

## **Cory J. White, Ph.D.**

Postdoctoral Research Fellow | NIH Blueprint D-SPAN K00 Fellow

Johns Hopkins University School of Medicine

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Google Scholar: <https://scholar.google.com/citations?user=qJfanigAAAAJ&hl=en>

## **EDUCATION**

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**Ph.D.**, Biochemistry, Cellular & Molecular Biology- Biological Chemistry; March 26,2021  
Johns Hopkins University School of Medicine, Baltimore, MD

**B.S.**, Biochemistry and Molecular Biology with Departmental Honors, Summa Cum Laude; May 10,2014  
Mercer University, Macon, GA

## **RESEARCH EXPERIENCE**

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**Postdoctoral Research Fellow, Johns Hopkins University School of Medicine – Retrovirus Laboratory, Department of Molecular and Comparative Pathobiology (April 2021 – present)**

**Mentor: Dionna W. Williams, Ph.D.**

- Leading two projects characterizing the metabolic consequences of HIV infections and antiretroviral therapy in the brain.
- Earned a NINDS-funded D-SPAN K00 award and Johns Hopkins TRNAMH pilot award to fund postdoctoral fellowship and related projects.
- Earned NINDS Loan Repayment Program award to help support acquisition of preliminary data in preparation for independence.
- Collaborating with a team of investigators across multiple departments at Johns Hopkins University School of Medicine that are a part of a Central Nervous System Scientific Working Group within the Johns Hopkins Center for AIDS Research focusing on metabolic clinical markers of cognitive decline due to HIV infection and antiretrovirals resulting in one co-authored publication.
- Collaborating with the AIMS Core/Service Center and consulting the laboratory of Dr. Namandjé Bumpus and on training in acquiring MALDI imaging data using Bruker timTOF and rapiFlex platforms.
- Mentoring undergraduate in MALDI data analysis, NSF grant writing, and graduate school program application submission.
- Established mouse protocols and IACUC clearance for our laboratory and maintaining virally infected C57BL/6J mice.
- Mentoring research technologist in mouse husbandry and related techniques for *in vivo* metabolic study using mouse model of active HIV infection.
- Established protocols and received university approval for use of radiolabeled substrates and developing protocols for use of chimeric EcoHIV virus for the Williams laboratory.

**Doctoral Candidate, Johns Hopkins University School of Medicine – Center for Metabolism and Obesity Research,**

**Department of Biological Chemistry (May 2015 – March 2021)**

**Mentor: Michael J. Wolfgang, Ph.D.**

- Led two neuro-metabolic biochemistry projects within the laboratory. One focused on bioenergetics of fatty acid oxidation in the mammalian nervous system (published in *MCB*) and the other focused on novel diet-dependent transcriptional regulation within the nervous system (published in *JBC*).
- Collaborated with investigators in the Department of Anesthesiology and Critical Care Medicine (Dr. Susana Scafidi), the Department of Physiology (laboratory of Dr. Rajini Rao with Ph.D. candidate Allatah Mekile) and the Department of Radiology (Dr. Kristine Glunde).
- Trained and mentored multiple graduate students and a post-baccalaureate student in relevant experimental protocols involving mouse husbandry and metabolic biochemistry, provided insight and editing of fellowship applications, and edited graduate admission statements.
- Submitted seven fellowship applications for project and travel funding resulting in four awarded (NIH Blueprint D-SPAN F99, NINDS NRSA, and SfN NSP) and one honorable mention (NSF GRFP).
- Maintained multiple C57BL/6 genetic mouse lines and generated brain-specific conditional knockout mice by crossing to tissue specific Cre-driver lines.
- Attended four and presented at three international conferences regarding molecular and cellular lipid biochemistry and neuroscience. Secured total independent travel funding for three and partial-travel funding for one international conference.
- Generated overexpression and inducible genetic knockout mice using adeno-associated virus retroorbital injections *in vivo*.
- Profiled metabolic phenotypes of genetic mouse lines.
- Performed murine surgeries using brain-specific conditional knockout mice with loss of fatty acid oxidation to ascertain arterial and venous serum in proximity to brain to determine blood-brain barrier integrity based on metabolic profile.
- Developed protocol for the laboratory for the isolation of primary astrocytes from transgenic and knockout mouse pups.
- Prepared primary astrocytes samples from conditional knockout mice for <sup>1</sup>H NMR metabolomics.
- Performed brain microdissections and peripheral tissue dissections from conditional and constitutive knockout mice.
- Prepared brain regions from conditional knockout mice for global metabolomic analysis via Metabolon™ platform, collaborated with the Department of Anesthesiology and Critical Care Medicine at Johns Hopkins School of Medicine to perform targeted metabolomics from brain and blood samples, and worked alongside the Applied Imaging and Mass Spectrometry Core/Service Center at Johns Hopkins School of Medicine to acquire MALDI-IMS data from genetically manipulated mouse coronal brain slices.
- Modified protocol for the laboratory to use primary astrocytes to record real-time oxygen consumption in mitochondrial stress testing using Agilent Seahorse™ Platform.
- Performed and trained students in the laboratory in metabolic flux, substrate uptake, and membrane incorporation assays using radiolabeled metabolites in cultured primary cells.

