

Leandra K. Figuroa-Hall, Ph.D.

[Figuroa-Hall Email](#); [Figuroa-Hall LinkedIn](#); cell: (443) 468-7095

Webpage: <https://www.laureateinstitute.org/leandra-figuroa-hall.html>

Current Position

Associate Investigator, Laureate Institute for Brain Research, Tulsa, OK; 2022-present

Interests: 1) Defining the role of toll-like receptor 4 (TLR4) in inflammation-associated depression and other neuroinflammatory disorders; 2) Delineating stress-induced mechanisms in depression (e.g., release of damage-associated molecular patterns; inflammasome); 3) Characterization and validation of human microglial-enriched extracellular vesicles; 4) Biomarker discovery for inflammation-associated depression; 5) TLR4-mediated mechanisms in opioid use disorder.

Research Assistant Professor, Oxley College of Health and Natural Sciences, The University of Tulsa; 2023-present

Training

Postdoctoral Research Associate, Laureate Institute for Brain Research, Tulsa, OK; 2019-2022

Mentors: Jonathan Savitz Ph.D. and Martin Paulus, M.D.

Project: *In vivo* inflammatory challenge to identify astrocyte-enriched extracellular vesicle TLR4-modulating miRNA signatures in depression

Postdoctoral Fellow, Yale University, School of Medicine, Department of Pediatrics/Gastroenterology, New Haven, CT; 2017-2019

T32 NIH Training Grant (Internal Medicine DK00701741)

Mentors: Nadia A. Ameen, MBBS and Fred Gorelick, M.D.

Project 1: Generation of Myo5B-deficient human models for the study of Microvillus inclusion disease (MVID)

Project 2: Glucocorticoid regulation of intestinal ion transport/activity in native intestine

Education

Ph.D. Biomedical Sciences, Oklahoma State University-Center for Health Sciences, (CHS), Tulsa, OK; 2017

Department of Pharmacology/Physiology; Mentor: Dr. Randall L. Davis

M.Sc. Biomedical Research, University of Maryland-School of Medicine, Baltimore, MD; 2011

Department of Microbiology and Immunology; Mentor: the late Dr. Andrei E. Medvedev

B.Sc. Biology, University of the Virgin Islands, St. Thomas, USVI; 2008

Grant/Funding

R00MH126950; NIH-National Institute of General Medical Sciences (NIGMS)-National Institute of Mental Health (NIMH) [K99/R00-Maximizing Opportunities for Scientific and Academic Independent Careers (MOSAIC)]; 2024-2027

Identify differences in inflammation-related microRNAs between depressed and healthy individuals through the quantification of microRNA expression in both peripheral blood mononuclear cells and AEEV.

K99MH126950; NIH-NIGMS-NIMH; (K99/R00- MOSAIC); 2022-2024

Understand how depressed individuals with high inflammation differ in their peripheral and central immune responses to an inflammatory challenge with the use of serum and astrocyte-enriched extracellular vesicles (AEEV).

1L30MH131119; NIMH; NIH Loan Repayment Program; 2022-2024. Applied for renewal.

Manuscripts in Preparation

Figueroa-Hall LK*, Burrows K*, Alarbi AM*, Hannafon BN*, Tan C, Hladik C, Ramesh R, Stewart JL, Risbrough VB, Paulus MP & Teague TK. Isolation, enrichment, and characterization of astrocyte-enriched extracellular vesicles with distinct methods: A comparison for human serum and plasma. ***Shared co-first author** (In preparation- to be submitted to the Journal of Extracellular Vesicles)

Manuscripts under Review

Munshi S, Savitz J, Alarbi A, Zheng H, Kuplicki R, Burrows K, **Figueroa-Hall L**, Victor T, Aupperle R, Khalsa S, Paulus M, Teague K. Increased expression of ER stress, inflammasome activation, and mitochondrial biogenesis-related genes in peripheral blood mononuclear cells in major depressive disorder. *Res Sq [Preprint]*. 2024 Jan 12;rs.3.rs-3564760. doi: 10.21203/rs.3.rs-3564760/v1. PMID: 38260352; PMCID: PMC10802690. (Revise and resubmit at Molecular Psychiatry).

