

Diana B. Voss

Middle Tennessee State University

Department of Biology, Murfreesboro, TN 37129

ORCID: 0000-0001-7675-9951

Publications appear under both D. Fulmer and D. Voss.

Email: diana.voss@mtsu.edu

Web: thevossilab.com

RESEARCH PROGRAM

The Voss Laboratory investigates the molecular mechanisms of cardiovascular development and congenital heart disease pathogenesis. We study how the histone modification and spatiotemporal positioning of chromatin within the nucleus influences the adoption and maintenance of cardiac cell identity, signaling, and morphological patterning. Combining transgenic mouse and cell-culture models with genome-profiling assays such as CUT&RUN and high-resolution imaging approaches such as Oligopaints, my group probes how disruptions to nuclear architecture drive congenital disease, with the goal of defining the epigenetic rules that govern cardiac and neural crest cell fate.

Research interests: cardiovascular development · congenital heart disease · nuclear architecture · histone modifications · chromatin organization · cell fate · single ventricle diseases

ACADEMIC APPOINTMENTS

Assistant Professor of Physiology

Aug 2026 – present

Department of Biology

Middle Tennessee State University, Murfreesboro, TN

EDUCATION & TRAINING

Postdoctoral Researcher, University of Pennsylvania

2020 – 2026

Advisor: Jonathan A. Epstein · Epigenetic regulation of cardiogenesis

Ph.D., Biomedical Sciences, Medical University of South Carolina

2015 – 2020

Dissertation Advisor: Russell Norris · Cardiac valve development & ciliogenesis

B.S., Biology, College of Charleston

2010 – 2014

Research Advisor: Agnes Southgate · Insect flight muscles

GRANTS & FUNDING

Active Awards

Additional Ventures Catalyst to Independence Award (Level II) — \$740,416

2026 – 2029

Role: Principal Investigator. Faculty-phase award supporting establishment of an independent research program.

Completed Awards

Additional Ventures Catalyst to Independence Award (Level I) — \$459,584

2024 – 2026

Postdoctoral-to-faculty transition award; one of three awarded in 2024.

Ruth L. Kirschstein NRSA (T32), \$55K — Postdoctoral

2021 – 2022

NIAMS, 5T32AR053461. Role: Trainee.

Ruth L. Kirschstein NRSA (F31), \$48K — Predoctoral

2018 – 2020

NHLBI, 1F31HL142159. Role: Fellow.

Ruth L. Kirschstein NRSA (T32), \$45K — Predoctoral
NHLBI, 2T32HL007260. Role: Trainee.

2016 – 2018

SELECTED HONORS & AWARDS

Poster Presentation Prize — Weinstein Cardiovascular Development Conference, Montreal	2024
Distinguished Graduate (top Ph.D. graduate) — Medical University of South Carolina	2020
1st Place, Poster Competition — Heart Valve Society 5th Annual Meeting, Sitges, Spain	2019
Eric James Award, 1st Place Oral Presentation — Halushka Student Research Day, MUSC	2018
1st Place, Infographic Competition — South Carolina Impact	2018
ASCB EMBO Meeting Travel Award — American Society for Cell Biology	2017

PEER-REVIEWED PUBLICATIONS

** equal contribution*

Voss, D., Li, L., Li, J., Shields, E., Poleshko, A., Wang, R., Calcagno, M., Jain, R., Smith, C., Epstein, J.; Combined loss of histone methyltransferases GLP and G9a disrupts neural crest cell fate determination. In press at the Journal of Clinical Investigation, doi: 10.1172/JCI205970.

Fulmer, D.*, Shields, E.*, Poleshko, A., Epstein, J.A., Smith, C.; Reorganization of H3K9me2-modified chromatin regions during mouse embryonic development. *Developmental Biology*, December 2025, Volume 528, p. 188-203, doi: doi.org/10.1016/j.ydbio.2025.09.005, Epub: September 17, 2025, PMID: 40972967.

Chang, S., **Fulmer, D.**, Hur, S., Thorvaldsen, J., Li, L., Lan, Y., Rhon-Calderon, E., Chen, X., Epstein, J., Bartolomei, M.; Dysregulated H19/Igf2 expression disrupts cardiac-placental axis during development of Silver-Russell-syndrome-like mouse models. *ELife*, Nov 28, 2022, e78754, doi:10.7554/eLife.78754, PMID:36441651. Pre-print doi:10.1101/2022.03.28.486058.

