

CURRICULUM VITAE

Sarah Voth, Ph.D.

Assistant Professor

Department of Cell Biology and Physiology
Edward Via College of Osteopathic Medicine
4408 Bon Aire Drive | Suite 225 | Monroe, LA 71203

BIOGRAPHICAL INFORMATION

BIRTH DATE: January 4th

TELEPHONE: Office: (318) 342-7112

EMAIL: svoth@ulm.vcom.edu

EDUCATIONAL HISTORY

Institution and Location

Degree

Fields of Study

Our Lady of the Lake College
College of Arts & Sciences
Baton Rouge, LA

B.S.
Summa cum laude
4.0 GPA

Pre-med Track
Physiology
Pathogenic Microbiology
Cell Biology

University of South Alabama
College of Medicine
Center for Lung Biology
Mobile, AL

Ph.D.
4.0 GPA

Lung Biology Track
Vascular Biology Track
Infectious Disease
Cell Signaling

Yale University School of Medicine
Pulmonary, Critical Care, & Sleep
Medicine
New Haven, CT

Postdoctoral Fellowship

Lung Immunology
Host-Defense
Lung Infection

ADDITIONAL TRAINING

Cold Spring Harbor Course: Expression, Purification, and Analysis of Proteins and Protein Complexes, April 3-12, 2019.

Cold Spring Harbor Course: Mouse Engineering, June 15-18, 2021.

American Association of Laboratory Animal Science: 2021

Certified (ABSL2 and ABSL3):

- 1) Animal Biosafety Training
- 2) Transgenic Training Program
- 3) Laboratory Animal Research Support

RACE training (ABSL2 and ABSL3): Inhalation Anesthesia Training for Rodents, Aseptic Technique for Rodent Survival Surgery, Institutional Responsibilities and Animal Biosafety, Microbiological Decontamination in Containment, Select Agents and Toxins, Laboratory Animal Nutrition, Working with Mice and Rats, Occupational Health and Animal Biosafety

RESEARCH AND PROFESSIONAL EXPERIENCE

Graduate & Undergraduate Writing Tutor, All Departments 2011-2015
Engaged Learning Through Writing Initiative
Supervisors: Glenn Blalock, Ph.D. & Angus Woodward, M.F.A.
Our Lady of the Lake College

Undergraduate Teaching Assistant, Writing 2012-2015
Supervisor: Angus Woodward, M.F.A.
Our Lady of the Lake College

Undergraduate Laboratory Assistant, Microbiology 2013-2015
Supervisors: Brian Rash, Ph.D. & Deborah Fox, Ph.D. MT (ASCP)
Our Lady of the Lake College

Undergraduate Research Assistant, Physiology 2013-2015
Our Lady of the Lake College

Research focus:

- The generation of an equation to derive the value of arterial oxygen tension via measured hemoglobin saturation that would not rely on iteration through the integration of the Hill, Severinghaus, Thomas, and Kelman equations.

Research mentor: Albert Swafford Jr., Ph.D.

- The elucidation of the effect of nosocomial infection on autophagy using *C. elegans* as a model organism.

Research mentor: Natalie Lenard, Ph.D.

Graduate & Undergraduate Teaching Assistant, Physiology 2013-2015
Supervisors: Albert Swafford Jr., Ph.D. & Phyllis Simpson, Ph.D.
Our Lady of the Lake College

Graduate Research Assistant, Department of Physiology & Cell Biology 2016
University of South Alabama College of Medicine

Research mentor: Mary I. Townsley, Ph.D.

Research focus:

- Ultrastructural survey of pulmonary microvascular endothelium including organellar density of potential calcium stores and the proximity of mitochondria and ER to endothelial junctions.

NIH Predoctoral Fellow, Department of Physiology & Cell Biology 2016-2020
University of South Alabama College of Medicine

Research mentor: Troy Stevens, Ph.D.

Research focus:

- The delineation of the bacterial-induced mechanisms that drive the conversion of endothelial amyloid innate effectors to become cytotoxic prions secondary to nosocomial lung infection.

NIH Postdoctoral Fellow, Section of Pulmonary, Critical Care, & 2020-2021
Sleep Medicine, Department of Internal Medicine
Yale University School of Medicine

Research mentor: Charles Dela Cruz, M.D., Ph.D.