Savitz J, **Figueroa-Hall LK**, Teague TK, Yeh HW, Zheng H, Kuplicki R, Burrow K, Jarrett CJ, El-Sabbagh N, Thomas M, Ewers I, Cha YH, Guinjoan S, Khalsa SS, Paulus MP, Irwin MR. Endotoxin Challenge in Major Depressive Disorder: Effect of Baseline Inflammation. (Revise and resubmit at American Journal of Psychiatry).

Peer-Reviewed Publications

2024

Burrows K*, **Figueroa-Hall LK***, Stewart JL, Alarbi AM, Kuplicki R, Hannafon BN, Tan C, Risbrough VB, McKinney BA, Ramesh R, Victor TA, Aupperle R, Savitz J, Teague TK, Khalsa SS, Paulus MP. Exploring the role of neuronal-enriched extracellular vesicle miR-93 and interoception in major depressive disorder. *Transl Psychiatry*. 2024 Apr 27;14(1):199. doi: 10.1038/s41398-024-02907-x. PMID: 38678012; PMCID: PMC11055873. *** Shared co-first authorship**

Stewart JL, Burrows K, May AC, McNaughton BA, Smith R, Kuplicki R, Paulus MP, **Figueroa-Hall L**. C-reactive protein concentrations diverge as a function of substance use disorder: A pre-registered replication in a clinical sample. *Drug Alcohol Depend*. 2024 May 8;260:111323. doi: 10.1016/j.drugalcdep.2024.111323. Epub ahead of print. PMID: 38733735.

Welsh JA, Goberdhan DCI, O'Driscoll L, Buzas EI, Blenkiron C, Bussolati B, Cai H, Di Vizio D, Driedonks TAP, Erdbrügger U, et. al, **MISEV Consortium**; Théry C, Witwer KW. Minimal information for studies of extracellular vesicles (MISEV2023): From basic to advanced approaches. *J Extracell Vesicles*. 2024 Feb;13(2):e12404. doi: 10.1002/jev2.12404. PMID: 38326288; PMCID: PMC10850029.

Zhang Y, Munshi S, Burrows K, Kuplicki R, **Figueroa-Hall LK**, Aupperle RL, Khalsa SS, Teague TK, Yasuyuki T, Paulus MP, Savitz J, Zheng H. Leptin's Inverse Association with Brain Morphology and Depressive Symptoms - A Discovery and Confirmatory Study Across Two Independent Samples. *Biol Psychiatry Cogn Neurosci Neuroimaging*. 2024 Apr 15:S2451-9022(24)00105-8. doi: 10.1016/j.bpsc.2024.04.005. Epub ahead of print. PMID: 38631553.

2023

Burrows K*, **Figueroa-Hall LK***, Alarbi AM, Stewart JL, Kuplicki R, Tan C, Hannafon BN, Ramesh R, Savitz J, Khalsa S, Teague TK, Risbrough VB, Paulus MP. Association between inflammation, reward processing, and ibuprofen-induced increases of miR-23b in astrocyte-enriched extracellular vesicles: A randomized, placebo-controlled, double-blind, exploratory trial in healthy individuals. *Brain Behav Immun Health*. 2022 Dec 24;27:100582. doi: 10.1016/j.bbih.2022.100582. PMID: 36605933; PMCID: PMC9807827. *** Shared co-first authorship**

Burrows K, McNaughton BA, **Figueroa-Hall LK**, Spechler PA, Kuplicki R, Victor TA, Aupperle R, Khalsa SS, Savitz JB, Teague TK, Paulus MP, Stewart JL. Elevated serum leptin is associated with attenuated reward anticipation in major depressive disorder independent of peripheral C-reactive

protein levels. *Sci Rep.* 2023 Jul 13;13(1):11313. doi: 10.1038/s41598-023-38410-4. PMID: 37443383; PMCID: PMC10344903.

