

CURRICULUM VITAE

Nader H. Moniri, Ph.D.
3001 Mercer University Drive
Atlanta, GA 30341
(678)-547-6246
Moniri_nh@mercer.edu

ACADEMIC APPOINTMENTS

2020 – Present	Professor (Tenured), Department of Biomedical Sciences, School of Medicine, Mercer University
2018 – Present	Professor (Tenured), Department of Pharmaceutical Sciences, College of Pharmacy, Mercer University
2014 – Present	Associate Dean for Research, College of Pharmacy, Mercer University
2012 – 2018	Associate Professor (Tenured), Department of Pharmaceutical Sciences, College of Pharmacy, Mercer University
2006 – 2012	Assistant Professor, Department of Pharmaceutical Sciences, College of Pharmacy, Mercer University

EDUCATION & TRAINING

Duke University Medical Center, Durham, North Carolina

Post-Doctoral Fellow, Departments of Cell Biology, Pharmacology and Cancer Biology, 2004-2005
Training in Molecular & Cellular Biology, Pharmacology, Chemical Biology

University of North Carolina – Chapel Hill, Chapel Hill, North Carolina

Ph.D., Pharmaceutical Sciences, concentration in Pharmacology and Medicinal Chemistry, 2004
Division of Medicinal Chemistry and Natural Products (now Chemical Biology and Medicinal Chemistry),
UNC Eshelman School of Pharmacy
Training in Medicinal Chemistry, Pharmacology, Biochemistry, Molecular & Cellular Biology

Georgia State University, Atlanta, Georgia

B.S., Biological Sciences, Minor in Chemistry, 1997

PROFESSIONAL EXPERIENCE

Co-Founder, Channel Therapeutics

2021 – Present

- Co-Founder of a drug-discovery company focused on selective muscarinic M2 receptor acting agents for treatment of a variety of central and peripheral disease states, including Parkinson's disease, urinary and gastrointestinal disorders.

Professor with Tenure / Principal Investigator

Department of Pharmaceutical Sciences, College of Pharmacy

Department of Biomedical Sciences, School of Medicine

Mercer University,

July 2018 – Present

- Research focus on characterization of molecular pharmacology, cell and molecular biology/physiology of G protein-coupled receptors including free-fatty acid receptor-4 and the β 2-adrenergic receptor, as well as drug discovery/medicinal chemistry efforts towards new chemical entities that target them.
- Research activities have been funded by a variety of extramural sources including: NIH/NIDDK, NIH/NHLBI, NIH/NINDS, Private Foundations and Private Industry.
- Teaching in professional and graduate (Ph.D./M.S.) curriculum includes physiology, pathophysiology, pharmacology, and medicinal chemistry in various systems, including: CNS disorders, musculoskeletal disorders, cardiovascular disorders, renal disorders, infectious diseases, endocrine disorders.
- Service activities include College Executive Committee, Curriculum Committee Chair, ACPE Accreditation and Self-Study Steering Committee member, ACPE Accreditation and Self-Study Curriculum (2010-12) and Facilities/Finances (2019-21) Subcommittee Chair, trained ACPE Accreditation Site-Visit Team member, as well as numerous Dean and Provost-appointed leadership positions, as listed below.
- Selected as a fellow for the 2011-2012 cohort of the American Association of Colleges of Pharmacy Academic Leadership Fellowship Program, designed to develop the nation's most promising faculty for roles as future leaders in academia and higher education.

Associate Dean for Research

College of Pharmacy, Mercer University

January 2014 – Present

- Primary research administrator for the College of Pharmacy, responsible for research vision, strategic initiatives, oversight of the College's research infrastructure and management of human and capital assets within the research enterprise.
- Responsible for fostering and growing biomedical/pharmaceutical science, pharmacy practice, and pharmacy administration based-research within the College of Pharmacy, as well as externally with other Departments, Universities, and Stakeholders in order to promote and support research across a variety of disciplines and approaches.
- Responsible for strategic efforts to assist College faculty in design and implementation of research activities and development of strategies to procure extramural research funding.
- Accountable for research and scholarship objectives within the College 5-year Strategic Plan.
- Responsible for administration of all College sponsored research-related programs, events, and activities.
- Primary research liaison representing the College in internal and external research-related activities.
- Responsible for development and implementation of student research programs and industry-sponsored research internships.
- Spearheaded and implemented the Institute for Advanced Medical Research at Mercer University's Center for Clinical Research.
- Member of the College Executive Committee.

Associate Professor with Tenure / Principal Investigator

Department of Pharmaceutical Sciences, College of Pharmacy

Mercer University,

July 2012 – June 2018

Assistant Professor (tenure-track) / Principal Investigator

Department of Pharmaceutical Sciences, College of Pharmacy and Health Sciences

Mercer University,

July 2006 – June 2012

Senior Scientist, Department of Biochemistry and Molecular Pharmacology

Neurogen Corporation, 2005 - 2006

- Cloning and validation of novel pharmacotherapeutic receptor targets.
- Validation and assessment of novel compounds through cell-based and in vitro assays as well as high-throughput screening.

- Member of target discovery management team for CNS and metabolic targets.

Invited Lecturer, University of North Carolina - Chapel Hill, 2005

- Taught second year pharmacology/medicinal chemistry to pharmacy (Pharm.D.) students with focus in medicinal chemistry, mechanisms of action, and clinical pharmacology of drugs affecting the sympathetic nervous system.

Post-doctoral Research, Duke University Medical Center, 2004 - 2005

- Characterization of novel intracellular signaling cascades and pharmacological effects involving the β 2-adrenergic receptor and the effects of reactive oxygen and reactive nitrogen species on β 2 receptor signal transduction.
- Elucidation of biochemical function of the large GTPase dynamin, and its involvement in internalization and signaling of G protein-coupled receptors.
- Investigation of the involvement of dynamin and nitric oxide synthase in host-cell immunological responses leading to endocytosis of uropathogenic E. coli and Human Immunodeficiency Virus.
- Characterization of G protein-coupled receptor signaling cascades in prostate cancer.

Ph.D. Dissertation Research, University of North Carolina - Chapel Hill, 1999-2004

Doctoral Dissertation: Neuropharmacological characterization of phenylaminotetralin analogues as functionally selective histamine H₁ receptor agonists

PEER-REVIEWED PUBLICATIONS

Singh K and Moniri NH. The β 2-adrenergic receptor-reactive oxygen species signaling axis in small airway epithelial cells: agonist and H₂O₂-mediated hyperoxidation of β 2AR and implications for tachyphylaxis to β 2-agonists. *Cell Chemical Biology*, *Submitted*, December, 2022.

Miller SW, **Moniri NH**, Winkles LB, Bowen JP, Thurston, MM. Three Cs" of Academic Literature Authorship: Contributions, Credit, and Conflict. *American Journal of Pharmaceutical Education*, *In Press*, October, 2022.

Rizzo AR and **Moniri NH**. Omadacycline for management of Mycobacterium abscessus infections: A review of its effectiveness, place in therapy, and considerations for use. *BMC Infectious Diseases*. 22(1):874, 1-11, 2022. PMID: 36419143

Karmokar PF and **Moniri NH**. Oncogenic signaling of the Free-Fatty Acid Receptors FFA1 and FFA4 in human breast carcinoma cells. *Biochemical Pharmacology*. 206:115308, 1-10, 2022. PMID: 36309079

Singh K*, Senatorov IS*, Cheshmehkani A, Karmokar PF, **Moniri NH**. The skeletal muscle relaxer cyclobenzaprine is a potent non-competitive antagonist of histamine H₁ receptors. *Journal of Pharmacology and Experimental Therapeutics*. 380(3):202-209, 2022. PMID: 34992159

*denotes equal authorship.