Research focus:

- Disambiguation of the mechanisms through which *Klebsiella pneumoniae* breaches the air-blood barrier leading to bacteremia secondary to nosocomial pneumonia.
- Investigate the role(s) of endothelial amyloids in host-defense during both bacterial and viral lung infection.

Assistant Professor, Department of Cell Biology & Physiology 2021-present
Edward Via College of Osteopathic Medicine (VCOM) - Louisiana

Supervisor: Pawel Michalak, Ph.D.

Research focus:

- Determination of the therapeutic potential of innate endothelial amyloid prions as well as their function in host-defense e.g., immune surveillance and trained immunity.
- Delineation of the mechanisms through which lung infection with common respiratory pathogens such as *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, and coronavirus convert protective endothelial amyloids into cytotoxic prions.

SCHOLARSHIPS

- Agnes T. Maguire Trust Scholarship, 2013-2015.
- Abstract Scholarship Award, American Thoracic Society International Conference, 2018.
- National Cancer Institute Scholarship, 2019.
- National Cancer Institute Scholarship, 2021

CURRENT GRANT SUPPORT

VCOM REAP 2022-2023
TITLE: *Cytoprotective Endothelial Amyloids*
Principle Investigator: **S. Voth**
Funded: \$40,000

*NIH/NHLBI K01, AHA CDA, ALA Catalyst, NIH/NHLBI R03 applications in development

PAST GRANT SUPPORT

T32 HL007778 2021
NIH/NHLBI
TITLE: *Training in Translational Lung Biology and Pathobiology*
This training program is designed to prepare highly qualified postdoctoral fellows for research careers in respiratory biology and disease pathogenesis.
Principle Investigator: N. Kaminski Postdoctoral Trainee: **S. Voth**

F31 NRSA Predoctoral Fellowship 1F31HL147512-01 2019 – 2021
NIH/NHLBI
TITLE: *Cytotoxic Lung Endothelial Amyloids*
Principle Investigator: **S. Voth** Sponsor: T. Stevens
Funded: \$59,000

T32 HL076125 2016 - 2019
NIH/NHLBI
TITLE: *Training in cell signaling and lung pathobiology*
Principle Investigator: T. Stevens and T. Rich Predoctoral Trainee: **S. Voth**

HONORS

- Captain of USPC Eventing Area II Regional Championship Team 1989-1990
- Captain of USPC Eventing Area II/III National Championship Team 1989-1990
- USPC Area II/III Guiding Light Award, 1990
- Kahala International Same Store Sales Award, 2007
- Kahala International Manager of the Year, 2008
- 6 - Kahala International GS Awards for Top-Performing 3% of All Stores in Domestic and International Markets, 2007-2010
- 10 - Kahala International Store of the Quarter Awards, 2008-2010.
- Our Lady of the Lake College President's List - All Semesters, 2010-2015.
- Who's Who in American Colleges and Universities, 2012-2014.
- Our Lady of the Lake College Student Ambassador, 2013-2014.
- Graduated *Summa Cum Laude* from Our Lady of the Lake College, 2015.
- Our Lady of the Lake College President's Medal - Highest GPA of Spring Commencement, 2015.
- Young Investigator Award, The Grover Conference of the American Thoracic Society, 2017.
- Abstract Scholarship Award, American Thoracic Society, 2018.
- Samuel J. Strada Travel and Enhancement Award, University of South Alabama College of Medicine, 2019 and 2020.
- National Cancer Institute Scholarship, 2019 and 2021.
- Elected to Sigma Xi (International Science Honor Society) – Associate member, 2020-present.
- **[INVITED]** Editing coordinator for *Frontiers in Physiology* journal's special edition: *Acute to Chronic Illness and Long-term Outcomes of Pneumonia in the Critical Care Setting: Mechanisms and Insights*, 2022-2023.