Beck, T., Arhontoulis, D., Morningstar, J., Hyams, N., Stoddard, A., Springs, K., Mukherjee, R., Helke, K., Guo, L., Moore, K., Gensemer, C., Biggs, R., Petrucci, T., Kwon, J., Stayer, K., Koren, N., Dunne, J., **Fulmer, D.**, Vohra, A., Mai, L., Dooley, S., Weninger, J., Vaena, S., Romeo, M., Muise-Helmricks, R., Mei, Y., Norris, R.; Cellular and Molecular Mechanisms of MEK1 Inhibitor-Induced Cardiotoxicity. *JACC CardioOncology*, Nov 15, 2022, Volume 4, Issue 4, doi:10.1016/j.jaccao.2022.07.009, Epub: Nov 2022, PMID:36444237.

Beck, T., Springs, K., Morningstar, J., Mills, C., Stoddard, A., Guo, L., Moore, K., Gensemer, C., Biggs, R., Petrucci, T., Kwon, J., Stayer, K., Koren, N., Dunne, J., **Fulmer, D.**, Vohra, A., Mai, L., Dooley, S., Weninger, J., Peterson, Y., Woster, P., Dix, T., Norris, R.; Application of Pharmacokinetic Prediction Platforms in the Design of Optimized Anti-Cancer Drugs. *Molecules*, Jun 8, 2022, Volume 27, Issue 12, doi:10.3390/molecules27123678, PMID:35744803.

Moore, K., Moore, R., **Fulmer, D.**, Guo, L., Gensemer, C., Stairley, R., Glover, J., Beck, T., Morningstar, J., Biggs, R., Mukherjee, R., Awgulewitsch, A., Norris, R.; Dchs1, Lix1L, and the Septin Cytoskeleton: Molecular and Developmental Etiology of Mitral Valve Prolapse. *Journal of Cardiovascular Development and Disease*, February 17, 2022, Volume 9, Issue 2, doi:10.3390/jcdd9020062, PMID:35200715.

Morningstar, J., Gensemer, C., Moore, R., **Fulmer, D.**, Beck, T., Wang, C., Moore, K., Guo, L., Sieg, F., Nagata, Y., Bertrand, P., Spampinato, R., Poelzing, S., Glover, J., Gourdie, R., Watts, K., Richardson, W., Levine, R., Borger, M., Norris, R.; Mitral valve prolapse induces regionalized myocardial fibrosis.