**REU Scholar and Undergraduate Researcher - University of Kentucky – Department of Molecular and Cellular Biochemistry (May 2012 – August 2012; May 2013 – August 2013; May 2014)**

**Mentor: Matthew S. Gentry, Ph.D.**

- Led project involving cloning, protein expression and purification, and x-ray diffraction crystallization screens of glucan phosphatases from *Arabidopsis thaliana* and *Mus musculus*.
- Assisted senior graduate student in protein expression and purification of chimera glucan phosphatases from plants and vertebrates resulting in a co-authorship in *PNAS*.
- Initially a researcher in competitive Research Experiences for Undergraduates (REU) program. The second summer, I secured funding with my mentor through applying for R01 diversity supplement.
- During the second summer, trained a REU student in cloning and protein purification techniques.
- Co-presented a poster in a national conference for undergraduate researchers.

**Undergraduate Researcher – Mercer University - Department of Chemistry (January 2012 – May 2014)**

**Mentor: Bridget G. Trogden, Ph.D.**

- Led project involving organic synthesis of polymeric chondroitin sulfate A mimics as a competitive ligand to the malarial protein *Plasmodium falciparum* erythrocyte malarial protein 1 PfEMP1.
- Characterized synthesis products using IR spectroscopy, <sup>1</sup>H NMR, and <sup>13</sup>C NMR.
- Presented research in a poster at a regional chemistry research conference.

## PUBLICATIONS

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- **White, C.J.\***, Gausepohl, A.M\*., Wilkins, H.N., Eberhard, C.D., Seneviratne, H.K., Bumpus, N.N., Williams, D.W. (2023) *Spatial Heterogeneity of Brain Lipids in SIV-infected Macaques Treated with Antiretroviral Therapy* (under review in ACS Omega)
- Rosado-Franco J.J., Ellison A., **White C.J.**, Price A.S., Moore C.F., Williams R.E., Fridman L.B., Weerts E.M., Williams D.W. (2023) *Roadmap for Canonical and Extended Endocannabinoid System Receptors in Peripheral Organs of Preclinical Animal Models*. bioRxiv (pre-print)  
<https://www.biorxiv.org/content/10.1101/2023.06.10.544455v1>
- Türker, F., Bharadwaj, R.A., Kleinman, J.E., Weinberger, D.R., Hyde, T.M., **White, C.J.**, Williams, D.W., Margolis, S.S. (2023) *Orthogonal approaches required to measure proteasome composition and activity in mammalian brain tissue*. Journal of Biological Chemistry (in press, journal pre-proof)  
<https://www.sciencedirect.com/science/article/pii/S0021925823018392?via%3Dihub>
- **White, C. J.** & Goodkin, K. (2023). Bioenergetics and neuroimaging research: a neuropathophysiological linkage in the setting of cocaine use amongst persons with HIV. *Aids* **37**, 1001–1003.  
[https://journals.lww.com/aidsonline/Fulltext/2023/05010/Bioenergetics\\_and\\_neuroimaging\\_research\\_a.20.aspx](https://journals.lww.com/aidsonline/Fulltext/2023/05010/Bioenergetics_and_neuroimaging_research_a.20.aspx)
- **White, C.J.\***, Gausepohl, A.M\*., Seneviratne, H.K., Bumpus, N.N., Williams, D.W. (2022). *Antiretroviral therapy does not restore brain lipids during SIV infection: regional analysis of metabolic homeostasis and depletion*. bioRxiv (pre-print)  
<https://www.biorxiv.org/content/10.1101/2022.09.26.508302v1.full>
- **White, C.J.**, Ellis, J., Wolfgang, M.J. (2021) *The role of ethanolamine phosphate phospholyase in regulation of astrocyte lipid homeostasis*. Journal of Biological Chemistry  
<https://www.sciencedirect.com/science/article/pii/S0021925821006281?via%3Dihub>
- Rubin, L. H., Gustafson, D. R., Warrior, L., Sheira, L., Fitzgerald, K. C., Dastgheyb, R., Weber, K. M., Tien, P. C., French, A., Spence, A. B., Sharma, A., Williams, D. W., **White, C. J.**, Seaberg, E. C., Frongillo, E. A. & Weiser, S. D. (2021). Dietary intake is associated with neuropsychological impairment in women with HIV. *The American Journal of Clinical Nutrition*, nqab038.  
<https://doi.org/10.1093/ajcn/nqab038>
- **White, C.J.**, Lee, J., Choi, J., Chu, T., Scafidi, S., Wolfgang, M.J. (2020) *Determining the bioenergetic capacity for fatty acid oxidation in the mammalian nervous system*. *Molecular and Cellular Biology* (selected as spotlight article and highlighted as a cover for manuscript)  
<https://mcb.asm.org/content/early/2020/02/25/MCB.00037-20/article-info> PMID7189099
- Meekins, D., Raththagala, M., Husodo, S., **White, C.**, Guo, H.-F., Kötting, O., Kooi, C., and Gentry, M. (2014). *Phosphoglucan-bound structure of starch phosphatase Starch Excess4 reveals the mechanism for C6 specificity*. *Proc Natl Acad Sci* **111**, 7272–7277.  
<https://www.pnas.org/content/111/20/7272.long> PMID4034183