ORIGINAL PUBLICATIONS

1. Petranka, J, Hopey M, Jennings B, Baird S, **Boone S. J.** 1994. Breeding habitat segregation of wood frogs and American toads: The role of interspecific tadpole predation and adult choice. *Copeia*. 1994:691–697.
2. Lin M, Balczon R, Pittet J-F, Wagner B, Moser S, Morrow K, **Voth S**, Francis M, Leavesley S, and Stevens T. Nosocomial pneumonia elicits an endothelial proteinopathy: Evidence for a source of neurotoxic amyloids in critically ill patients, *Am. J. Resp. Crit. Care Med.*, 198: 1575-1578, 2018. doi:10.1164/rccm.201801-0060LE
3. Balczon R, Pittet J-F, Wagener B, Moser S, **Voth S**, Vorhees C, Williams M, Bridges J, Alvarez DF, Koloteva A, Xu Y, Zha X, Stevens T, and Lin M. Infection-induced endothelial amyloids impair memory, *FASEB J.*, 33(9):10300-10314, 2019. doi: 10.1096/fj.201900322R
4. **Voth S**, Gwin M[&], Francis M, Frank DW, Balczon R, Pittet J-F, Wagner B, Moser S, Alexeyev M., Housley N, Audia JP, Piechocki S[^], Madera K[#], Simmons A[#], Crawford M[#], and Stevens T. *Pseudomonas aeruginosa* type III secretion system effectors convert antimicrobial endothelial amyloids into cytotoxic prions, *FASEB J.*, 34(7): 9156-9179, 2020. doi: 10.1096/fj.202000051RRR
5. Scott A[#], Jager A, Gwin M, **Voth S**, Balczon R, Stevens T, and Lin M. Pulmonary endothelium-derived cytotoxic amyloids impair neuronal dendritic spines, *Sci. Rep.*, 10: 9327, 2020. doi: 10.1038/s41598-020-66321-1.
6. Balczon R, Morrow KA, Leavesley S, Francis CM, Stevens TC, Agwaramgbo E, Williams C, Stevens RP, Langham G, **Voth S**, Cioffi EA, Weintraub SE, and Stevens T. Cystatin C regulates the cytotoxicity of infection-induced endothelial-derived beta amyloid. *FEBS Open Bio.*, 2020. doi: 10.1002/2211-5463.12997
7. Lee J-Y, Stevens R, Kash M, Alexeyev M, Balczon R, Zhou C, Renema P, Koloteva Anna, Kozhukhar N, Pastukh V, Gwin M, **Voth S**, deWeever A, Wagener B, Pittet J-F, Eslaamizaad Y, Siddiqui W, Nawaz T, Clarke C, Fouty B, Audia J, Alvarez D, Stevens T. Carbonic anhydrase IX and hypoxia promote rat pulmonary endothelial cell survival during infection. *Am J Respir Cell Mol Biol*. Dec;65(6):630-645, 2021. doi: 10.1165/rcmb.2020-0537OC.
8. Balczon R, Lin M, Lee JY, Abbasi A, Renema P, **Voth S**, Zhou C, Koloteva A, Francis M, Sodha NR, Pittet J-F, Wagener B, Bell J, Choi CS, Ventetuolo CE, Stevens T. Pneumonia initiates a tauopathy. *FASEB J*, 35(9): e21807, 2021. doi.org/10.1096/fj.202100718R
9. Choi CS, Gwin M[&], **Voth S**, Kolb C, Zhou C, Nelson A, deWeever A, Koloteva A, Annamdevula NS, Murphy JM, Wagener B, Pittet J-F, Lim S-TS Balczon R, Stevens T. Cytotoxic tau released from lung microvascular endothelial cells upon infection with *P. aeruginosa* promotes neuronal tauopathy, *J Biol Chem*. Dec 8;298(1):101482, 2021. doi: 10.1016/j.jbc.2021.101482.
10. Peng X, Kim J, Salimi U, Gupta G, Agaryonyn K, Mankowski M, Korde A, Takyar S, Shin H-J, Habet V, **Voth S**, Audia JA, De C, Liu X, Wang L, Tian X, Ishibe S, Kang M-J, Compton S, Wilen CB, Dela Cruz CS, Sharma L. Coronavirus lung infection impairs host immunity against secondary bacterial infection by promoting lysosomal dysfunction, **in press**, *J Immunol*. 2022.