- Journal of the American Heart Association, December 21, 2021, Volume 10, Issue 24, Epub: December 7, 2021, doi:10.1161/JAHA.121.022332, PMID: 34873924.
- Guo, L., Beck, T., **Fulmer, D.**, Ramos-Ortiz, S., Glover, J., Wang, C., Moore, K., Gensemer, C., Morningstar, J., Moore, R., Schott, JJ, Tourneau, T., Koren, N., Norris, R.; DZIP1 regulates mammalian cardiac valve development through a Cby1-b-catenin mechanism. *Developmental Dynamics*, Epub: April 2, 2021, doi:10.1002.dvdy.342, PMID: 33811421.
- Moore, K., **Fulmer, D.**, Guo, L., Koren, N., Glover, J., Moore, R., Gensemer, C., Beck, T., Morningstar, J., Stairley, R., Norris, R.; PDGFRa: Expression and Function during Mitral Valve Morphogenesis. *Journal of Cardiovascular Development and Disease*, March 13, 2021, Volume 8, Issue 3, p. 28, doi:10.3390/jcdd8030028, PMID: 33805717.
- Guo, L., Glover, J., Risner, A., Wang, C., **Fulmer, D.**, Moore, K., Gensemer, C., Rumph, M., Moore, R., Beck, T., Norris, R.; Dynamic expression profiles of b-catenin during murine cardiac development. *Journal of Cardiovascular Development and Disease*, August 2020, Volume 7, Issue 3, E31, doi:10.3390/jcdd7030031, PMID: 32824435.
- Fulmer, D.**, Toomer, K., Glover, J., Guo, L., Moore, K., Moore, R., Stairley, R., Gensemer, C., Abrol, S., Rumph, M., Emetu, F., Lipschutz, J., McDowell, C., Bian, J., Wang, C., Beck, T., Wessels, A., Renault, M., Norris, R.; Desert Hedgehog-primary cilia cross talk shapes mitral valve tissue by organizing smooth muscle actin. *Developmental Biology*, July 2020, Volume 463, Issue 1, p. 26-38, doi:10.1016/j.ydbio.2020.03.003, Epub: March 6, 2020, PMID: 32151560.
- Fulmer, D.**, Toomer, K., Guo, L., Moore, K., Glover, J., Moore, R., Stairley, R., Lobo, G., Zuo, X., Dang, Y., Su, Y., Fogelgren, B., Gerard, P., Chung, D., Heydarpour, M., Mukherjee, R., Body, S., Norris, R., Lipschutz, J.; Defects in the exocyst-cilia machinery cause bicuspid aortic valve disease and aortic stenosis. *Circulation*, October 2019, Volume 140, Issue 16, p. 1331-1341, doi:10.1161/CIRCULATIONAHA.119.038376, Epub: August 7, 2019, PMID: 31387361.
- Toomer, K., Yu, M., **Fulmer, D.**, Guo, L., Moore, K., Moore, R., Drayton, K., Glover, J., Peterson, N., Ramos-Ortiz, S., Drohan, A., Catching, B., Stairley, R., Wessels, A., Lipschutz, J., Delling, F., Jeunemaitre, X., Dina, C., Collins, R., Brand, H., Talkowski, M., del Monte, F., Mukherjee, R., Awgulewitsch, A., Body, S., Hardiman, G., Hazard, S., Da Silveira, W., Wang, B., Leyne, M., Durst, R., Markwald, R., Le Scouarnec, S., Hagege, A., Le Tourneau, T., Kohl, P., Rog-Zielinska, E., Ellinor, P., Levine, R., Milan, D., Schott, J., Bouatia-Naji, N., Slaughter, S., Norris, R.; Primary cilia defects can cause mitral valve prolapse. *Science Translational Medicine*, May 2019, Volume 11, Issue 493, eaax0290, doi:10.1126/scitranslmed.aax0290, PMID: 31118289.
- Zuo, X., Lobo, G., **Fulmer, D.**, Guo, L., Dang, Y., Su, Y., Ilatovskaya, D., Nihalani, D., Rohrer, B., Body, S., Norris, R., Lipschutz, J.; The exocyst acting through the primary cilium is necessary for ciliogenesis, cystogenesis, and tubulogenesis. *Journal of Biological Chemistry*, April 2019, Volume 294, Issue 17, p. 6710-6718, doi:10.1074/jbc.RA118.006527, Epub: March 1, 2019, PMID: 30824539.
- Toomer, K., Sauls, K., **Fulmer, D.**, Guo, L., Moore, K., Glover, J., Stairley, R., Bishoff, J., Levine, R., Norris, R.; Filamin-A as a balance between Erk/Smad activities during cardiac valve development. *Anatomical Record*, January 2019, Volume 302, Issue 1, p. 117-124, doi:10.1002/ar.23911, Epub: October 5, 2018, PMID: 30288957.
- McGuier, N., Rinker, J., Cannady, R., **Fulmer, D.**, Jones, S., Hoffman, M., Mulholland, P.; Identification and validation of midbrain Kcnq4 regulation of heavy alcohol consumption in rodents. *Neuropharmacology*, August 2018, Volume 138, p. 10-19, doi:10.1016/j.neuropharm.2018.05.020, Epub: May 25, 2018, PMID: 29775679.
- Toomer, K., **Fulmer, D.**, Guo, L., Drohan, A., Peterson, N., Swanson, P., Brooks, B., Mukherjee, R., Body, S., Lipschutz, J., Wessels, A., Norris, R.; A role for primary cilia in aortic valve development and disease. *Developmental Dynamics*, August 2017, Volume 246, Issue 8, p. 625-634, doi:10.1002/dvdy.24524, Epub: June 28, 2017, PMID: 28556366.