Moniri NH and Farah Q. Short-chain free-fatty acid G-protein coupled receptors in colon cancer. *Biochemical Pharmacology*. 186:114483, 1-7, 2021. PMID: 33631190

Senatorov IS, Cheshmehkani A, Burns RN, Singh, K, **Moniri NH**. Carboxy-terminal phosphoregulation of the long splice isoform of Free-Fatty Acid Receptor-4 mediates β -arrestin recruitment and signaling to ERK1/2. *Molecular Pharmacology*. 97:304-313, 2020. PMID: 32132133

Rambacher KM and **Moniri NH**. Cysteine redox state regulates human β 2-adrenergic receptor binding and function. *Scientific Reports*, 10:2934, 1-15, 2020. PMID: 32076070

Chitre NM, Wood BJ, Ray A, **Moniri NH***, Murnane KS*. Docosahexaenoic acid protects motor function and increases dopamine synthesis in a rat model of Parkinson's disease via mechanisms associated with increased protein kinase activity in the striatum. *Neuropharmacology*. 167:107976, 2020. PMID: 32001239
* denotes co-senior authorship.

Rambacher KM and **Moniri NH**. The β 2-adrenergic receptor-ROS signaling axis: An overlooked component of β 2AR function? *Biochemical Pharmacology*. 171:113690, 1-8, 2020. PMID: 31697929

Chitre N, **Moniri NH**, Murnane KS. Omega-3 Fatty Acids as Druggable Therapeutics for Neurodegenerative Disorders. *CNS & Neurological Disorders - Drug Targets*. 18(10):735-749, 2019. PMID: 31724519

Moniri NH. Reintroduction of quazepam: an update on comparative hypnotic and adverse effects. *International Clinical Psychopharmacology*. 34(6):275-285, 2019. PMID: 31274695

Murnane KS, Guner OF, Bowen JP, Rambacher KM, **Moniri NH**, Murphy TJ, Daphney CM, Oppong-Damoah A, Rice KC. The adrenergic receptor antagonist carvedilol interacts with serotonin 2A receptors both in vitro and in vivo. *Pharmacology Biochemistry and Behavior*. 181:37-45, 2019. PMID: 30998954

Moniri NH, Momary KM, McMahon TJ, Nayee E. Statin-associated Achilles tendon rupture and reproducible bilateral tendinopathy upon repeated exposure. *Mayo Clinic Proceedings*. 93(10):1530-1532, 2018. PMID: 30286837

This article was featured in *Academic Pharmacy Now: The News Magazine of the American Association of Colleges of Pharmacy* [12(1):6-7,2019].

Senatorov IS and **Moniri NH**. The role of free-fatty acid receptor-4 (FFA4) in human cancers and cancer cell lines. *Biochemical Pharmacology*. 150:170-180, 2018. PMID: 29452095

Cheshmehkani A, Senatorov IS, Dhuguru J, Ghoneim O, **Moniri NH**. Free-fatty acid receptor-4 (FFA4) modulates ROS generation and COX-2 expression via the C-terminal β -arrestin phosphosensor in Raw 264.7 macrophages. *Biochemical Pharmacology*. 146:139-150, 2017. PMID: 28943238

Moniri NH. Free-fatty acid receptor-4 (GPR120): cellular and molecular function and its role in metabolic disorders. *Biochemical Pharmacology*. 110-111:1-15, 2016. PMID: 26827942

Cheshmehkani A*, Senatorov IS*, Kandi P, Singh M, Britt A, Hayslett R, **Moniri NH**. Fish oil and flax seed oil supplemented diets increase FFAR4 expression in the rat colon. *Inflammation Research*. 64:809-15, 2015. PMID: 26275932. *denotes equal authorship.

Singh M and **Moniri NH**. Reactive oxygen species as β 2-adrenergic receptor signal transducers. *Journal of Pharmaceutics and Pharmacology*. 2(1): 8-15, 2014.

Burns RN, Singh M, Senatorov IS, **Moniri NH**. Mechanisms of homologous and heterologous phosphorylation of FFA receptor 4 (GPR120): GRK6 and PKC mediate phosphorylation of Thr³⁴⁷, Ser³⁵⁰, and Ser³⁵⁷ in the C-terminal tail. *Biochemical Pharmacology*. 87:650-659, 2014. PMID: 24412271

Ryan GJ, **Moniri NH**, Smiley DD. Clinical effects of once-weekly exenatide for the treatment of type 2 diabetes mellitus. *American Journal of Health-System Pharmacy*. 70(13):1123-1131, 2013. PMID: 23784159

Gleason BL, Siracuse MV, **Moniri NH**, Birnie CR, Okamoto CT, Crouch MA. Evolution of Preprofessional Pharmacy Curricula. *American Journal of Pharmaceutical Education*. 77(5):95; 1-8, 2013. PMID: 23788806

Singh M and **Moniri NH**. Reactive oxygen species are required for β 2-adrenergic receptor- β -arrestin interactions and signaling to ERK1/2. *Biochemical Pharmacology*. 84:661-669, 2012. PMID: 22728070

Burns RN and **Moniri NH**. Agonist- and Hydrogen peroxide- mediated oxidation of the β 2 adrenergic receptor: evidence of receptor S-sulfenation as detected by a modified biotin switch assay. *Journal of Pharmacology and Experimental Therapeutics*. 339(3):914-921, 2011. PMID: 21917560

Wang Z, Humphrey C, Frilot N, Wang G, Nie Z, **Moniri NH**, Daaka Y. Dynamin2- and endothelial nitric oxide synthase-regulated invasion of bladder epithelial cells by uropathogenic Escherichia coli. *Journal of Cell Biology*. 192(1):101-10, 2011. PMID: 21220511

Burns RN and **Moniri NH**. Agonism with the omega-3 fatty acids alpha-linolenic acid and docosahexaenoic acid mediates phosphorylation of both the short and long isoforms of the human GPR120 receptor. *Biochemical and Biophysical Research Communications*. 396:1030-1035, 2010. PMID: 20471368

Bagchi G, Wu J, French J, Kim J, **Moniri NH**, Daaka Y. Androgens transduce the Gas-mediated activation of protein kinase A in prostate cells. *Cancer Research*. 68: 3225-3231, 2008. PMID: 18451148

Moniri NH and Daaka Y. Agonist-stimulated reactive oxygen species formation regulates β 2-adrenergic receptor signal transduction. *Biochemical Pharmacology*. 74: 64-73, 2007. PMID: 17451656

Booth RG and **Moniri NH**. Novel ligands stabilize stereo-selective conformations of the histamine H1 receptor to activate catecholamine synthesis. *Inflammation Research*. 56:S1-2, 2007. PMID: 17806174

Moniri NH and Booth RG. Role of PKA and PKC in Histamine H1 Receptor-Mediated Activation of Catecholamine Neurotransmitter Synthesis. *Neuroscience Letters*. 407:249-253, 2006. PMID: 16978782

Bagchi G, **Moniri NH**, Daaka Y. Androgen Receptor. *AfCS-UCSD Nature Molecule Pages*. 2006. [doi:10.1038/mp.a003790.01]