2022

Burrows K, **Figuroa-Hall LK**, Kuplicki R, Stewart JL, Alarbi AM, Ramesh R, Savitz JB, Teague TK, Risbrough VB, Paulus MP. Neuronally-enriched exosomal microRNA-27b mediates acute effects of ibuprofen on reward-related brain activity in healthy adults: a randomized, placebo-controlled, double-blind trial. *Sci Rep.* 2022 Jan 17;12(1):861. doi: 10.1038/s41598-022-04875-y. PMID: 35039595; PMCID: PMC8764091.

Figuroa-Hall LK, Xu B, Kuplicki R, Ford BN, Burrows K, Teague TK, Sen S, Yeh HW, Irwin MR, Savitz J, Paulus MP. Psychiatric symptoms are not associated with circulating CRP concentrations after controlling for medical, social, and demographic factors. *Transl Psychiatry.* 2022 Jul 12;12(1):279. doi: 10.1038/s41398-022-02049-y. PMID: 35821205; PMCID: PMC9276683.

2020

Figuroa-Hall LK, Paulus M, Savitz J. Toll-Like Receptor Signaling in Depression. *Psychoneuroendocrinology.* 2020;121:104843.

MyBibliography::<https://www.ncbi.nlm.nih.gov/myncbi/leandra.figuroa-hall.1/bibliography/public/>

Book Chapter

Ameen N, Kopic S, Ahsan Md K, and **Figuroa-Hall LK** (2020). Secretory Diarrhea; Volume 2: Ion Transport Across Epithelial Tissues and Disease; Ion Channels and Transporters of Epithelia in Health and Disease Book 2nd Edition; (Hamilton KL and Devor DC), APS-Springer-Nature.

Honors & Awards

The American College of Neurosychopharmacology (ACNP)

2024 URM Near-Peer Mentorship Program

End2Cancer Conference

2021-1ST Place for "Pitch Your Research"- oral presentation- \$1000 Travel Award

The American Physiological Society (APS) Minority Travel Fellowship Award

2016, 2018-Travel Award for Experimental Biology

Oklahoma State University

2017-Women's Faculty Council Student Research Award (Recognition for quality of research)

2015-Regents' Distinguished Faculty Teaching Award Review and Selection Committee

2015-Research Day, 2nd place poster for Department of Pharmacology/Physiology

2014-Research Day, Best poster for Department of Pharmacology/Physiology

Society for Neuroscience (SFN)

2015-2017, Neuroscience Scholars Program- NSP Associate

Federation of American Societies for Experimental Biology (FASEB)

2016-Travel Award for the Postdoctoral Preparation Institute 2016

2016-Travel Award for APS Writing and Reviewing for Scientific Journals Course

2014-Minority Travel Award

American Association of Immunologists (AAI)

2011-AAI Trainee Award

Academic Presentations

Laureate Institute for Brain Research

2022- Brownbag Series; TLR4 signaling in depression- Grant Overview

2021- T1000; Predictors of Suicidal Thoughts and Behaviors in Community-Dwelling Psychiatric Patients: A One-Year Longitudinal Study

2021- Brownbag Series; Toll-like receptor (TLR) signaling in depression

National/International Conferences

2024

Burrows, K., **Figueroa-Hall, L. K.**, Alarbi, A. M., Tan, C., Hannafon, B.N., Ramesh R. , Risbrough, V. B., Teague, T. K., & Paulus, M. P.(2024). Comprehensive evaluation of extracellular vesicle markers with different isolation methods. Poster presentation at the 2024 annual meeting of the International Society for Extracellular Vesicles (ISEV); Melbourne, Australia.

Figueroa-Hall, L. K., Burrows, K., Alarbi, A. M., Tan, C., Hannafon, B.N., Ramesh R. , Risbrough, V. B., Teague, T. K., & Paulus, M. P.(2024). Astrocyte-enriched extracellular vesicle protein concentrations after proteinase K treatment. Poster presentation at ISEV2024; Melbourne, Australia.