\* co-first authors

## FUNDING

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### Current Support

- National Institutes of Health Neuroscience Blueprint/National Institute for Neurological Disorder and Stroke – **Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-**

**SPAN) K00 Award** *Evaluating Changes to the Metabolic Profile of the Central Nervous System due to Active NeuroHIV Infection* (K00NS118713) (04/01/2021 – 06/30/2025)

- National Institutes of Health Neuroscience Blueprint/National Institute for Neurological Disorder and Stroke – **Loan Repayment Program** *Examining the Impact of HIV on Brain Metabolism in African Americans* (L60NS129030) (07/01/2022 – 06/30/2024)

### Completed Support

- Johns Hopkins NIMH Center for Novel Therapeutics for HIV-associated Cognitive Disorders **Developmental Core Internal Pilot Award** *Determining the Consequences of HIV-infection and Antiretroviral Therapies on Lipid Metabolism in the Central Nervous System* (04/15/2021 – 04/14/2022)
- National Institutes of Health Neuroscience Blueprint – **Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) F99 Fellowship** *Impact of Brain Lipid Dysregulation on Bioenergetics and Neurologic Dysfunction* (F99NS118713) (09/01/2020 – 03/26/2021)
- National Institute for Neurological Disorders and Stroke – **National Research Service Award F31 Diversity Predoctoral Fellowship** *Ethanolamine Phosphate Phosphorylase in Astrocyte Lipid Metabolism* (F31NS102151) (12/01/2017 – 08/31/2020)
- Society for Neuroscience – NINDS funded-**Neuroscience Scholars Program** (08/01/2017 - 07/31/2019)
- National Institute for Neurological Disorders and Stroke **R01 Diversity Supplement** (Gentry, PI) (R01NS070899-04S1) (5/2013 – 5/2014)