- Lobo, G., **Fulmer, D.**, Guo, L., Zuo, X., Dang, Y., Kim, S., George, K., Su, Y., Obert, E., Fogelgren, B., Nihalani, D., Norris, R., Rohrer, B., Lipschutz, J.; The exocyst is required for normal photoreceptor and retinal development, suggestive of a conserved ciliogenic program across species and organs. *Journal of Biological Chemistry*, September 2017, Volume 292, Issue 36, p. 14814-14826, doi:10.1074/jbc.M117.795674, Epub: July 20, 2017, PMID: 28729419.
- Rinker, J., **Fulmer, D.**, Trantham-Davidson, H., Smith, M., Williams, R., Lopez, M., Miles, M., Becker, H., Chandler, J., Randall, P., Mulholland, P.; Differential potassium channel gene regulation in BXD mice reveals novel targets for pharmacogenetic therapies to reduce heavy alcohol drinking. *Alcohol*, February 2017, Volume 58, p. 33-45, doi:10.1016/j.alcohol.2016.05.007, Epub: June 27, 2016, PMID: 27432260.
- Ayme-Southgate, A., Feldman, S., **Fulmer, D.**; Myofilament proteins in the synchronous flight muscles of *Manduca sexta* show both similarities and differences to *Drosophila melanogaster*. *Insect Biochemistry and Molecular Biology*, July 2015, Volume 62, p.174-182, doi:10.1016/j.ibmb.2015.02.008, Epub: Mar 19, 2015, PMID: 25797474.

MANUSCRIPTS UNDER REVIEW

** equal contribution*

- Lee, J.*, **Voss, D.***, Pyle, S., Jones, E., Li, L., Brooks, L., Mourkioti, F.; Myocardial TRF2 regulates heterochromatin distribution and cardiac gene programs essential for early mouse development. Revision under review, copy available upon request.

INVITED ORAL PRESENTATIONS

- Voss, D.**; Neural crest cells in the development of single ventricle diseases. Additional Ventures Fellows Speaker Series, virtual, August 2026.
- Voss, D.**, Shields, E., Poleshko, A, Epstein, J.A., Smith, C.; Reorganization of H3K9me2-modified chromatin regions, DevBio Connect, May 2026.
- Voss, D.**, Shields, E., Jain, R., Smith, C., Epstein, J.A.; Histone methyltransferases GLP and G9a are required for cell fate determination of the neural crest. Weinstein Cardiovascular Development Conference, New York NY, May 2026.
- Fulmer, D.**; GLP/G9a histone methyltransferases are required for neural crest development. Society for Developmental Biology Ethel Browne Harvey Postdoctoral Seminar Series, March 2025.
- Fulmer, D.**, Epstein, J.A.; Neural crest development requires the histone methyltransferases GLP and G9a. Epigenetics Institute Retreat, Philadelphia PA, October 2024.
- Fulmer, D.**, Shields, E., Smith, C., Jain, R., Epstein, J.A.; A critical role for histone methyltransferases GLP/G9a in neural crest development. Department of Cell and Developmental Biology Retreat, Galloway, NJ, May 2024.
- Fulmer, D.**; Investigation of the Role of Histone Methyltransferases GLP and G9a During Cardiogenesis. Stanford, Penn, Duke, Cornell Research Symposium via prerecorded video, December 2023.
- Fulmer, D.**, Shields, E., Smith, C., Epstein, J.A.; Investigation of the Role of GLP/G9a Histone Methyltransferases in Cardiac Development and Disease. Platform presentation. Meeting of the ESC Working Group on Development, Anatomy and Pathology, Paris, France, November 2023.
- Fulmer, D.**, Toomer, K., Guo, L., Moore, K., Glover, J., Stairley, R., Moore, R., Lipschutz, J., Norris, R.; Desert Hedgehog (Dhh) signaling through primary cilia contributes to mitral valve morphogenesis and disease. MUSC Student Research Day, Charleston, SC, November 2018.
- Fulmer, D.**; Desert Hedgehog (Dhh) signaling, primary cilia and the development of mitral valve morphogenesis and disease. Cardiovascular Training Grant Retreat, Medical University of South Carolina, Charleston, SC, November 2018.