Rojas, L., Ren, X., Mann, E., Bethel, D., Wilhelm, R., Baughman, N., Burrows, K., **Figueroa-Hall, L.K.**, John-Henderson N.A., Kuplicki, R., Aupperle, R.L., Guinjoan, S.M., Savitz, J., Paulus, M.P., White, E.J. (2024). Serum inflammatory biomarkers as possible predictors of reward disruptions in an American Indian sample: A study on sex differences. Symposium presentation submitted to the annual meeting of Anxiety and Depression Association of America; Boston MA.

2023

Burrows, K., **Figueroa-Hall, L. K.**, Alarbi, A. M., Stewart, J. L., Kuplicki, R., Tan, C., Hannafon, B.N., Ramesh, R., Savitz, J. B., Fan, C.C., Thompson W., Risbrough, V. B., Teague, T. K., & Paulus, M. P. (2023). Human neuronal-enriched extracellular vesicle microRNA profile in individuals diagnosed with COVID-19. Poster presented at ISEV2023; Seattle, Washington.

Figueroa-Hall, L. K., Kaiping Burrows, Rayus Kuplicki, T. Kent Teague, Michael Irwin, Sahib Khalsa, Salvador Guinjoan, Martin P. Paulus, Jonathan Savitz (2023). Astrocyte-Enriched Extracellular Vesicle Vascular Injury Proteins and HSA-LET-7f-5p Expression after in Vivo Immune Challenge in Major Depressive Disorder. Virtual poster presentation at the annual meeting for the ACNP- Tampa, Florida.

Leandra K. Figueroa-Hall, Ahlam M. Alarbi, Chibing Tan, Kaiping Burrows, Bethany Hannafon, Rajagopal Ramesh, Victoria B. Risbrough, Kent Teague, Martin P. Paulus (2023). Four distinct methods for exosome isolation and enrichment of astrocyte-enriched extracellular vesicles. Poster presentation at the ISEV's 1st symposium on EVs in the Nervous System; Rome, Italy.

Figueroa-Hall, L. K., Burrows, K., Alarbi, A. M., Tan, C., Kuplicki, R., Stewart, J. L., Aupperle R., Hannafon, B.N., Ramesh, R., Savitz, J. B., Risbrough, V. B., Teague, T. K., Khalsa, S.K., Guinjoan S., & Paulus, M. P.(2023). Neuronal-enriched extracellular vesicle miR-182 and miR-486 expression display opposing directionality in non-suicidal and suicidal individuals with major depressive disorder. Poster presented at the 2023 annual meeting of ISEV; Seattle, Washington.

2022

Burrows K., **Figueroa-Hall, L. K.**, Alarm A.M., Tan C., Hannafon B.N., Hladik C., Ramesh R., Stewart J.L., Savitz J.B., Risbrough V.B., Teague T.K., & Paulus M.P. (2022). Comparison of neuronal-enriched extracellular vesicles using different extracellular vesicles isolation methods. Poster presentation to International Society of Extracellular Vesicles (ISEV)xTECH; Honolulu, Hawaii.

Burrows, K., Stewart, J. L., **Figueroa-Hall, L. K.**, Kuplicki, R., Alarbi, A. M., Tan, C., Tulsa 1000 Investigators, Risbrough, V. B., McKinney, B. A., Ramesh, R., Savitz, J. B., Teague, T.K., Khalsa, S. S., & Paulus, M. P. (2022). Association of decreased microRNA-93 expression from neuronal-enriched extracellular vesicles and dysregulated brain interoceptive processing in major depressive disorder. Poster presented at ISEV2022; Lyon France.