Guo R, Kasbohm EA, Arora P, Sample CJ, Baban B, Sud N, Sivashanmugam P, **Moniri NH**, Daaka Y. Expression and function of lysophosphatidic acid LPA1 receptor in prostate cancer cells. *Endocrinology*. 147:4883-4892, 2006. PMID: 16809448

Wang G, **Moniri NH**, Ozawa K, Stamler JS, Daaka Y. Nitric oxide regulates endocytosis by S-nitrosylation of dynamin. *Proceedings of the National Academy of Sciences, USA*. 103(5):1295-1300, 2006. PMID: 16432212

Booth RG and **Moniri NH**. Ligand-directed multifunctional signaling of histamine H1 receptors. *Inflammation Research*. 54:S44-45, 2005. PMID: 15928829

Moniri NH, Covington-Strachan DW, Booth RG. Ligand-directed functional heterogeneity of histamine H1 receptors: Novel agonists selectively activate and block H1 mediated phospholipase C and adenylyl cyclase signaling in CHO cells. *Journal of Pharmacology and Experimental Therapeutics*. 311:274-281, 2004. PMID: 15169829

Moniri NH and Booth RG. Functional heterogeneity of histamine H1 receptors. *Inflammation Research*. 53:S71-72, 2004. PMID: 15054625

Booth RG, **Moniri NH**, Bakker RA, Choksi NY, Nix WB, Timmerman H, Leurs R. A novel phenylaminotetralin radioligand reveals a sub-population of histamine H1 receptors. *Journal of Pharmacology and Experimental Therapeutics*. 302:328-336, 2002. PMID: 12065734

BOOK CHAPTERS

Moniri NH. Drugs used to induce/support sedation or anesthesia. *Foye's Principles of Medicinal Chemistry*. Chapter 12 (pp. 423-466). Roche VF, Zito SW, Lemke TL, Williams DA, eds. Lippincott, Williams, & Wilkins, Philadelphia, PA, 8th ed., 2019.

Moniri NH. Sedative-Hypnotics. *Foye's Principles of Medicinal Chemistry*. Chapter 15 (pp. 485-507) Lemke TL and Williams DA, eds. Lippincott, Williams, & Wilkins, Baltimore, MD, 7th ed., 2012.

PUBLISHED PROCEEDINGS

Moniri NH, Senatorov IS, Cheshmehkani A, Karmokar P, Singh K. The skeletal muscle relaxer cyclobenzaprime is a potent non-competitive histamine H1 receptor antagonist. *The FASEB Journal*, 35 (S1), 2021.

Karmokar PF and **Moniri NH.** Diverse Roles of G-Protein-Coupled Receptor 40 (GPR40/FFA1) and GPR120 (FFA4) in the Regulation of Cell Growth and Motile Activities in Renal Cell Carcinoma (RCC). *The FASEB Journal*, 35 (S1), 2021.

Singh K and **Moniri NH.** Differential Modulation of β 2AR Mediated cAMP/PKA/CREB Signaling Cascade in Normal versus Asthmatic Airway Epithelial Cells. *The FASEB Journal*, 35 (S1), 2021.

Rambacher KM and **Moniri NH.** Redox deficient cysteine residues impair β 2-adrenergic receptor function. *The FASEB Journal*, 33(S1):668.3, 2019.

Chitre NM, Wood B, Ray A, **Moniri NH**, Murnane KS. Assessing the neuroprotective effects of docosahexaenoic acid in 6-hydroxydopamine induced Parkinsonism in rats. *The FASEB Journal*, 33(S1):501.10, 2019.

Moniri NH and Sambunaris A. The Institute for Advanced Medical Research at Mercer University: Translational and Clinical Research Opportunities for Students. *Am J Pharm Educ.* 82(5): 25, 2018.

Rambacher KM and **Moniri NH.** Ligand Binding to the β 2-Adrenergic Receptor Is Dependent Upon Its Oxidation State. *The FASEB Journal*, 32(S1):555.14, 2018.

Senatorov IS, Cheshmehkani A, **Moniri NH.** Investigating Phosphorylation Differences in FFA4 Short and Long Isoforms. *The FASEB Journal*, 32(S1):555.30, 2018.

Cheshmehkani A and **Moniri NH.** Effects of phosphodefactive FFA4 receptor C-terminal mutants on COX-2 expression in macrophages. *The FASEB Journal*, 31(S1):992.10, 2018.

Spry R, Hibicke M, Rogers D, Rambacher KM, Hayslett R, **Moniri N**, Murnane K. A new testing paradigm for evaluating motor and non-motor symptoms of 6-hydroxydopamine lesions in rats. *The FASEB Journal*, 31(S1):662.7, 2017.

Murnane KS, Guner O, **Moniri NH**, Bowen P. Ligand-based pharmacophore modeling of 5-HT2A receptor biased agonism. *The FASEB Journal*, 29:768.12, 2015.

Singh M and **Moniri NH.** Role of reactive oxygen species as signal transducers in β 2-adrenergic receptor mediated β -arrestin signaling. *The FASEB Journal*, 28:662.2, 2014.

Singh M and **Moniri NH.** Brighter side of reactive oxygen species (ROS) revealed in β 2 adrenergic receptor- β -arrestin interactions and signaling to ERK1/2. *Molecular Biology of the Cell.* 24(24): 3775, 2013.

Singh M and **Moniri NH**. Reactive Oxygen Species are required for β 2-adrenergic receptor mediated β -arrestin signaling. *The FASEB Journal*, 26:665.6, 2012.

Burns RN and **Moniri NH**. Elucidation of the phosphorylation profiles of the long and short isoforms of the omega-3 fatty acid receptor-1 (GPR120). *The FASEB Journal*, 26:837.7, 2012.

Burns RN and **Moniri NH**. Agonist-dependent oxidation of the β 2 adrenergic receptor: Selective cysteine sulfenic acid formation detected by a modified biotin switch assay. *The FASEB Journal*, 25:629.7, 2011.

Burns RN and **Moniri NH**. Omega-3 fatty acid mediated phosphorylation of the short and long human GPR120 receptor isoforms. *The FASEB Journal*, 24:585.6, 2010.

Moniri NH and Daaka Y. β 2-adrenergic receptor mediated generation of reactive oxygen species is a component required for signal transduction, desensitization, and homodimerization. *The FASEB Journal*, 22:723.6, 2008.

PROFESSIONAL PUBLICATIONS

Metzger NL, O'Brien KA, **Moniri NH**, Peasah SK. Sanford Guide Improves At-Risk Student Performance in an Infectious Disease Series. *Let's think about it!* 19(1):1-9, 2018.

Moniri NH. The Use of a Patient-based Medicinal Chemistry Case in the Nervous System I Course. *Let's think about it!* 11(2):1-3, Spring, 2008.

INVITED LECTURES AND PRESENTATIONS

Singh K and **Moniri NH**. Hydrogen peroxide modifies β 2AR functional response in normal and asthmatic airway epithelial cells. Presented at the Atlanta Research Conference, Atlanta, GA, March 2022.

Karmokar PF and **Moniri NH**. Free Fatty Acid Receptor 1 (FFA1/GPR40) and FFA4 (GPR120) opposingly regulate cell migration and invasion in papillary renal cell carcinoma. Presented at the Atlanta Research Conference, Atlanta, GA, March 2022.