### SELECTED ORAL PRESENTATIONS

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- JHU Mass Spectrometry Day 2023, Baltimore, MD. May 19, 2023. “Assessing the Impact of SIV Infection and Antiretroviral Treatment on the Spatial Distribution of Brain Lipids.” **Invited Speaker**
  - Black-in-Neuro Seminar Series, virtual. May 5, 2023. “Assessing the Impact of SIV Infection and Antiretroviral Treatment on the Spatial Distribution of Brain Lipids.” **Invited Speaker**
  - JHU CAHN NIMH Symposium 2023: Development of NeuroHIV Therapeutics, Baltimore, MD. April 6, 2023. “Evaluating the Impact of Simian Immunodeficiency Virus and Antiretrovirals on the Spatial Distribution of Lipids in the Rhesus Macaque Brain.” **Clinical Core Pilot Awardee Presentation**
  - International Conference for Brain Energy Metabolism 2022, Santa Fe, NM. October 25, 2022. “Lipid Distribution is Highly Variable in the Virally Suppressed SIV-infected Macaque Brain.” **Selected Power Pitch Presentation**
  - Rockefeller University- Rockefeller University Exceptional Scholars Workshop- New York City, NY June 21, 2022. “Evaluating Lipid Dysregulation, Infection, and Social Determinants of Health on Brain Metabolism” **Selected Scholar**
  - University of Michigan Molecular, Cellular, and Developmental Biology Department Seminar Series- In Person June 3, 2022. “Evaluating Lipid Dysregulation, Infection, and Social Determinants of Health on Brain Metabolism” **Invited Seminar**
  - Johns Hopkins School of Medicine- Department of Molecular and Comparative Pathobiology- Retrovirus Laboratory Seminar Series. Virtual October 26, 2021. “Evaluating Changes to the Metabolic Profile of the CNS Due to HIV Infection and ART”
  - Joint NIMH Center Seminar Series. June 16, 2021. “Evaluating Changes to the Metabolic Profile of the CNS Due to HIV Infection.”
  - Johns Hopkins University School of Medicine BCMB Graduate Program Thesis Seminar. March 18, 2021. “Understanding Lipid Catabolism and Homeostasis in the Mammalian Brain.” **Thesis Seminar Presentation**
  - Black in Neuro Mini Virtual Conference 2020, Virtual. November 2, 2020. Fatty acid oxidation occurs under normal conditions in the mammalian nervous system. **Selected for Blitz Talk**

- (Virtual) Invited Seminar to the laboratory of Julia Edgar, Ph.D. Associate Professor in the Institute of Infection, Immunity, and Inflammation at the University of Glasgow. August 18, 2020. “Determining the bioenergetic capacity for fatty acid oxidation in the mammalian nervous system.”
- Johns Hopkins School of Medicine – Department of Neurology – NeuroAIDS Seminar Series. February 28, 2020. “Determining the bioenergetic capacity for fatty acid oxidation in the mammalian nervous system.”
- Cerebral Vascular Biology 2019, Miami, FL. June 28, 2019. “Fatty acid oxidation occurs under normal conditions in the mammalian nervous system.” **Travel Award Winner and Selected Oral Presenter**
- Johns Hopkins School of Medicine – BCMB Graduate Program Colloquium. May 8, 2019. “Fatty acid oxidation occurs under normal conditions in the mammalian nervous system.”
- Johns Hopkins School of Medicine – Department of Biological Chemistry – Thursday Evening Research Discussion. January 17, 2019. “Fatty acid oxidation occurs under normal conditions in the mammalian nervous system.”
- 3<sup>rd</sup> Annual Excellence in Diversity Symposium. Baltimore, MD. December 4, 2018. “Fatty acid oxidation occurs under normal conditions in the mammalian nervous system”
- Johns Hopkins School of Medicine – Lipid Club Meetings. November 12, 2018. “Fatty acid oxidation is a critical metabolic process in the mammalian nervous system.”
- Johns Hopkins School of Medicine – BCMB Graduate Program Colloquium. April 10, 2018. “Brain-specific loss of fatty acid oxidation.”
- Johns Hopkins School of Medicine – BCMB Graduate Program Colloquium. January 22, 2018. “Brain-specific loss of fatty acid oxidation.”
- 2<sup>nd</sup> Annual Excellence in Diversity Symposium. Baltimore, MD. November 6, 2017. “Ethanolamine phosphate phospholyase in astrocyte lipid metabolism.”
- Johns Hopkins School of Medicine – Department of Biological Chemistry – Thursday Evening Research Discussion. February 23, 2017. “Ethanolamine phosphate phospholyase in astrocyte lipid metabolism.”
- Johns Hopkins School of Medicine – Lipid Club Meetings. January 23, 2017. “Ethanolamine phosphate phospholyase in astrocyte lipid metabolism.”
- Johns Hopkins School of Medicine – Lipid Club Meetings. June 8, 2016. “Diet-based regulation of phospholipid metabolism.”