Leandra Figueroa-Hall, Kaiping Burrows, Jennifer L. Stewart, Ahlam M. Alarm, Chibing Tan, Rayus Kuplicki, T. Kent Teague, Rajagopal Ramesh, Victoria B. Risbrough, Martin P. Paulus, Jonathan Savitz (2022). Toll-Like Receptor 4 Agonist Elicits an Inflammatory Response After *in vivo* Immune Challenge in Major Depressive Disorder. Data Blitz and poster presentation at the annual meeting for the ACNP; Phoenix, Arizona.

Leandra K. Figueroa-Hall, Kaiping Burrows, Ahlam M. Alarbi, Bethany N. Hannafon, Rajagopal Ramesh, Jennifer L. Stewart, Jonathan B. Savitz, Victoria B. Risbrough, T. Kent Teague, & Martin P. Paulus (2022).

Comparison of next-generation sequencing data analysis on astrocyte-enriched extracellular vesicle microRNA using different platforms. Poster presentation at International Society of Extracellular Vesicles (ISEV)xTECH; Honolulu, Hawaii.

Leandra K. Figueroa-Hall, Kaiping Burrows, Ahlam M. Alarbi, Chibing Tan, T. Kent Teague, Brett McKinney, Rajagopal Ramesh, Yoon-Hee Cha, Salvador Guinjoan, Sahib Khalsa, Victoria B. Risbrough, Martin P. Paulus, and Jonathan Savitz (2022). Characterization of human astrocyte-enriched extracellular vesicle miRNAs after an *in vivo* lipopolysaccharide challenge. Oral presentation at the 2022 annual meeting of ISEV; Lyon, France.

2011-2018

Leandra K. Figueroa-Hall, Md Kaimul Ahsan, Caihong Qiu, Yinghong Ma, and Nadia A. Ameen (2018). Generation of Myo5B-deficient experimental models to study Microvillus inclusion disease (MVID). Poster presentation at the annual meeting for Experimental Biology (EB)-APS and GI & Liver Section Trainee Symposium.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, and R.L. Davis (2016). Characterization of TLR4 neuroinflammatory signaling mechanisms and the effects of fentanyl citrate on CHME-5 human microglial cells. Poster presentation at the annual meeting for EB.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, and R.L. Davis (2015). Characterization of TLR4 neuroinflammatory signaling mechanisms and the effects of fentanyl citrate on CHME-5 human microglial cells. Poster presentation at the annual meeting for Society for Neuroscience (SFN).

L.K. Figueroa-Hall, D. Buck, S. Das, C. Stevens, and R.L. Davis (2013). Investigating the TLR4 signaling mechanisms in CHME-5 human microglial cells and the effects of β -Funaltrexamine treatment. Poster presentation at the annual meeting for the American Association of Immunologists (AAI).

L.K. Figueroa-Hall, D. Buck, S. Das, C. Stevens, and R.L. Davis (2012). β -Funaltrexamine inhibits IL-1R and TLR4-signaling pathways. Diversity Fellows Poster Session. Poster presentation at annual meeting for SFN.

Leandra K. Figueroa and Andrei E. Medvedev (2011). Asp299Gly polymorphism decreases the TLR4-elicited activation of MyD88- and TRIF-dependent signaling pathways. Oral/Poster presentations at the annual meeting for the AAI.

State and Regional Conferences

2023

Valerio Coussa, **Leandra Figueroa-Hall**, Rayus Kuplicki, Teresa A. Victor, K. Kale Thomas, Robin L. Aupperle, Sahib S. Khalsa, Jonathan Savitz, T. Kent Teague, Martin P. Paulus, Jennifer L. Stewart, Kaiping Burrows (2023). Opioid use indicative of increased serum soluble intercellular adhesion molecule 1 concentrations and altered brain reward processing. Poster presented at LIBR Research Day, Laureate Institute for Brain Research; Tulsa OK.

Figueroa-Hall LK and Burrows K. (2023). A window into the depressed brain. Oral presentation at Zarrow Symposium; the Mental Health Association; Tulsa OK.