Green AJ, Murnane KS, Rambacher KM, **Moniri NH**. Modulation of dopamine synthesis via FFA4 agonism as possible treatment for Parkinson's Disease. Presented at the Atlanta Research Conference, Atlanta, GA, March 2022.

Green AJ, Murnane KS, Rambacher KM, **Moniri NH**. Free-Fatty Acid Receptor-4 (FFA4) As A Novel Target for Treatment of Parkinson's Disease? Presented at the Southeastern Clinical & Translational Science Alliance Conference, Pine Mountain, GA, March 2022.

Singh K and **Moniri NH**. Role of oxidants in modulating β 2AR signaling in normal and asthmatic airway epithelial cells. Presented at the Southeastern Clinical & Translational Science Alliance Conference, Pine Mountain, GA, March 2022.

Karmokar PF and **Moniri NH**. Diverse Roles of Free Fatty Acid Receptor 1 (FFA1/GPR40) and FFA4 (GPR120) in the Regulation of Cell Migration and Invasion in Papillary Renal Cell Carcinoma (pRCC). Presented at the Southeastern Clinical & Translational Science Alliance Conference, Pine Mountain, GA, March 2022.

Moniri NH. Can a friend become a foe? Regulation of the β 2-adrenergic receptor by reactive oxygen species and the implications for asthma treatment. Presented at Mercer University, 2021.

Moniri NH, Senatorov IS, Cheshmehkani A, Karmokar P, Singh K. The skeletal muscle relaxer cyclobenzapriline is a potent non-competitive histamine H1 receptor antagonist. Presented at Experimental Biology (ASPET) (virtual), April 2021.

Karmokar PF and **Moniri NH**. Diverse Roles of G-Protein-Coupled Receptor 40 (GPR40/FFA1) and GPR120 (FFA4) in the Regulation of Cell Growth and Motile Activities in Renal Cell Carcinoma (RCC). Presented at Experimental Biology (ASPET) (virtual), April 2021.

Singh K and **Moniri NH**. Differential Modulation of β 2AR Mediated cAMP/PKA/CREB Signaling Cascade in Normal versus Asthmatic Airway Epithelial Cells. Presented at Experimental Biology (ASPET) (virtual), April 2021.

Senatorov IS, Cheshmehkani A, Karmokar PF, Singh K, **Moniri NH**. The skeletal muscle relaxer cyclobenzapriline is a potent non-competitive histamine H1 receptor antagonist. Presented at the GA Clinical & Translational Science Alliance Conference (virtual), March 2021.

Karmokar PF and **Moniri NH**. Diverse roles of G-protein-coupled receptor 40 (GPR40/FFA1) and GPR120 (FFA4) in the regulation of cell growth and motile activities in renal cell carcinoma. Presented at the GA Clinical & Translational Science Alliance Conference (virtual), March 2021.

Singh K and **Moniri NH**. Differential modulation of β 2AR mediated cAMP/ PKA/CREB signaling cascade in normal versus asthmatic airway epithelial cells. Presented at the GA Clinical & Translational Science Alliance Conference (virtual), March 2021.

Karmokar PF and **Moniri NH**. Diverse roles of G protein-coupled receptor 40 (GPR40/FFA1) and GPR120 (FFA4) in the regulation of cell growth and motile activities in renal cell carcinoma (RCC). Presented at Georgia Bio Innovation Summit (virtual), Atlanta, GA, 2020.

Singh K and **Moniri NH**. Differential modulation of β 2AR mediated cAMP/PKA/CREB signaling cascades in normal versus asthmatic airway epithelial cells. Presented at Georgia Bio Innovation Summit (virtual), Atlanta, GA, 2020.

Karmokar PF* and **Moniri NH**. G-Protein Coupled Receptor 40 (GPR40/FFA1) promotes cell proliferation in metastatic tumor-derived renal cell carcinoma. Presented at the Mercer University School of Medicine/College of Pharmacy Joint Symposium, Macon, GA, 2020. *Awarded Outstanding Student Presentation Award

Singh K and **Moniri NH**. Differential Beta-2-Adrenergic Receptor signaling in normal versus asthmatic human airway epithelial cells. Presented at the Mercer University School of Medicine/College of Pharmacy Joint Symposium, Macon, GA, 2020.

Moniri NH*. Fatty acids as targets for treatment of Parkinson's Disease? Presented virtually at the Mercer University School of Medicine/College of Pharmacy Joint Symposium, Macon, GA 2020. * indicates keynote lecture.

Karmokar PF and **Moniri NH**. G-Protein Coupled Receptor 40 (GPR40/FFA1) promotes cell proliferation in metastatic tumor-derived renal cell carcinoma. Presented at the GA Clinical & Translational Science Alliance Conference, Pine Mountain, GA, 2020.

Singh K and **Moniri NH**. Differential Beta-2-Adrenergic Receptor signaling in normal versus asthmatic human airway epithelial cells. Presented at the GA Clinical & Translational Science Alliance Conference, Pine Mountain, GA, 2020.

Aboagyewaah AB, Yoon A, Vest FV, Curry K, Blough B, Rice K, Guner O, Bowen JP, Rambacher KM, **Moniri NH**, Murphy TJ, Daphney CM, Gannon BM, Murnane KS. Evaluating the potential of non-psychoactive serotonin 2A receptor agonists for alcohol use disorder. Presented at the GA Clinical & Translational Science Alliance Conference, Pine Mountain, GA, 2020.

Rambacher KM and **Moniri NH**. Redox deficient cysteine residues impair β 2-adrenergic receptor function. Presented at Experimental Biology (ASPET), Orlando, FL, 2019.

Chitre NM, Wood B, Ray A, **Moniri NH**, Murnane KS. Assessing the neuroprotective effects of docosahexaenoic acid in 6-hydroxydopamine induced Parkinsonism in rats. Presented at Experimental Biology (ASPET), Orlando, FL, 2019.

Moniri NH. The omega-3 fatty acid receptor FFA4 modulates ROS generation and inflammatory signals in macrophages. Presented at the Mercer University Health Sciences Symposium, Macon, GA, 2019.

Chitre NM, Wood B, Ray A, **Moniri NH**, Murnane KS. The Neuroprotective Effects of Docosahexaenoic Acid in a 6-Hydroxydopamine Rat Model of Parkinsonism. Presented at the Mercer University Atlanta Research Conference, Atlanta, GA, 2019.

Rambacher KM and **Moniri NH**. Redox capable cysteine residues are necessary for β 2-adrenergic receptor function. Presented at the GA Clinical & Translational Science Alliance Conference, Pine Mountain, GA 2019.

McMahon TJ and **Moniri NH**. Adverse side effects of statin medication on Achilles tendon: A case study. Presented at IMPACT (Physical Therapy Association of Georgia) Annual Meeting, Athens, GA, 2018.

Rambacher KM and **Moniri NH**. β 2-adrenergic receptor function in human airway is mediated by cysteine-S-sulfenation. Presented at the Mercer University Atlanta Research Conference, Atlanta, GA, 2018.

Rambacher KM and **Moniri NH**. Cysteine S-sulfenation mediates canonical β 2-adrenergic receptor function in human airway. Presented at the GA Clinical & Translational Science Alliance Conference, Braselton, GA, 2018.

Senatorov IS and **Moniri NH**. Mechanisms of homologous and heterologous phosphorylation of FFA4 isoforms. Presented at the GA Clinical & Translational Science Alliance Conference, Braselton, GA, 2018.