## SELECTED POSTER ABSTRACTS

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- Fernandez, R.F., **White, C.J.**, Ali, R., Scafidi, J., Scafidi, S. *Alterations in glucose oxidative metabolism after traumatic brain injury in the developing brain*. American Society of Neurochemistry 2023. Lexington, KY. March 18-22, 2023
  - **White, C.J.\***, Gausepohl, A.M\*., Seneviratne, H.K., Bumpus, N.N., Williams, D.W. *Lipid Distribution is Highly Variable in the Virally Suppressed SIV-infected Macaque Brain*. Neuroscience 2022. San Diego, CA. November 12, 2022
  - Ellison, A., Rosado-Franco, J.J., **White, C.J.**, Fridman, L., Williams, D.W. *Endocannabinoid system receptors are differentially expressed across brain regions and unaltered by simian immunodeficiency virus infection or antiretroviral therapy*. Neuroscience 2022. San Diego, CA. November 12, 2022
  - **White, C.J.\***, Gausepohl, A.M\*., Seneviratne, H.K., Bumpus, N.N., Williams, D.W. *Lipid Distribution is Highly Variable in the Virally Suppressed SIV-infected Macaque Brain*. International Conference for Brain Energy Metabolism 2022. Santa Fe, NM. October 25, 2022
  - **White, C.J.**, Lee, J., Choi, J., Chu, T., Scafidi, S., Wolfgang, M.J. *Determining the bioenergetic capacity for fatty acid oxidation in the mammalian nervous system*. New England Science Symposium 2021. April 23, 2021 **Ruth and William Silen, M.D. Awards First Place Poster Prize Winner** Miami, FL. June 25, 2019 **Travel Award Recipient**
  - **White, C.J.**, Lee, J., Choi, J., Selen-Alpergin, E., Chu, T., Scafidi, S., Wolfgang, M.J. *Fatty acid oxidation occurs under normal conditions in the mammalian nervous system*. Cerebral Vascular Biology 2019. Miami, FL. June 25, 2019 **Travel Award Recipient**

- **White, C.J.**, Lee, J., Choi, J., Selen-Alpergin, E., Chu, T., Scafidi, S., Wolfgang, M.J. *Fatty acid oxidation is a critical metabolic process in the mammalian nervous system*. 3<sup>rd</sup> Annual Excellence in Diversity Symposium. Baltimore, MD. December 4, 2018
- **White, C.J.**, Lee, J., Choi, J., Selen-Alpergin, E., Chu, T., Scafidi, S., Wolfgang, M.J. *Fatty acid oxidation is a critical metabolic process in the mammalian nervous system*. Neuroscience 2018. San Diego, CA. November 5, 2018 **Travel Award Recipient**
- **White, C.J.**, Lee, J., Choi, J., Selen-Alpergin, E., Chu, T., Scafidi, S., Wolfgang, M.J. *Fatty acid oxidation is a critical metabolic process in the mammalian nervous system*. Johns Hopkins School of Medicine Department of Biochemistry Retreat. Baltimore, MD. September 14, 2018
- **White, C.J.**, Ellis, J., Bowman, C.E., Wolfgang, M.J. *Ethanolamine Phosphate Phospholyase in Astrocyte Lipid Metabolism*. 2<sup>nd</sup> Annual Excellence in Diversity Symposium. Baltimore, MD. November 6, 2017.
- **White, C.J.**, Ellis, J., Bowman, C.E., Wolfgang, M.J. *Ethanolamine Phosphate Phospholyase in Astrocyte Lipid Metabolism*. Gordon Research Conference for Molecular and Cellular Lipids 2017. Waterville Valley, NH. July 30<sup>th</sup> - August 4<sup>th</sup>, 2017 **Travel Award Recipient**
- **White, C.J.**, Ellis, J., Bowman, C.E., Wolfgang, M.J. *Ethanolamine Phosphate Phospholyase in Astrocyte Lipid Metabolism*. 4<sup>th</sup> Annual Navigating Lipid Research in Baltimore. Baltimore, MD. May 5, 2017
- **White, C.J.**, Ellis, J., Bowman, C.E., Wolfgang, M.J. *Neuronal Specific Regulation of Phospholipid Metabolism*. 1<sup>st</sup> Annual Excellence in Diversity Symposium. Baltimore, MD. September 27, 2016
- **White, C.J.**, Ellis, J., Bowman, C.E., Wolfgang, M.J. *Neuronal Specific Regulation of Phospholipid Metabolism*. 3<sup>rd</sup> Annual Navigating Lipid Research in Baltimore. Baltimore, MD. April 22, 2016
- Nazeer Shaikh\*, **Cory White\***, Satrio Husodo, Katy Brewer, David Patterson, Matthew Gentry, Ph.D. *In Vitro Starch Catabolism, a Novel, Environmentally Safe Means of Starch Processing*. National Conference for Undergraduate Research April 2014, Lexington KY. April 4, 2014 (\*co-presenters)
- **White, C.J.**, Geist, G., Ferrill, K., Hogges, J., Trogden, B.G. *Synthesis of glycosaminoglycans and mimics to explore binding affinity to malarial proteins*. SERMACS 2013, Atlanta, GA. November 14-16, 2013.
- **White, C.**, Shaikh, N., Patterson, D., Brewer, K., Husodo, S., Meekins, D., Gentry, M. *Identifying, cloning, and characterizing glucan phosphatases from economically viable plants*. Bear Day Research at Mercer, Mercer University, Macon, GA. April 11, 2013.
- Trogden, B.G.; **White, C.J.**; Geist; G.; Ferrill, K.; Hogges, J. *Synthesis of Fluorophore-Conjugated Carbohydrates and Polymer-Linked Carbohydrates*. National Organic Symposium, Seattle, WA. June 23-27, 2013.

