023 – November 2023	Alby Joseph, BS	Stanford Grant Writing Academy
September 2023 – March 2024	Maelah Robinson-Castillo, BS	Black in Neuro
March 2023 – January 2024	Nailah Cannon	CNI-X+ Stanford Program <i>Was admitted to several colleges</i>
November 2022 – March 2024	Almarely Berrios, MS	Neuroscience Scholars Program <i>Was admitted to Stanford PRISM program</i>
November 2022 – Present	Immanuela Enwesi	BP-ENDURE/MINDS Program
September 2022 – 2023	Emily Rasmussen, BS	NSF GRFP Grant Writing Workshop <i>Was awarded NSF GRFP</i>
August 2022 – 2023	Stephen Weirdu	BIN Personal Statement Workshop
August 2022 – 2023	Nana Dark Oaquis	BIN Personal Statement Workshop
2021 – 2023	Brandon G. Ashmore, BS	Undergraduate Researcher <i>Admitted to UM Pharmacy School</i>
2020 – Present	Voke Tonia Aminoe, PharmD	Graduate Mentor
2018 – 2023	Olivia Burchfield	Lott Leadership Program <i>Admitted to UAB</i>
2022 – Spring 2023	Kamryn Thomas, BS	McNair Scholar Research Program
2020 – 2022	Akshaya Vijayasankar, BA	Undergraduate Researcher <i>Was admitted to UMMC</i>
2022 – 2023	Nyah I. Morgan, BA	Undergraduate Researcher
2022	Destiny Wilson, BS	Undergraduate Researcher <i>Was admitted to medical school</i>
Summer 2021	Caria Carter, BA	MS INBRE Program
2019-2022	Rachel Boone, BA/MS	Graduate Researcher

## MEMBERSHIP AND SOCIETIES

- **ISTAART Alzheimer's Association:** 2023 – Present
- **Gerontological Society of America:** 2024 – Present
- **Society for Neuroscience:** 2019 – Present
- **National Black Postdocs Association:** 2022 – Present
- **Stanford Black Postdocs Association:** 2022 – Present
- **American Heart Association:** 2020-2021; 2022-2023

- **American Chemical Society:** 2021 – 2023
- **Rho Chi, the Academic Honor Society of Pharmacy:** 2021 – 2022
- **Interdisciplinary Association for Population Health Science:** 2020 – 2022
- **The National Society of Collegiate Scholars:** 2016 – 2019
- **The Society of Collegiate Leadership and Achievement:** 2016 – 2019
- **Eta Sigma Phi Honor Society:** 2016 – 2019