- Fulmer, D.**, Toomer, K., Guo, L., Moore, K., Glover, J., Stairley, R., Norris, R.; Desert Hedgehog (Dhh) signaling through primary cilia contributes to mitral valve morphogenesis and disease. Plenary session. 8th Biennial Heart Valve Biology & Tissue Engineering Meeting, London, UK, September 2018.
- Fulmer, D.**, Toomer, K., Guo, L., Moore, K., Glover, J., Stairley, R., Body, S., Lipschutz, J., Norris, R.; Exocyst mutations contribute to cardiac valvular disease through impaired ciliogenesis. Platform presentation. Heart Valve Society Meeting, New York, NY, April 2018.
- Fulmer, D.**, Toomer, K., Guo, L., Body, S., Lipschutz, J., Norris, R.; Exploration of Bicuspid Aortic Valve Disease as a Ciliopathy. Plenary session. Weinstein Cardiovascular Development and Regeneration Conference, Columbus, OH, May 2017.

POSTER ABSTRACTS

- Voss, D.**, Shields, E., Jain, R., Smith, C., Epstein, J.A.; Dual loss of histone methyltransferases GLP and G9a disrupts cell fate determination of the neural crest. Single Ventricle Investigators Meeting, Denver, CO, October 2026.
- Fulmer, D.**, Shields, E., Poleshko, A., Smith, C., Epstein, J.; H3K9me2 modified chromatin is rearranged in a cell-type specific manner during mouse embryonic development. EMBL Symposium: Cell biology of the nucleus, Heidelberg, Germany, November 2025.
- Fulmer, D.**, Shields, E., Wang, R., Calcagno, M., Jain, R., Smith, C., Epstein, J.A.; GLP/G9a are required to suppress alternative fate genes during cardiogenesis and disruption results in congenital defects. Weinstein Cardiovascular Development Conference, Milwaukee, WI, May 2025.
- Fulmer, D.**, Shields, E., Smith, C., Jain, R., Epstein, J.A.; Histone methyltransferases GLP/G9a are required for normal neural crest development. Single Ventricle Investigators Meeting, Denver, CO, October 2024.
- Fulmer, D.**, Shields, E., Smith, C., Jain, R., Epstein, J.A.; A critical role for histone methyltransferases GLP/G9a in neural crest development. Weinstein Cardiovascular Development Conference, Montreal Canada, May 2024.
- Fulmer, D.**, Smith, C., Wong, K., Epstein, J.; Investigating the Role of H3K9me2 Only Domains in Regulating Tissue-Specific Gene Expression. Penn Epigenetics Institute Retreat, January 2023.
- Fulmer, D.**, Smith, C., Wong, K., Epstein, J.; Investigating the Role of H3K9me2 Only Domains in Regulating Tissue-Specific Gene Expression. Penn-Stanford CVI Symposium, October 2022.
- Fulmer, D.**, Smith, C., Wong, K., Epstein, J.; Exploring the role of H3K9me2 in the specification and maintenance of cell identity. Cold Spring Harbor Laboratories Epigenetics & Chromatin Meeting, September 2022.
- Fulmer, D.**, Smith, C., Lan, Y., Epstein, J.; Investigating the role of H3K9me2 in regulating expression of cell-fate-specific gene programs. University of Pennsylvania Cell & Developmental Biology Retreat, May 2022.
- Fulmer, D.**, Toomer, K., Glover, J., Guo, L., Moore, K., Moore, R., Gensemer, C., Rumph, M., Emetu, F., Bian, J., Lipschutz, J., Norris, R.; Desert Hedgehog-primary cilia signaling shapes mitral valve morphogenesis and disease. Society for Developmental Biology Online Meeting, July 2020.
- Fulmer, D.**, Moore, R., Fogelgren, B., Toomer, K., Lilong, G., Lobo, G., Zuo, X., Norris, R., Lipschutz, J.; Defects in the exocyst-cilia machinery results in disease development across multiple organ systems. American Society of Nephrology Kidney Week Meeting, Washington D.C., November 2019.
- Fulmer, D.**, Toomer, K., Guo, L., Moore, K., Glover, J., Stairley, R., Moore, R., Gensemer, C., Rumph, M.K., Emetu, F., Bian, J., Beck, T., Abrol, S., Lipschutz, J., Norris, R.; Desert Hedgehog signaling contributes to mitral valve remodeling during development. 2019 Meeting of the ESC Working Group on Development, Anatomy and Pathology, Málaga, Spain, October 2019.
- Fulmer, D.**, Toomer, K., Guo, L., Moore, K., Glover, J., Stairley, R., Moore, R., McDowell, C., Lipschutz, J., Norris, R.; Desert Hedgehog signaling contributes to mitral valve development and disease. Heart Valve Society Meeting, Sitges, Spain, April 2019.