Chitre N, **Moniri NH**, Murnane KS. Assessing the motor and non-motor symptoms of Parkinson's disease in rats using the 6-hydroxydopamine lesion model. Presented at the GA Clinical & Translational Science Alliance Conference, Braselton, GA, 2018.

Moniri NH and Sambunaris A. The Institute for Advanced Medical Research at Mercer University: Translational and Clinical Research Opportunities for Students. Presented at American Association of Colleges of Pharmacy, Boston, MA, 2018.

Rambacher KM and **Moniri NH**. Ligand Binding to the β 2-Adrenergic Receptor Is Dependent Upon Its Oxidation State. Presented at Experimental Biology (ASPET), San Diego, CA, 2018.

Senatorov IS, Cheshmehkani A, **Moniri NH**. Investigating Phosphorylation Differences in FFA4 Short and Long Isoforms. Presented at Experimental Biology (ASPET), San Diego, CA, 2018.

Nayee E, Momary KM, **Moniri NH**. Statin-associated Achilles tendinopathy. Presented at the American Society of Health-System Pharmacists Mid-Year Meeting, Orlando, FL, 2017.

Rambacher KM and **Moniri NH**. Cysteine-S-sulfenation of the β 2-adrenergic receptor alters canonical signaling. Presented at Georgia Bio Innovation Summit, Atlanta, GA, 2017.

Metzger NL, O'Brien KA, **Moniri NH**, Peasah SK. Impact of the Sanford Guide on Students' Exam Performance in an Infectious Diseases Series. Presented at American Association of Colleges of Pharmacy, Nashville, TN, 2017.

Moniri NH. Free-Fatty Acid Receptors as the Next Generation of Pharmacotherapeutic Targets for T2DM and Obesity. Presented at Georgia Pharmacists Association Annual Conference, Amelia Island, FL, 2017.

Moniri NH. Regulation of free-fatty acid receptor-4: implications for anti-inflammatory signaling. Presented at Mercer University Health Sciences Symposium, Atlanta, GA, 2017.

Cheshmehkani A and **Moniri NH**. Anti-inflammatory effects of FFA4 in macrophages. Presented at Mercer University Health Sciences Symposium, Atlanta, GA, 2017.

Senatorov IS and **Moniri NH**. Phosphoregulation of Free Fatty Acid Receptor-4. Presented at Mercer University Health Sciences Symposium, Atlanta, GA, 2017.

Rambacher KM and **Moniri NH**. The impact of reactive oxygen species induced cysteine S-sulfenation on β 2-adrenergic receptor function. Presented at Mercer University Atlanta Research Conference, Atlanta, GA, 2017.

Cheshmehkani A and **Moniri NH**. Effects of Phosphodeficient FFAR4 C-terminal Mutants on COX-2 Expression in Macrophages. Presented at Mercer University Atlanta Research Conference, Atlanta, GA, 2017.

Senatorov IS and **Moniri NH**. Phosphoregulation of the long splice isoform of Free Fatty Acid Receptor-4. Presented at Mercer University Atlanta Research Conference, Atlanta, GA, 2017.

Moniri NH. Regulation of free-fatty acid receptor-4: implications for anti-inflammatory signaling. Presented at Department of Pharmacology, Emory University School of Medicine, Atlanta, GA, 2017.

Cheshmehkani A and **Moniri NH**. Effects of phosphodeficient FFA4 receptor C-terminal mutants on COX-2 expression in macrophages. Presented at Experimental Biology (ASPET), Chicago, IL, 2017.

Spry R, Hibicke M, Rogers D, Rambacher KM, Hayslett R, **Moniri N**, Murnane K. A new testing paradigm for evaluating motor and non-motor symptoms of 6-hydroxydopamine lesions in rats. Presented at Experimental Biology (ASPET), Chicago, IL, 2017.

Irvin T, Morgan JB, Deck J, Murnane KS, **Moniri NH**, Bowen P, Guner O, Jacobson A, and Rice KC. Synthesis and Characterization of 9-oxophenylmorphans: Potential Biased 5-HT2A Receptor Agonists. Presented at Gordon Research Conference: Heterocyclic Compounds, Newport, RI, 2016.

Irvin T, Morgan JB, Deck J, Murnane KS, **Moniri NH**, Bowen P, Guner O, Jacobson A, and Rice KC. Synthesis and Characterization of 9-oxophenylmorphans: Potential Biased 5-HT2A Receptor Agonists. Presented at Behavior, Biology, and Chemistry: Translational Research in Addiction, San Antonio, TX, 2016.

Murnane KS, Guner O, **Moniri NH**, Bowen P. Ligand-based pharmacophore modeling of 5-HT2A receptor biased agonism. Presented at Experimental Biology (ASPET), Boston, MA, 2015.

Moniri NH. The brighter side of ROS: Uncovering a role for ROS in β 2-adrenergic receptor function. Presented at Mercer University School of Medicine/College of Pharmacy Joint Research Symposium, Macon, GA, 2015.

Cheshmehkani A and **Moniri NH.** Effects of reactive oxygen species on agonist and antagonist binding to the β 2-adrenergic receptor. Presented at GRASP conference, Atlanta, GA 2014.

Singh M and **Moniri NH.** Role of reactive oxygen species as signal transducers in β 2-adrenergic receptor mediated β -arrestin signaling. Presented at Experimental Biology (ASPET), San Diego, CA, 2014.

Burns RN, Singh M, Senatorov IS, **Moniri NH.** Mechanisms of homologous and heterologous phosphorylation of the anti-inflammatory and anti-diabetic Free-Fatty Acid Receptor FFA4 (GPR120). Presented at American Association of Colleges of Pharmacy, Grapevine, TX, 2014.

Moniri NH. A brighter side of ROS: Uncovering a role for ROS in beta-2-adrenergic receptor function. Presented at the Center for Drug Discovery, Northeastern University, Boston, MA, April 23, 2013.

Singh M and **Moniri NH.** Brighter side of reactive oxygen species (ROS) revealed in β 2 adrenergic receptor- β -arrestin interactions and signaling to ERK1/2. Presented at the annual meeting of the American Society for Cell Biology, Abstract #592, New Orleans, LA, 2013.

Burns RN and **Moniri NH.** Elucidation of the phosphorylation profiles of the long and short isoforms of the omega-3 fatty acid receptor-1 (GPR120). Presented at Experimental Biology (ASPET), San Diego, CA, 2012.

Singh M and **Moniri NH.** Reactive Oxygen Species are required for β 2-adrenergic receptor mediated β -arrestin signaling. Presented at Experimental Biology (ASPET), San Diego, CA, 2012.

Moniri NH*, Gleason BL*, Birnie CR, Crouch MA, Okamoto CT, Siracuse MV, McKay AB. The evolving landscape of pre-professional pharmacy curricula. Presented at the annual meeting of the American Association of Colleges of Pharmacy, Orlando, FL, 2012. * denotes presenters.

Moniri NH. Alternative teaching strategies in the classroom: Development of critical thinking skills using case studies. Presented at Mercer University Georgia Baptist College of Nursing Faculty Retreat, January 5, 2012.

Moniri NH. Development of critical thinking skills using case studies. Presented for the Mercer University Council of Deans, September 9, 2011.

Burns RN and **Moniri NH.** Agonist-dependent oxidation of the β 2 adrenergic receptor: Selective cysteine sulfenic acid formation detected by a modified biotin switch assay. Presented at Experimental Biology (ASPET), Washington, DC, 2011.