## PEER REVIEW

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- Invited to write editorial comment for AIDS- "A Prospective 18F-FDG PET/CT Study of the Neurometabolic Effects in Cocaine Use and HIV Infection" Reference #: AIDS-D-22-00295R1 November 2022
- Reviewer for AIDS- "Brain Volumetrics Differ by Fiebig Stage in Acute HIV Infection" Reference #: AIDS-D-22-00547 October 2022
- Re-Reviewer for AIDS- "A Prospective 18F-FDG PET/CT Study of the Neurometabolic Effects in Cocaine Use and HIV Infection" Reference #: AIDS-D-22-00295R1 October 2022
- Reviewer for AIDS- "A Prospective 18F-FDG PET/CT Study of the Neurometabolic Effects in Cocaine Use and HIV Infection" Reference #: AIDS-D-22-00295R1 June 2022

## TEACHING & OUTREACH EXPERIENCE

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- **Peer Mentor – Post-Baccalaureate Research Education Program - Johns Hopkins School of Medicine (April 2015 – present)** As a peer mentor, I am involved in hosting academic and professional events, imparting academic and professional advice using my own experience in science such as

editing fellowship/ graduate admission applications, and serve to provide social support for the scholars. Prior to their arrival, I also have reviewed applications for scholar candidates and hosted welcome visits for incoming scholars. Since 2022, I have also served on a new initiative to build scholars' life skills to be successful well-rounded scientists in peer mentor-led workshops on topics such as imposter syndrome, time management, financial literacy, stress management, conflict management, and etc. Further, I have co-written an internal Diversity Innovation Grant award that was successfully awarded for PREP that provides funding to compensate mentors and scholars for a new seminar series "Seeing Myself in Science" of small group discussions for underrepresented trainees to reflect their own humanity and common paths with underrepresented faculty as a means of inspiration (<https://diversity.jhu.edu/diversity-leadership-council/diversity-innovation-grants/>).

- **Organizing Board Diversity Postdoctoral Alliance Committee HBCU Mentoring Program (January 2022-present).** I serve on the organizing committee of the Diversity Postdoctoral Alliance Committee (DPAC) HBCU Mentoring Program organizing committee. This program partners with Morgan State University and Coppin State University in Baltimore, Maryland to provide professional mentorship to undergraduates to learn more about the path of a research scientist or physician, navigating applying to graduate and/or medical school, and to provide representation for seeing scientists and medical professionals from similar backgrounds.
- **Teaching Assistant for the Johns Hopkins School of Medicine Medical School Intensive Summer Course for High School Students (AS.020.132.61.SU20 and AS.020.132.66.SU20) (July 20 – August 1, 2020; July 29, 2021- August 6, 2021; July 11, 2022 – July 25, 2022).** This course is meant to immerse talented high school students to various medical topics and expose them to career paths across STEM fields. Held virtually, I was responsible for grading course assignments and answering scientific and technical questions regarding the course materials.
- **Selected Panelist for 12 Annual NIH BP-ENDURE Meeting (November 12, 2022) San Diego, CA.** On this panel, I was able to share my research experiences and scientific journey to undergraduate that are underrepresented in science at the Neuroscience 2022 international meeting.
- **Moderator for Johns Hopkins Diversity Postdoctoral Alliance Committee: Postbaccalaureate Opportunities Virtual Workshop (November 2, 2022)- Virtual.** I, along with organizer Janielle Maynard, Ph.D. hosted a series of previous postbaccalaureate program scholars and postbac program organizers from across institutions to share the benefits of a STEM postbaccalaureate experience from across institutions.
- **Brewing Up Science – Oral Presentation “How Does HIV Change the Way the Brain Uses Energy” (December 15, 2021) Baltimore, Maryland.** During this talk, I was able to share my postdoctoral research refraining from jargon to the public at a local bar in Baltimore, Maryland.
- **Panelist for Johns Hopkins University Diversity Postdoctoral Alliance Committee: How to Mentor as a Trainee? (October 25, 2021)- Virtual.** I, along with my postdoctoral mentor Dionna W. Williams and a number of other underrepresented postdoctoral fellows and faculty gave our perspectives of what we prioritize as mentors. I specifically shared my perspective of how my mentoring style is actively growing as an early-stage postdoctoral fellow.
- **Panelist for 2021 Black in Neuro Week Mentor Spotlight: Building an Equitable and Efficient Lab (July 29, 2021) – Virtual.** I, along with my postdoctoral mentor Dionna W. Williams, Ph.D. and undergraduate researcher Andrew Gausepohl, were invited by the international organization Black in Neuro to serve on a panel to talk about what we value in mentorships. I shared my perspectives as both a mentee as a postdoctoral fellow and a mentor to an undergraduate researcher.  
<https://www.youtube.com/watch?v=wOWyGuFkK3M&t=21s>
- **Co-Host for 2020 Black in Neuro Mini Conference Welcome Social (October 31, 2020) – Virtual.** The Black in Neuro Mini Conference is a virtual conference featuring professional development panels, workshops, mixers, data blitzes, and keynote presentation. For the Welcome Social, I along with another graduate student set up a Zoom social to allow Black neuroscientists to network based on location, scientific interests, stage of training.
- **Guest on the NINDS’ Building Up the Nerve Podcast (October 28, 2020) – Virtual.** I was selected to provide my insights as a graduate student on the process of fellowship resubmissions based on my experience and success with NIH fellowships (awarded F31 and F99). *Airs April 2021*