Fulmer, D., Guz, J., Norris, R., Wessels, A., Kern, M., Visconti, R., Awgulewitsch.; Uncovering novel Hoxc8 functional roles in vivo through CRISPR/Cas9 genome editing in mice. Twelfth Annual DCRI & Pediatrics Research Symposium, Charleston, SC, April 2019.

Fulmer, D., Toomer K., Guo, L., Moore, K., Glover, J., Stairley, R., McDowell, C., Lipschutz, J., Norris, R.; Desert Hedgehog Signaling Contributes to Mitral Valve Development and Disease. Regenerative Medicine Workshop, Charleston, SC, March 2019.

Fulmer, D., Fogelgren, B., Toomer, K., Guo, L., Norris, R., Lipschutz, J.; Cardiac valve abnormalities in PKD are due to defects in ciliogenesis, and ciliogenic programs involving the exocyst are conserved across organs. American Society of Cell Biology Annual Meeting, Philadelphia, PA, December 2017.

Fulmer, D., Fogelgren, B., Toomer, K., Norris, R., Lipschutz, J.; Cardiac valve abnormalities in PKD are due to defects in ciliogenesis, and ciliogenic programs involving the exocyst are conserved across organs. American Society of Nephrology Kidney Week Meeting, New Orleans, LA, November 2017.

Fulmer, D., Toomer, K., Guo, L., Brooks, B., Lipschutz, J., Norris, R.; Mitochondria, Primary Cilia, and Mitral Valve Prolapse. Oxidants, Redox Balance, and Stress Signaling Course, Karolinska Institutet, Stockholm, Sweden May 2017.

Fulmer, D., Toomer, K., Guo, L., Lipschutz, J., Norris, R.; Primary Cilia Contribute to Cardiac Valvular Diseases through DZIP1 and Exocyst Mutations. MUSC Department of Medicine Research Day, Charleston, SC March 2017.

Fulmer, D., Toomer, K., Guo, L., Johnson, A., Williams, L., Lipschutz, J., Norris, R.; Identification of DZIP1 Mutations in Patients with Mitral Valve Prolapse. MUSC Student Research Day, Charleston, SC November 2016.

Fulmer, D., Ayme-Southgate, A.; Alternative Splicing & Z-Band Protein Isoforms in *Manduca sexta*. College of Charleston 26th Annual School of Mathematics and Science Research Poster Session, Charleston, SC, April 2014.

CAMPUS & COMMUNITY TALKS

Accelerate to Academia. Postdoctoral Career Panel, Medical University of South Carolina, Charleston, SC, April 2021.

Lessons Learned. Distinguished Graduate Elizabeth Chesterman Memorial Lecture, Medical University of South Carolina, Charleston, SC, August 2020.

TEACHING

Courses Taught (Instructor of Record)

General Physiology (BIOL 4110-001) — Middle Tennessee State University Fall 2026
Lecture instructor of record (91 students); Course Director for four laboratory sections (BIOL 4111-001 – 004). Inherited course.

Prior Teaching Experience

Experimental Design Workshop, Group Leader — University of Pennsylvania Aug 2022
Supplementary Instruction, Ph.D. First-Year Curriculum — MUSC 2019 – 2020
Summer Undergraduate Research Course, Lecturer — MUSC 2018 & 2019

RESEARCH MENTORING

Trainees Mentored as Graduate Student & Postdoctoral Researcher

Epstein Laboratory, University of Pennsylvania

Mariacristina Calcagno — *Summer High School Researcher*

Summer 2024

Roger Wang — <i>Summer Undergraduate Researcher</i>	Summer 2024
---	-------------