11. Gwin M[&], Alexeyev M, Geurtz A, Lee JY, Zhou C, Yang X-M, Cohen M, Downey JM, Barrington R, Spadafora D, **Voth S**, Audia JP, Frank DW, Pastukh V, Ayers L, Nelson A, Balczon R, Lin M^{*}, and Stevens T^{*}. Gamma secretase activating protein promotes end-organ dysfunction following bacterial pneumonia, **submitted**, *PNAS*, 2022.
12. **Voth S**, Morrow KA, Choi CS, Frank DW, Gautam S, Lin M, Alexeyev M, Stevens T, Gwin M[&], Sharma L, Dela Cruz C. Amyloid precursor protein contributes to host-defense in the lung, **in preparation**, 2022.
13. **Voth S**, Madera K[#], Piechocki S[^], Morrow KA, Morrow R, Audia JP, Choi CS, Barrington R, Wagener B, Pittet JF, Sharma L, Dela Cruz C, and Stevens T. Lung endothelial amyloids are prion-like innate defense peptides, **in preparation**, 2022.
14. **Voth S**, Morrow KA, Piechocki S[#], Stevens R, Gwin M, Zhou C, Barrington R, Frank DW, Audia JP, Knighten J, Francis CM, Lee JY, and Stevens T. Cytoprotective amyloids promote innate immune memory, **in preparation**, 2022.
15. **(INVITED) Voth S**, Lin M, Balczon R, Wagener B, Morrow KA, Abbasi A, Ventetuolo C, Alvarez D, Audia JP, Pittet JF, Gautam S, and Stevens T. Lung endothelial amyloids in health and disease, *Physiol Rev*, **in preparation**, 2022.
16. Gwin M[&], **Voth S**, Geurts, A, Kozhukhar N, Pastukh V, Alexeyev M, Francis M, Subedi S, Onanyan N[#], Darby A[#], and Stevens T. Gamma Secretase Activating Protein contributes to the virulence of ExoY-induced cytotoxic endothelial amyloids, **in preparation**, 2022.
17. deWeever A.[&], Gwin M.[&], **Voth S.**, Paudel S, Balczon R., Leavesley, S., and Stevens T. Autofluorescence properties of lung endothelial amyloids: Discriminating antimicrobial from cytotoxic species, **in preparation**, 2022.
18. Zhou C^{*}, **Voth S^{*}**, Morrow KA, Simmons A[#], Gwin M[&], Subedi S, Wagener B, Pittet JF, Moser S, and Stevens T. Heterogeneity in production of infection-elicited amyloids among endothelial phenotypes: Implications for the source of infection, **in preparation**, 2022.
19. **Voth S**, Gautam S, Lee JY, Wagener B, Stevens T, Kulkarni K[§], and Morrow KA. Acute-to-chronic disease following pneumonia, **in preparation**, 2022.