Moniri NH. Oxidation of G protein-coupled receptors: The role of ROS on β 2 adrenergic receptor signaling. Presented at Mercer University College of Pharmacy and Health Sciences Research Symposium, August 12, 2011.

Moniri NH, Strom, JG, Ashworth LE, Barnett CW, Bartling JW, Klein CM. A continuous improvement process for integrated basic and clinical sciences courses in the PharmD curriculum. Presented at the annual meeting of the American Association of Colleges of Pharmacy, San Antonio, TX, 2011.

Burns RN and **Moniri NH.** Omega-3 fatty acid mediated phosphorylation of the short and long human GPR120 receptor isoforms. Presented at Experimental Biology (ASPET), Anaheim, CA, 2010.

Moniri NH. Regulation of the insulinotropic omega-3 fatty acid receptor GPR120 by phosphorylation. Presented at The Medical Center of Central Georgia – Joint Research Conference, December 9, 2010.

Moniri NH. Regulation of β 2-adrenergic receptor signaling by reactive oxygen species. Invited Seminar. Presented at Georgia State University, Dept. of Biology, December 4, 2009.

Moniri NH and Daaka Y. β 2-adrenergic receptor mediated generation of reactive oxygen species is a component required for signal transduction, desensitization, and homodimerization. Presented at Experimental Biology (ASPET), San Diego, CA, 2008.

Neal RL, Hendy MA, **Moniri NH.** Cloning, expression, and initial functional characterization of the human and rat free-fatty acid receptor GPR120. American Society for Pharmacology and Experimental Therapeutics - SE Region Abstracts. Presented at ASPET-SEPS Region meeting, Augusta, GA, 2007.

Booth RG and **Moniri NH.** Functionally selective ligands for the Histamine H1 GPCR. *Experimental Biology meeting abstracts.* Presented at Experimental Biology, San Diego, CA, 2005.

Moniri NH and Booth RG. Functionally selective histamine H₁ receptor ligands stimulate tyrosine hydroxylase in bovine adrenal chromaffin cells: effects of PKC and PKA inhibition on H1-mediated catecholamine synthesis. *Society for Neuroscience Abstracts*, Vol. 29, presented at Society for Neuroscience Meeting, New Orleans, LA, 2003.

Legere JA, **Moniri NH**, Booth RG. (\pm)-2-Dimethylamino-5-phenyl-1,2,3,4- tetrahydronaphthalene binds to histamine H₁ receptors and selectively modulates cAMP vs. IP signaling pathways. *American Chemical Society Abstracts*, Paper #590220, presented at American Chemical Society Meeting, New Orleans, LA, 2003.

Legere JA, **Moniri NH**, Booth RG. 2-Dimethylamino-5-phenyl-1,2,3,4-tetrahydronaphthalenes: A new class of ligands for histamine H1 and serotonin 5-HT2 type receptors. *American Chemical Society Abstracts*, Paper #43231, presented at American Chemical Society Meeting, New York City, NY, 2003.

Moniri NH, Wyrick SD, Booth RG. Novel ligands selectively activate histamine H1 receptors coupled to IP vs. cAMP signaling pathways to stimulate tyrosine hydroxylase. *Society for Neuroscience Abstracts*, Vol. 28, Program No. 830.13, presented at Society for Neuroscience Meeting, Orlando, FL, 2002.

Ghoneim OM, Covington DW, **Moniri NH**, Booth RG. Novel phenylaminotetralins stimulate IP accumulation and dopamine synthesis in rat striatum. *Society for Neuroscience Abstracts*, Vol. 28, Program No. 249.5, presented at Society for Neuroscience Meeting, Orlando, FL, 2002.

Moniri NH, Wyrick, SD, Booth RG. New rigid diarylaminopropanes are histamine H1 ligands that stimulate brain dopamine synthesis. *Society for Neuroscience Abstracts*, Vol. 27, Program No. 479.20, presented at Society for Neuroscience Meeting, San Diego, CA, 2001.

COMPETITIVE FUNDING

Current:

NIH/NHLBI (2R15HL138603)

07-01-2017 – 08/31/2025

The role of ROS on beta-2-adrenergic receptor function in human airway

Role: Principal Investigator

Impact Scores = 20 (original), 26 (renewal)

\$887,160 Total Costs (\$462,660 original), (\$424,500 renewal)

Completed:

United Soybean Board Soy Health Research Program 02/02/2017 – 04/31/2019
Effects of Soybean Oil on FFAR4 activity in Parkinson's Disease
Role: Principal Investigator
\$10,000 Total Costs

NIH/NINDS (1R03NS095239) 03/01/2016 – 02/28/2019
FFAR4 and nigrostriatal function: A novel target for treatment of PD?
Role: Principal Investigator
Impact Score = 25; Percentile = 7
\$154,220 Total Costs

NIH/NIDDK (1R15DK098730) 03/01/2013 – 02/28/2017
The role of phosphorylation in regulating the antidiabetic effects of O3FAR1.
Role: Principal Investigator
Impact Score = 10
\$409,770 Total Costs

Mercer University Seed Grant 07/01/2012 – 06/30/2013
GPR120 expression and function in the lung.
Role: Principal Investigator
\$4,000 Direct Costs

Mercer University Seed Grant 07/01/2011 – 06/30/2012
The role of ROS on β 2-adrenergic receptor mediated ERK1/2 activation.
Role: Principal Investigator
\$10,000 Direct Costs

Diabetes Action Research and Education Foundation 01/01/2011 – 12/31/2011
Uncovering the molecular mechanisms involved in GPR120-mediated GLP-1 secretion.
Role: Principal Investigator
\$12,000 Total Costs (\$10,800 Direct Costs)

American Foundation for Pharmaceutical Education 08/01/2010 – 07/31/2011
GPR120 intracellular signaling.
Role: Principal Investigator, (Pre-doctoral fellowship awarded to Rebecca L. Burns, PharmD/PhD student)
\$6,000 Direct Costs

Mercer University Seed Grant 07/01/2010 – 06/30/2011
Localization of β 2-Adrenergic receptor oxidation sites
Role: Principal Investigator
\$3,500 Direct Costs

Diabetes Action Research and Education Foundation 01/01/2010 – 12/31/2010
In vivo analysis of the role of omega-3 fatty acids in regulation of GPR120 expression.
Role: Principal Investigator
\$15,000 Total Costs (\$13,500 Direct Costs)

American Foundation for Pharmaceutical Education 08/01/2009 – 07/31/2010
GPR120 intracellular signaling.
Role: Principal Investigator, (Pre-doctoral fellowship awarded to Rebecca L. Burns, PharmD/PhD student)
\$6,000 Direct Costs