Norris Laboratory, Medical University of South Carolina

Natalie Koren — <i>Technician</i>	Summer 2020
Annah Nieman — <i>PhD Rotation Student</i>	Spring 2020
Christina Wang — <i>PREP Student</i>	2019 – 2020
Sameer Abrol — <i>Intern</i>	Summer 2019
Justin Bian — <i>SC Governor's High School Researcher</i>	Summer 2019
Faith Emetu — <i>Undergraduate Researcher</i>	Summer 2019
Annette Krzyzanski — <i>Intern</i>	Summer 2019
Tyler Beck — <i>MD/PhD Trainee</i>	2019 – 2020
Colin McDowell — <i>PhD Rotation Student</i>	Fall 2018
William Reeder — <i>Master's Rotation Student</i>	Fall 2018
Cortney Gensemer — <i>PhD Trainee</i>	2018 – 2020
Mary Kate Rumph — <i>Master's Trainee</i>	2018 – 2020
Sandra Ramos-Ortiz — <i>Undergraduate Researcher</i>	Summer 2017
Rebecca Stairley — <i>Technician</i>	2017 – 2019
Janiece Glover — <i>Master's Trainee & Technician</i>	2017 – 2020
Kelsey Moore — <i>PhD Trainee</i>	2017 – 2020
Amanda Daulagala — <i>PhD Rotation Student</i>	Fall 2017
Michaela Hughes — <i>Technician</i>	2017
Ka'la Drayton — <i>Medical Rotation Student</i>	Summer 2017
Reece Moore — <i>Undergraduate & Medical Rotation Student</i>	2017 – 2020
Breiona Catchings — <i>Undergraduate Researcher</i>	Summer 2017
Brittany Brooks — <i>Technician</i>	2016 – 2017
Alex Drohan — <i>Undergraduate Researcher</i>	Summer 2016 & 2017
Neal Peterson — <i>Medical Rotation Student</i>	Summer 2016
Paige Swanson — <i>SC Governor's High School Researcher</i>	Summer 2016

Mulholland Laboratory, Medical University of South Carolina

Danyell Johnson — <i>Undergraduate Researcher</i>	Summer 2015
---	-------------

SERVICE

Institutional Service — Middle Tennessee State University

Undergraduate Curriculum & Assessment Committee, Member	AY 2026–27
Graduate Curriculum & Assessment Committee, Member	AY 2026–27
Graduate Student Awards Committee, Member	AY 2026–27
Student Travel Awards Committee, Member	AY 2026–27
Faculty Advisor, Project Hope (student community-service organization)	2026 – present

Professional Service — Peer Review

Ad hoc Reviewer, Circulation
 Ad hoc Reviewer, Circulation: Genomic and Precision Medicine
 Ad hoc Reviewer, Cardiovascular Research
 Ad hoc Reviewer, Insect Biochemistry and Molecular Biology

Institutional & Community Service (as Graduate Student & Postdoctoral Researcher)

EDI Committee, Cell & Developmental Biology Dept., University of Pennsylvania	2021 – 2023
---	-------------

Student Diversity & Inclusion Advisory Council, Founding Member — MUSC	2017 – 2020
SC PEACH Steering Committee & Founding Member (K-12 science outreach) — MUSC	2018 – 2020
SC PEAR, Founder & Steering Committee (policy advocacy & outreach) — MUSC	2019 – 2020
University Honor Council, Vice President — MUSC	2018 – 2019
Graduate Student Association, Treasurer — MUSC	2016 – 2018
First-Year Curriculum Steering Committee, Student Representative — MUSC	2015 – 2016
Student Research Day Committee — MUSC	2016 & 2017
Graduate Women in Science, Secretary — Charleston, SC	2018 – 2019

SCIENCE COMMUNICATION

X/Twitter Account Management — Dept. of Cell & Developmental Biology, UPenn	2021 – 2024
---	-------------

MEDIA COVERAGE

Life experiences lead Graduate Studies student to outstanding academic achievements, MUSC Catalyst News, May 15, 2020, <https://web.musc.edu/about/news-center/2020/05/15/graduate-studies>

Mutated ciliary genes tied to heart valve birth defect, The Medical News, September 17, 2019, <https://www.news-medical.net/news/20190917/Mutated-ciliary-genes-tied-to-heart-valve-birth-defect.aspx>

Defective cilia linked to heart valve birth defects, Science Daily, September 16, 2019, <https://www.sciencedaily.com/releases/2019/09/190916170110.htm>

Defective cilia linked to heart valve birth defects, EurekaAlert!, September 16, 2019, https://www.eurekaalert.org/pub_releases/2019-09/muos-dcl091619.php

PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science
 American Association for Anatomy
 American Heart Association
 American Society for Cell Biology
 European Society of Cardiology (WG on Development, Anatomy & Pathology)
 New York Academy of Sciences
 Phi Theta Kappa Honor Society
 Society for Developmental Biology