*equal contributions

[^]mentored allopathic medical student

[#]mentored undergraduate student

[&]mentored graduate student

[§]mentored osteopathic medical student

SELECTED ABSTRACTS

1. **Voth SB**, Balczon R, Francis CM, Audia J, and Stevens T. Lung infection elicits endothelial amyloids with distinguishable antimicrobial and cytotoxic properties. *Am. J. Respir. Crit. Care Med.*, 197: A7616, 2018.
2. **Voth SB**, Lin M, Balczon R, Francis CM, Stevens T. Nosocomial lung infection induces a pulmonogenic prionopathy that disrupts the endothelial barrier of the brain. *Am. J. Respir. Crit. Care Med.*, 197: A7615, 2018.
3. **Voth SB**, Balczon R, Francis M, and Stevens T. *Pseudomonas aeruginosa* Exoenzyme Y intoxication reversibly converts antimicrobial endothelial amyloids into amyloid prions. *Am. J. Respir. Crit. Care Med.*, 197: A7616, 2018. **Abstract Scholarship Award**
4. Berrou M, Stevens R, **Voth S**, Williams C, Balczon R, Stevens T. *Pseudomonas aeruginosa* induced lung endothelial amyloid proteinopathy: Characteristics and inhibitors. *Am. J. Respir. Crit. Care Med.*, 197: A7615, 2018.
5. Lee J, **Voth SB**, Balczon R, Stevens T. Cytotoxic amyloids inhibit carbonic anhydrase IX in pulmonary microvascular endothelial cells: A potential mechanism of acid dysregulation and cell death during infection. *Am. J. Respir. Crit. Care Med.*, 197: A7615, 2018.
6. Lee J, White R, **Voth SB**, Balczon R, Stevens T. A dual effect of acidosis on pulmonary microvascular cell survival during infection: Acid post-conditioning for pneumonia? *Am. J. Respir. Crit. Care Med.*, 197: A7615, 2018.
7. **Voth SB**, Piechocki S, Gwin M, Francis CM, and Stevens T. Pulmonary endothelium generates antimicrobial prions as an innate defense mechanism. *Am J Respir Crit Care Med*, 199: A1984, 2019.
8. **Voth SB**, Gwin S, Crawford M, Saleh LA, Francis CM, Pittet J-F, Wagener BM, Moser S, and Stevens T. Clinical strains of ExoY-competent pseudomonas elicit cytotoxic endothelial amyloid prions, *Am J Respir Crit Care Med*, 199: A1986, 2019.
9. **Voth SB**, Gwin S, Francis CM, and Stevens T. Attenuation of beta amyloid release during *Pseudomonas aeruginosa* ExoY intoxication preserves innate antimicrobial activity of endothelial amyloids, *Am J Respir Crit Care Med*, 199: A1985, 2019.
10. Gwin M, **Voth SB**, Francis CM, Balczon R, and Stevens T. Gamma Secretase Activating Protein is necessary for endothelial dysfunction and production of cytotoxic beta amyloid during bacterial infection, *Am J Respir Crit Care Med*, 199: A1975, 2019.
11. deWeever, Gwin M, **Voth SB**, Francis CM, Balczon R, and Stevens T. Lung endothelium produces cytotoxic, oligomer-like tau fragments during bacterial infection, *Am J Respir Crit Care Med*, 199: A1979, 2019.
12. **Voth S**, Madera K, Gwin M, Frank DW, Francis M, Barrington R, and Stevens T. Lung endothelial amyloids: Biofilms, host defense, and training the endothelium, Gordon Conference and Symposium: 'Biology of Acute Lung Infection', Galveston, TX, 2020.

13. deWeever, Gwin M, **Voth S**, Balczon R, and Stevens T. Unraveling the Autofluorescence Properties of Pulmonary Amyloids: Prelude to a Point-of-Care Detection Method in Critically Ill Patients, *Am J Respir Crit Care Med*, 201: A5254, 2020.
14. Gwin M, **Voth S**, Subedi Paudel S, Onanyan N, Darby A, Francis CM, and Stevens T. Essential Role for Gamma Secretase Activating Protein (GSAP) in Infection-Elicited Endothelial Proteinopathy, *Am J Respir Crit Care Med*, 201: A5254, 2020.
15. Stevens R, Balczon R, Weintraub S, Zhou C, Koloteva A, Renema P, Gwin M, **Voth S**, Stevens T, and Lee JY. Carbonic Anhydrase IX is shed from pulmonary microvascular endothelial cells and increases in the plasma of rat and human pneumonia subjects, *Am J Respir Crit Care Med*, 201: A7851, 2020.
16. **Voth S**, Madera K, Gwin M, Francis M, deWeever A, Pittet J-F, Wagener B, Moser S, and Stevens T. Cytoprotective amyloids function in endothelial-trained immunity and biofilm prevention, *Am J Respir Crit Care Med*, 201: A5254, 2020.
17. **Voth S**, Zhou C, Simmons A, Gwin M, Francis M, deWeever A, and Stevens T. Heterogeneity in production of infection-elicited amyloids among endothelial phenotypes: Implications for the source of infection, *Am J Respir Crit Care Med*, 201: A5254, 2020.
18. **Voth S**, Gwin M, Darby A, Onanyan N, Francis M, deWeever A, and Stevens T. Deletion of endothelial gamma secretase activating protein protects innate amyloid function during virulent infection, *Am J Respir Crit Care Med*, 201: A5254, 2020.
19. Gwin M, Geurts A, Zhou C, Lin M, **Voth S**, Alexeyev M, Pastukh V, Lee JY, Balczon R, and Stevens T. A first-in-kind knockout rat reveals a lung- and brain-protective role for gamma-secretase activating protein, Aspen Lung Conference, 2021.
20. **Voth S**, Choi C-S, Morrow KA, Gwin M, Knighten J, Francis CM, Lin M, Gautam S, Frank DW, Audia JP, Stevens T, Sharma L, and Cruz CD. Amyloid-beta precursor protein: Essential to lung capillary barrier defense during acute infection, *FASEB J*, 36: S1, 2022. doi: 10.1096/fasebj.2022.36.S1.R5635