- **Panelist for the Johns Hopkins Biomedical Scholar's Association Virtual Fellowship Panel (October 14, 2020).** – Imparted my insights as a graduate student on the process of fellowship resubmissions based on experiences and successes with NIH fellowships with other underrepresented in science graduate students from Johns Hopkins.
- **Presenter and Panelist – Science Gong Show: Neuroscience: Everything but the Neuron – Project Bridge (March 6, 2020) – Johns Hopkins School of Medicine.** This event brought together scientists and locals to learn about the neuroscience research from panelists in the form of short talks with limited jargon. Here I also sat on a panel and took questions from the public relating to my research and ethics in neuroscience.
- **Organizer – 2019 - 2021 Second Look Weekend for Accepted Underrepresented Applicants (January – March 2019 to 2021) – Johns Hopkins School of Medicine.** Contributed to timeline, activities, and execution of second look visit for accepted students from underrepresented backgrounds across graduate programs in the school of medicine.
- **Meeting Organizer – 4<sup>th</sup> Annual Navigating Lipid Research in Baltimore (May 5, 2017) – Johns Hopkins School of Medicine.** The goal of this meeting was to bring together basic scientists, industry researchers, and clinicians with a shared interest in the role of lipids in cellular processes, metabolism, and pathophysiological conditions. I invited speakers and planned professional development topics for discussions.
- **Graduate student exhibitor – Annual Biomedical Research Conference for Minority Students (November 9-12, 2016; Tampa, FL).** In the fall of 2016, I was the BCMB representative for recruitment at the Annual Biomedical Research Conference for Minority Students. Three of the students I spoke with at this conference regarding the BCMB program matriculated into the BCMB graduate program.
- **Organizing Volunteer - 1<sup>st</sup> Annual Excellence in Diversity Symposium (September 27, 2016) – Johns Hopkins School of Medicine.** The purpose of the Excellence in Diversity Symposium hosted by the Diversity Postdoctoral Alliance Committee is to highlight the accomplishments of underrepresented minority trainees at Johns Hopkins and around the Baltimore/DMV metro area. We also aim for local high school students and undergraduates to interact and network with senior scientists from underrepresented backgrounds. I assisted in registration of attendees and setting up the meeting poster session.
- **Vice President of Programming (June 2015- June 2016); Public Relations Chair (June 2016- June 2017); General Member (August 2014- March 2021) Biomedical Scholars Association – Johns Hopkins School of Medicine.** Biomedical Scholars Association (BSA) serves to promote professional and academic success of graduate students from underrepresented backgrounds in the school of medicine, school of public health, and school of nursing at Johns Hopkins. As a member of the executive board from 2017-2018, we hosted grant workshops, invited panelists from diverse career paths outside of academia, provide students with mock oral exams, and invited faculty speakers from outside institutions from underrepresented backgrounds. Based upon national events with recent years, I was also involved in hosting sessions to openly discuss the impact of police violence on trainees from underrepresented backgrounds with faculty and deans in the summer of 2016.
- **Teacher Assistant (TA) for Organic Chemistry I & II Laboratory – Mercer University, Macon, GA (August 2013 – May 2014)** As an Organic Chemistry laboratory TA, I helped set up instruments, instruct, deconstruct and clean, and grade laboratory reports.
- **Academic Resource Center Tutor – Mercer University, Macon, GA (June 2011 – May 2014)** As an undergraduate peer tutor for the Academic Resource Center, I instructed tutorials for undergraduate Calculus I & II (2011-2012), Organic Chemistry I & II (2012-2014), Genetics (2012-2014), and Biochemistry I & II (2012-2014)