2022

Coussa V., **Figueroa-Hall, L. K.**, Spechler P.A., Kuplicki R., Victor T.A., Aupperle R.L., Khalsa S.S., Savitz J., T. Teague, T. K., Paulus, M. P., Stewart, J. L., Burrows K. (2022). Serum Soluble Intercellular Adhesion Molecule 1 (sICAM-1) as a Biomarker for Neuroadaptation to Substance Use. Poster presented at LIBR Research Day, Laureate Institute for Brain Research; Tulsa OK.

Ciboney Ware, Leandra K. Figueroa-Hall, Sherille Bosfield, Melanie Curry, Cassandra Sturycz, Robin Aupperle, & Martin P. Paulus. The Impact of reporting the mental health status of marginalized

adolescents: and ABCD Study (2022). Poster presented at LIBR Research Day. Laureate Institute for Brain Research; Tulsa OK.

2021

Leandra K. Figueroa-Hall, Kaiping Burrows, Ahlam M. Alarbi, Jennifer L. Stewart, Rayus Kuplicki, Chibing Tan, Rajagopal Ramesh, Jonathan B. Savitz, Sahib Khasla, T. Kent Teague, Victoria Risbrough, and Martin P. Paulus (2021). Ibuprofen-mediated astrocyte-enriched exosome miR-23b expression attenuates TNF and IL-17A to promote improved brain reward processing. Oral presentation at the annual End2Cancer meeting; Oklahoma City, OK.

2011-2018

Leandra K. Figueroa-Hall, Md Kaimul Ahsan, Caihong Qiu, Yinghong Ma, and Nadia A. Ameen (2018). Generation of Myo5B-deficient experimental models to study Microvillus inclusion disease (MVID). Poster presentation at the 6th Annual Yale Pediatric Research Forum; Yale University, SOM.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, and R.L. Davis (2017). Opioid compounds modulate LPS-induced NF- κ B activation in microglial cells. Poster presentation for OSU-CHS Research Day 2017.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, and R.L. Davis (2015). Investigating TLR4 neuro-inflammatory signaling mechanisms and the effects of opioid compounds in CHME-5 human microglial cells. Poster presentation for OSU-Tulsa Day 2015.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, R.L. Davis (2015). TLR4, Opioids and the Inflammatory Response in the Brain”. Oral Presentation for 3MT Competition.

L.K. Figueroa-Hall, D. Buck, S. Das, C. Stevens, and R.L. Davis (2015). Investigating TLR4-signaling mechanisms in CHME-5 human microglial cells and the effects of β -Funaltrexamine treatment. Poster presentation for OSU-CHS Research Day 2015.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, R.L. Davis (2015). Characterization of TLR4 neuroinflammatory signaling mechanisms and the effects of fentanyl citrate on CHME-5 human microglial cells. Poster presentation for Research Partners Citywide Research Day, University of Oklahoma, Schusterman Center.

L. K. Figueroa-Hall, E.K. Green, D.J. Buck, C.W. Stevens, and R.L. Davis (2012). Pro-Inflammatory Mediator-Activated TLR/IL-1R/NF- κ B Signaling is inhibited by β -Funaltrexamine. Poster presentation for OSU-CHS Research Day 2012.

L.K. Figueroa-Hall, S. Das, C.W. Stevens, R.L. Davis (2011). The D299G Polymorphism inhibits Signal Transduction by Interfering with the MyD88- and TRIF-dependent Signaling Pathways. Poster presentation for the Graduate Research Conference- University of Maryland, SOM.

TEACHING

Phoenix Rising Alternative High School

2021, What makes the body go round?