Mercer University Seed Grant GPR120-mediated ERK1/2 phosphorylation. Role: Principal Investigator \$3,500 Direct Costs	07/01/2009 – 06/30/2010
American Association of Colleges of Pharmacy, New Investigators Award β 2-receptor mediated ROS generation. Role: Principal Investigator \$10,000 Direct Costs	01/01/2009 – 12/31/2009
Diabetes Action Research and Education Foundation The role of omega-3 fatty acids in regulation of GPR120 expression. Role: Principal Investigator \$15,000 Total Costs (\$13,500 Direct Costs)	01/01/2009 – 12/31/2009
American Foundation for Pharmaceutical Education GPR120 intracellular signaling. Role: Principal Investigator, (Pre-doctoral fellowship awarded to Rebecca L. Burns, PharmD/PhD student) \$6,000 Direct Costs	08/01/2008 – 07/31/2009
Mercer University Seed Grant GPR120 desensitization. Role: Principal Investigator \$4,600 Direct Costs	07/01/2008 – 06/30/2009
Mercer University Biomedical Scholars Training Initiative β 2-receptor mediated ROS generation. Role: Principal Investigator \$5,415 Direct Costs	05/01/2008 – 08/31/2008
Solvay Pharmaceuticals Training Grant GPR120-mediated ERK1/2 signaling. Role: Principal Investigator \$4,600 Direct Costs	05/01/2008 – 08/31/2008
Mercer University Seed Grant GPR120-mediated GLP-1 secretion. Role: Principal Investigator \$3,500 Direct Costs	07/01/2007 – 06/30/2008
Solvay Pharmaceuticals Training Grant GPR120-mediated inositol phosphate formation. Role: Principal Investigator \$4,100 Direct Costs	05/01/2007 – 08/31/2007

TEACHING EXPERIENCE

College of Pharmacy, Mercer University

- **PHA744 – Scientific Writing** (2023 – Present)
 - Ph.D. students ($n = 5-10$)
 - Focus on NIH grant and manuscript writing
- **PHA467 – Endocrine Disorders** (2021 – Present)

- Second year PharmD students ($n = 103-110$)
 - Physiology and pathophysiology of adrenal gland, thyroid gland, parathyroid gland, endocrine pancreas, male and female reproductive systems
 - Pharmacology and medicinal chemistry of drugs used in these systems
- **PHA468 – Infectious Diseases (2022 – Present)**
 - Second year PharmD students ($n = 103-110$)
 - Pathophysiology of select infectious diseases including bacterial, viral, fungal infections
 - Pharmacology and medicinal chemistry of penicillins, cephalosporins, carbapenems, lipoglycopeptides, sulfonamides, fluoroquinolones, tetracyclines, aminoglycosides, macrolides, antifungals, anti-influenzal agents, anti-SARS2-CoV agents/vaccines, anti-HIV agents
- **PHA536 – Nervous System Disorders (2022 – Present)**
 - Third year PharmD students ($n = 103-110$)
 - Medicinal chemistry of sedative/hypnotics, opioids, triptans
- **PHA537 – Gastrointestinal and Musculoskeletal Disorders (2022 – Present)**
 - Third year PharmD students ($n = 103-110$)
 - Medicinal chemistry of glucocorticoids and NSAIDs
- **PHA450/451 - Nervous System Disorders I/II (2006 – 2020)**
 - Second year PharmD students ($n = 120-175$)
 - Pharmacology and medicinal chemistry of adrenergic agents, cholinergic agents, sedative/hypnotic agents (2006 – 2020)
 - Medicinal chemistry of antidepressants, antipsychotics, anti-neurodegenerative agents (2006 – 2018)
- **PHA533 - Musculoskeletal Disorders and Pain (2006 – 2021)**
 - Third year PharmD students ($n = 120-175$)
 - Medicinal chemistry of glucocorticoids, NSAIDs, opioids, and triptans
- **PHA534 - Endocrine Disorders (2011 – 2021)**
 - Third year PharmD students ($n = 120-175$)
 - Physiology and pathophysiology of adrenal gland, thyroid gland, parathyroid gland, endocrine pancreas, male and female reproductive systems
 - Pharmacology and medicinal chemistry of drugs used in these systems
- **PHA554/555 - Infectious Diseases I/II (2007 – 2022)**
 - Third year PharmD students ($n = 120-175$)
 - Pathophysiology of select infectious diseases including bacterial, viral, fungal, parasitic infections
 - Pharmacology and medicinal chemistry of penicillins, cephalosporins, carbapenems, lipoglycopeptides, sulfonamides, fluoroquinolones, tetracyclines, aminoglycosides, macrolides, antifungals, anti-influenzal agents, anti-SARS2-CoV agents/vaccines, anti-HIV agents
- **PHA453 - Cardiovascular and Renal Disorders II (2006 – 2011)**
 - Third year PharmD students ($n = 120-150$)
 - Medicinal chemistry of antihypertensives, antianginals, antilipidemics, antiarrhythmics
- **PHA804 - Methods in Cell and Molecular Biology (2008 – 2016)**
 - Ph.D. students ($n = 4-12$)
 - Use of radioisotopes in biomedical research

- **PHA846 - Current Topics in Pharmaceutical Sciences** (2021, 2018, 2016, 2015)
 - Ph.D. students ($n = 4-12$)
 - Literature based course that focuses on critical analysis of high-impact biomedical and pharmaceutical sciences research publications
- **PA531 - Pharmacotherapy** (2009)
 - P.A. students ($n = 30$)
 - Antibacterial agents

School of Pharmacy, University of North Carolina – Chapel Hill

- **PCY423 - Autonomic, Autocoids, Hormones**
 - PharmD students ($n = 120$)
 - Medicinal chemistry of autonomic nervous system acting drugs

SERVICE AND LEADERSHIP

National and International Service

- American Association of Colleges of Pharmacy, Research and Graduate Affairs Committee (2022-23)
 - Development of Resource Guide and resolutions for Diversity, Equity, and Inclusion related to faculty recruitment and retention
- U.K. Medical Research Council, Invited Grant Reviewer (2021)
- Session Moderator, Georgia Clinical and Translational Science Alliance Conference (2021, 2020, 2019)
- U.K. Biotechnology and Biological Sciences Research Council (BBSRC), Invited Grant Reviewer (2020)
- U.K. Biotechnology and Biological Sciences Research Council (BBSRC), Invited Grant Reviewer (2017)
- Scientific Board of Advisors, *Institute for Advanced Medical Research* (2016 – Present)
- National Institutes of Health, Center for Scientific Review, Cell Biology Special Emphasis Panel Study Section Reviewer (ZRG1 CB-T(81)A) (June 2016)
- Diabetes U.K., Invited Grant Reviewer (2014)
- National Institutes of Health, Center for Scientific Review, Molecular and Integrative Signal Transduction (MIST) Study Section Reviewer, *Ad hoc.* (June 2012; June 2014)
- UNC-Chapel Hill, School of Pharmacy Alumni Mentoring Program (2014 – Present)
- American Association of Colleges of Pharmacy, Invited Grant Reviewer (2010, 2011, 2012, 2013, 2014, 2017)
- U.K. Biotechnology and Biological Sciences Research Council (BBSRC), Invited Grant Reviewer (2012)
- American Association of Colleges of Pharmacy, Council of Faculties Quorum Committee (2012)
- American Association of Colleges of Pharmacy, Rufus A. Lyman Award Committee (2011)

Service to Mercer University

Provost-Appointed University Service

- National Council of University Research Administrators Self-Study Committee (2021-2022)
- Chair, College of Pharmacy Dean Search Committee (2016-2017)
- Strategic Plan Research Working Group (2016 - 2018)
- Research and Scholarship Committee Advisory to the Provost (2016-2017)
- Mercer University Biomedical Scholars (MUBS) Training Program Planning Committee (2007 – 2013)
- Chair, University Honor Committee (2012)

Elected or Other-Appointed University Service

- Institutional Radiation Safety Committee (2006 – 2017)
- Promotion and Tenure Committee, College of Health Professions (2013 – 2015)
- University Graduate Council (2006 – 2012)
- House of Delegates Research Committee (2007- 2010)