SCHOLARLY LECTURES

1. **(INVITED)** The Grover Conference. Sedalia, CO; 2017. *Lung infection elicits endothelial amyloids with distinguishable antimicrobial and cytotoxic properties.*
2. **(INVITED)** American Thoracic Society International Conference. San Diego, CA; 2018. *Lung infection elicits endothelial amyloids with distinguishable antimicrobial and cytotoxic properties.*
3. **(INVITED)** American Thoracic Society International Conference. San Diego, CA; 2018. *Nosocomial lung infection induces a pulmonogenic prionopathy that disrupts the endothelial barrier of the brain.*
4. **(INVITED)** Gordon Research Seminar: Biology of Acute Respiratory Infection. Galveston, TX; 2020. *Infection-generated cytoprotective amyloids function in endothelial trained immunity and biofilm prevention.*

5. **(INVITED)** Washington University School of Medicine, Division of Pulmonary and Critical Care Medicine: *Endothelial Amyloids: An Innate Response to Acute Lung Infection*, March 23, 2020 (cancelled due to COVID-19).
6. **(INVITED)** American Physiological Society International Conference. Philadelphia, PA; 2022. *Amyloid-beta precursor protein: Essential to lung capillary barrier defense during acute infection.*
7. **(INVITED)** 5th International Caparica Congress on Antibiotic Resistance. Caparica, Portugal; 2022. *Lung endothelial amyloids: Infection-elicited proteinopathy or cytoprotective antimicrobials?*

INTELLECTUAL PROPERTY

Voth S, Balczon R, Morrow K, and Stevens T. International patent cooperation treaty (PCT) WO/2020/051473. 2021. Entitled, *Infection-induced endothelial amyloid compositions as antimicrobials.*

Voth S, Barrington R, Frank D.W., and Stevens T. Intellectual Property Disclosure. Filed 8/7/2020. Entitled, *Vascular preconditioning with enriched amyloid assemblies protects endothelial barrier integrity during virulent infection.*

ACADEMIC TEACHING EXPERIENCE

<u>Courses</u>	<u>Level</u>	<u>Year</u>	<u>Role</u>
College Writing, I & II Our Lady of the Lake College	Undergraduate	2011-2015	Assistant
Fundamentals of Microbiology Our Lady of the Lake College	Undergraduate	2013-2015	Laboratory Assistant
Pathogenic Microbiology Our Lady of the Lake College	Undergraduate	2013-2014	Laboratory Assistant
Cardiovascular Physiology Our Lady of the Lake College	Undergraduate	2013-2014	Assistant
Renal Physiology Our Lady of the Lake College	Undergraduate	2014	Assistant
Respiratory Physiology Our Lady of the Lake College	Undergraduate	2015	Assistant
Anatomy, Physiology, & Pathophysiology I & II Our Lady of the Lake College	Graduate CRNA	2013-2014	Assistant

Medical Physiology Our Lady of the Lake College	Graduate <i>PA</i>	2014-2015	Assistant
Introduction to Infectious Disease University of South Alabama	Graduate <i>PA</i>	2016-2019	Guest Lecturer <i>Bacterial Pathogenesis</i>
Introduction to Infectious Disease University of South Alabama	Graduate <i>PA</i>	2017-2019	Guest Lecturer <i>Normal Flora</i>
Introduction to Infectious Disease University of South Alabama	Graduate <i>PA</i>	2017-2019	Guest Lecturer <i>Prions</i>
Introduction to Infectious Disease University of South Alabama	Graduate <i>PA</i>	2017-2019	Guest Lecturer <i>Adaptive Immunity</i>
Clinical Medicine II - Pulmonology University of South Alabama	Graduate <i>PA</i>	2017-2019	Guest Lecturer <i>Lung Mechanics</i>
Clinical Medicine II – Pulmonology University of South Alabama	Graduate <i>PA</i>	2017-2019	Guest Lecturer <i>Acid-Base Balance</i>
Medical Microbiology Lab University of South Alabama	Graduate <i>MD</i>	2018-2019	Lab Instructor
Medical Microbiology University of South Alabama	Undergraduate	2018	Guest Lecturer <i>Prions</i>
Neurological System & Special Senses VCOM – Louisiana	Graduate <i>DO</i>	2022 - present	Lecturer
Cardiovascular System VCOM – Louisiana	Graduate <i>DO</i>	2022 - present	Lecturer
Renal System VCOM - Louisiana	Graduate <i>DO</i>	2022 - present	Lecturer