Oklahoma State University’s American Indians into Psychology Program

2021, Guest Lecture: Toll-like receptor signaling in depression

University of Tulsa, Introduction to Neuroscience

2020, Guest Lecture: Toll-like receptor signaling in depression

Tulsa Community College

2015, Southeast Campus. Guest Lecturer for Intro to Biology for Majors, “TLR4 and Neuroinflammation”

2013, Metro Campus. Guest Lecturer for Physiology, “Toll-like Receptors: An In-Depth Look”

Oklahoma State University-CHS

2012-2013, Teaching Assistant for OSU-CHS Summer Academy, “Mysteries of Biomedical Sciences”

University of Maryland, School of Medicine, Department of Medical Research Technology

2009-2010, Guest Lecturer for Undergraduate Senior Applied Cellular and Molecular Biology, “Two-Component

Regulatory Systems”

Other

Mentoring: high school, undergraduate, and medical students (OSU, Yale); research assistants and postdoctoral research associates at LIBR (LIBR Research Day/K Club/grant writing)

Scientific Collaborations: LIBR (Drs. Kaiping Burrows, Jennifer Stewart, Salvador Guinjoan); University of Oklahoma (OU), Integrative Immunology Center (Dr. Kent Teague); OU, Health Sciences Center (Drs. Rajagopal Ramesh, Bethany Hannafon); University of California, San Diego (Dr. Victoria Risbrough)

Professional Affiliations

2022-Present- International Society of Extracellular Vesicles (ISEV)

2016-Present- Society for the Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS)

2015-2021-The American Physiological Society (APS)

2009-2016- American Association of Immunologists (AAI)

2012-2016- Society for Neuroscience (SFN)

2015, 2016-American Society for Pharmacology and Experimental Therapeutics (ASPET)

Professional Service

Laureate Institute for Brain Research

2023-present; Warren K. William Frontiers in Neuroscience Lecture Series Coordinator

2021-2023, LIBR Research Day Judge

2022-2023, Brownbag Series Coordinator

2020-2021, Diversity Committee-Secretary

Ad hoc Reviewer

American Journal of Physiology- Cell Physiology

Bosnian Journal of Biomedical Sciences

Brain, Behavior, and Immunity

British Journal of Pharmacology

Cellular and Molecular Biology of Glia (CMBG) Study Section-NIH

Journal of Affective Disorders

Journal of Extracellular Vesicles

Physiological Genomics

Psychological Medicine

Annual Biomedical Research Conference for Minority Students (ABRCMS)

2016, 2022, 2023 Abstract Reviewer

Yale University, School of Medicine

2018-2019, Yale Postdoctoral Association- Secretary

Oklahoma State University

2017-Present, Manuscript Reviewer for Oklahoma State Medical Proceedings

2016, Judge for OSU 2016 Research Day (Medical Student Posters)

2015-2016, Judge for OSU Scholar Development Research Symposium

The American Physiological Society

2018- Experimental Biology; Judge for APS Undergraduate Poster Session

2016-Experimental Biology; Judge for APS Bruce Undergraduate Poster Session

2016- FASEB Postdoctoral Preparation Institute 2016

2016- Writing and Reviewing for Scientific Journals Course

TABERC/SFN/OPS Annual Meeting

2017, Judge for high school poster session

Society for the Advancement of Chicanos, Latinos, and American Indians

2016, Abstract Reviewer

Community Service

Laureate Institute for Brain Research

2024-Present; Diversity Training/Fellowship Subcommittee

2020-Present; Philanthropy and Community Engagement- LIBR Diversity Subcommittee

2012-2015

Eugene Field (EF) Elementary School, Tulsa, OK

2015-2016, Reading Partners; 2013-2014, Lunch Buddy Program; 2013-2014, Global Gardens

Oklahoma State University, CHS, Biomedical Sciences Graduate Student Association

2014-2017, Member: Curious Cowboys STEM Camp; Roy Clark Elementary STEM Night; EF Science Fair

2015; Videoconference: Professional Development Series (organizer):

- “An Introduction to Fellowship Opportunities and Grant Writing”, by Dr. Albert Avila, NIH-NIDA
- “Manuscript: Authorship and the Submission/Review Process,” by Dr. Sue Barman, Michigan State University

2013-2014, President: Curriculum Oversight Committee-Graduate Student Member; EF Science Fair

2012-2013, Vice-President: Zumbathon for Alliance for Lupus Research (Organizer); EF Science Fair