## **AFFILIATIONS, PROFESSIONAL MEMBERSHIPS and HONOR SOCIETIES**

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- International Society for Neurochemistry (2022-present)
  - American Society of Neurochemistry (2022-present)
  - International Society for NeuroVirology (2021-present)



- Society for Neuroscience (2017 - present)
- American Society for Biochemistry and Molecular Biology (2017 - present)
- Johns Hopkins School of Medicine Post-Baccalaureate Education Research Program- Peer mentor (2015-present)
- International Brain Barriers Society (2019 - 2020)
- Johns Hopkins School of Medicine Biomedical Scholar's Association (VP Programming 2015-2016; PR Chair 2016-2017; General Member 2014-March 2021)
- American Association for the Advancement of Science (2015 - 2021)
- Gamma Sigma Epsilon Chemistry Honor Society (2013-2014)
- Sigma Xi Research Honor Society (2013-2014)
- Golden Key Honor Society (2013-2014)
- Phi Kappa Phi Honor Society (2012-2014)
- Phi Eta Sigma Honor Society (2011-2014)

## HONORS

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- Invited Alumni Speaker at Johns Hopkins University School of Medicine 2023 Commencement
- NINDS-funded BRAINS Fellows Program at the University of Washington: Selected as BRAINS Fellow for the 2022 cohort
- Rockefeller University Exceptional Scholars Workshop (2022): Selected as an inaugural scholar for the 2022 cohort
- NextProf Science Future Faculty Workshop at the University of Michigan, Ann Arbor (2022): Selected for Workshop
- Invited as a recent alumni speaker for the 2022 Johns Hopkins University School of Medicine Commencement- Canceled speech commitment due to COVID19.
- Ruth and William Silen, M.D. Awards First Place Poster Prize Winner of the 2021 New England Science Symposium (2021)
- NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience Fellowship (2020)
- Johns Hopkins NIMH Center for Novel Therapeutics for HIV-associated Cognitive Disorders Developmental Core Award (2020)
- Molecular and Cellular Biology Manuscript "Determining the Bioenergetic Capacity for Fatty Acid Oxidation in the Mammalian Nervous System" selected for Spotlight Article and Cover (2020)
- Cerebrovascular Biology Conference 2019: Selected Oral Presenter (2019)
- Cerebrovascular Biology Conference 2019: Travel Award Recipient (2019)
- JHSOM 3<sup>rd</sup> Excellence in Diversity Symposium: Travel Award Recipient and Selected Oral Presenter (2018)
- JHSOM 2<sup>nd</sup> Excellence in Diversity Symposium: Travel Award Recipient and Selected Oral Presenter (2017)
- NINDS Ruth Kirschstein NRSA F31 Diversity Predoctoral Fellowship (F31NS102151) (2017)
- Society for Neuroscience: Neuroscience Scholars Program Fellow (2017)
- Gordon Research Conference Carl Storm Underrepresented Minority Fellowship (2017)
- NSF Graduate Research Fellowship Program Honorable Mention (2016)
- B.S. awarded Summa Cum Laude with Departmental Honors from Mercer University (2014)
- Mercer University Outstanding Senior in Biochemistry and Molecular Biology (2014)
- NIH NINDS Diversity Supplement Recipient with Matthew Gentry, Ph.D. (NS70899) (2013)
- Goldwater Fellowship Institutional Nominee (2013)
- University of Kentucky Biochemistry Research Experience for Undergraduates (REU) (2012)
- Mercer University Organic Chemistry Student of the Year (2012)
- Mercer University Dean's List (Fall 2012; Spring 2014)
- Mercer University President's List (Fall 2010, Spring 2011, Fall 2011, Spring 2012, Spring 2013, Fall 2013)