MEMBERSHIPS

American Physiological Society (APS)

American Thoracic Society (ATS)

American Heart Association (AHA)

American Society of Microbiology (ASM)

Microcirculatory Society (MCS)

Sigma Xi Scientific Honor Society

American Association of Laboratory Animal Science (AALAS)

LABORATORY MENTORING EXPERIENCE

<u><i>Trainees</i></u>	<u><i>Level</i></u>	<u><i>Year</i></u>	<u><i>Role/Project</i></u>
Meredith Gwin	Graduate	2017	Rotation Student
Althea deWeever	Graduate	2017	Rotation Student
Ezinne Agwarambgo	Undergraduate SouthMed Prep Scholar	2017	Thioflavin T Studies of Amyloids
Scott Piechocki	Medical Student – M2	2018	Endothelial Amyloids Elicited by Non-virulent <i>P. aeruginosa</i> are Antimicrobial Prions
Michaela Crawford	Undergraduate SouthMed Prep Scholar	2018	ExoY-Competent Clinical Strains of <i>P. aeruginosa</i> Elicit Cytotoxic Amyloid Prions from the Pulmonary Endothelium
Kayla Madera	Undergraduate Office of Research, Education, and Training	2019	Endothelial Antimicrobial Amyloids in Innate Immune Surveillance
Autumn Simmons	Undergraduate Office of Research, Education, and Training	2019	Segment-Specific Endothelial Amyloid Heterogeneity
Nane Onanyan	Undergraduate Office of Research, Education, and Training	2019	Gamma Secretase Activating Protein Contributes to ExoY induced Endothelial Amyloid Cytotoxicity
Altonnesha Darby	Undergraduate SouthMed Prep Scholar	2019	Gamma Secretase Activating Protein Contributes to Suppression of ExoY-induced Endothelial Amyloid Antimicrobiccity
Kunal Karmilkar	Medical Student – OMS II		Cognitive Impairment Following Infection in the Critical Care Setting

SERVICE

- Special Olympics, Equestrian Event Coordinator, 1988-1990, 1992.
- University of Tennessee-Knoxville College of Veterinary Medicine Guest Instructor - Large Animal – Equines (Handling, Restraint, Longeing, Bandaging, Wrapping, and Loading), 1994-1996.
- Make-a-Wish Event Organizer, 2006-2010.
- 200 Service-Learning Hours at Our Lady of the Lake College, 2010-2015.
- Volunteer at Baton Rouge General Emergency Department, 2013-2014.
- Volunteer at Baton Rouge General Burn Unit, 2013.
- Volunteer at Baton Rouge General Birth Center, 2013.
- Our Lady of the Lake College Student Ambassador, 2013-2014.
- Habitat for Humanity, 2013-2014.
- President of Basic Medical Sciences Student Organization, 2018-2019.
- Mentoring UG Honors Students in Theses Development, 2018-2019.
- Peer Mentoring of Matriculating BMS Students, 2018-2019.
- Member of University of South Alabama Continuous Quality Improvement Committee (LCME Standards), 2018-2020.
- Member of University of South Alabama College of Medicine Graduate Executive Committee, 2018-2019.
- Member of University of South Alabama College of Medicine Committee on Diversity and Inclusion, 2019-2020.
- Member of Early Career Working Group, Pulmonary Infection – Tuberculosis Assembly (PI-TB), American Thoracic Society, 2020-2022.
- PINE Organizing Committee, PI-TB Assembly, American Thoracic Society, 2020-2022.
- Interviewer – Osteopathic Medical Student Applicants, Edward Via College of Osteopathic Medicine – Louisiana, 2022-present.
- Ad hoc reviewer for *FASEB J*, 2022-present.