Service to College of Pharmacy, Mercer University

- Associate Dean for Research (2014 – Present)
- Executive Committee (2014 – Present)
- ACPE Accreditation and Self-Study Steering Committee (2019 – 2021)
- Chair, ACPE Accreditation and Self-Study Facilities Subcommittee (2019 – 2021)
- College of Pharmacy Promotion and Tenure committee (2020-2022), Chair (2021-2022)
- Chair, Strategic Plan Research Subcommittee (2017 – Present)
- Curricular Advisor Group (P2 and P4), (2020 – Present)
- Chair, Non-Tenure Track Pharmacology faculty search committee (2019-2021)
- Chair, Clinical Pharmacology/Experimental Pharmacotherapeutics Faculty search committee (2017)
- APPE Selection Committee (2014-2017)
- AACP Delegate, 2017
- Chair, Ad hoc committee on P&T Policies and Procedures (2016)
- Faculty Advisor to Phi Delta Chi professional pharmacy fraternity (2006 – 2016)
- Chair, Curriculum Committee, (August 2009 – October 2013), Interim Chair (June – December 2008)
- ACPE Accreditation and Self-Study Steering Committee (2011 – 2013)
- Chair, ACPE Accreditation and Self-Study Curriculum Subcommittee (2011 – 2013)
- ACPE Accreditation and Self-Study Organization and Administration Subcommittee (2007-2008)
- Department of Pharmaceutical Sciences Graduate Student Admissions Committee (2007 – 2010)
- Department of Pharmaceutical Sciences Scholarship Awards Committee (2010 – Present)
- Student Advising (2006 – Present)
- Chair, Pharmacology Faculty search committee (2010 – 2011)
- Chair, Pharm.D./Ph.D. Program Review Committee (2008 – 2009)
- Department of Pharmaceutical Sciences and Pharmacy Practice Search Committees (29 since 2006)

Scholarly Service

- Editorial Advisory Board Member:
 - Biochemical Pharmacology* (2014 - Present)
 - Heliyon* (2019 - Present)
- Editorial Board Member:
 - Heliyon* (2018 - 2019)
 - Journal of Pharmaceutics and Pharmacology* (2013 - Present)
 - Journal of Pharmacology and Clinical Toxicology* (2013 - Present)
 - Journal of Diabetes Research and Clinical Metabolism* (2011- Present)
- Peer Reviewer for Scholarly Journals (*Ad hoc*)
 - Advances in Medical Sciences* (since 2022)
 - Biochimica et Biophysica Acta – Molecular Cell Research* (since 2021)
 - Acta Pharmacologica Sinica* (since 2020)
 - Molecular Metabolism* (since 2020)
 - British Journal of Pharmacology* (since 2019)
 - Medicinal Research Reviews* (since 2019)
 - Cellular and Molecular Life Sciences* (since 2019)
 - EBioMedicine* (since 2018)
 - Heliyon* (since 2018)
 - Biomaterials Science* (since 2017)
 - Prostaglandins, Leukotrienes, and Essential Fatty Acids* (since 2017)
 - Canadian Journal of Physiology and Pharmacology* (since 2016)
 - Cardiovascular Diabetology* (since 2016)
 - Journal of the American Chemical Society* (since 2015)
 - Neuropharmacology* (since 2015)

- Scientific Reports* (since 2015)
- Medicinal Chemistry Communications* (since 2015)
- ChemMedChem* (since 2014)
- Chemical Reviews – ACS* (since 2014)
- Journal of Physiology* (since 2014)
- Currents in Pharmacy Teaching and Learning* (since 2014)
- American Journal of Pharmaceutical Education* (since 2013)
- Neuroscience Letters* (since 2013)
- Expert Opinion on Therapeutic Patents* (since 2013)
- Bioorganic and Medicinal Chemistry Letters* (since 2013)
- Pharmacological Research* (since 2012)
- European Journal of Medicinal Chemistry* (since 2010)
- Journal of Medicinal Chemistry* (since 2009)
- Journal of Pharmacology and Experimental Therapeutics* (since 2007)
- Drug Design, Development, and Therapy* (since 2007)
- Biochemical Pharmacology* (since 2006)
- Bioorganic and Medicinal Chemistry* (since 2006)
- Peer Reviewer for *Advances in Pharmacology* (2013)
- Peer Reviewer for *Remington: The Science and Practice of Pharmacy*, 22nd edition (2012)

HONORS

- 2022, Elected Graduation Hooder by Class of 2021, Mercer University College of Pharmacy
- 2021, Elected Graduation Hooder by Class of 2021, Mercer University College of Pharmacy
- 2020, Award for Excellence in Research, College of Pharmacy, Mercer University
- 2020, Elected Graduation Hooder by Class of 2020, Mercer University College of Pharmacy
- 2019, Elected Graduation Hooder by Class of 2019, Mercer University College of Pharmacy
- 2018, Elected Graduation Hooder by Class of 2018, Mercer University College of Pharmacy
- 2017, Elected Graduation Hooder by Class of 2017, Mercer University College of Pharmacy
- 2017, Inductee, Phi Kappa Phi Honor Society
- 2016, Distinguished Educator Award, College of Pharmacy, Mercer University
- 2016, Award for Excellence in Service, College of Pharmacy, Mercer University
- 2016, Elected Graduation Hooder by Class of 2016, Mercer University College of Pharmacy
- 2015, Elected Graduation Hooder by Class of 2015, Mercer University College of Pharmacy
- 2014, Award for Excellence in Research, College of Pharmacy, Mercer University
- 2014, Inductee, Rho Chi Pharmacy Honor Society
- 2014, Elected Graduation Hooder by Class of 2014, Mercer University College of Pharmacy
- 2013, Elected Graduation Hooder by Class of 2013, Mercer University College of Pharmacy
- 2012, Teacher of the Year Award, 2011-2012, Rho Chi Pharmacy Honor Society, Mercer University
- 2011-2012, Fellow, American Association of Colleges of Pharmacy, Academic Leadership Fellowship Program
- 2011, Elected Graduation Hooder by Class of 2011, Mercer University College of Pharmacy and Health Sciences
- 2010, Teacher of the Year Award, 2009-2010, Rho Chi Pharmacy Honor Society, Mercer University
- 2010, Elected Graduation Hooder by Class of 2010, Mercer University College of Pharmacy and Health Sciences
- 2009, Elected Graduation Hooder by Class of 2009, Mercer University College of Pharmacy and Health Sciences
- 2008, Teacher of the Year Award, 2007-2008, Rho Chi Pharmacy Honor Society, Mercer University
- 2008, Elected Graduation Marshall by Class of 2008, Mercer University College of Pharmacy and Health Sciences

- 2007, New Professor Recognition Award, 2006-2007, Rho Chi Pharmacy Honor Society, Mercer University
- 2005, Invited Lecturer, School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC

PATENTS

U.S. Patent 63/068,135: “Cathinone derivatives, pharmaceutical formulations, and methods.”, August 20, 2020.

STUDENT TRAINEES

Graduate Trainees:

- Rebecca N. Burns, Pharm.D./Ph.D., 2012
- Monalisa Singh, M.D., Ph.D., 2014
- Ameneh Cheshmehkani, Ph.D., 2018
- Ilya S. Senatorov, Pharm.D./Ph.D., 2019
- Kalyn M. Rambacher, Ph.D., 2019
- Kirti Singh, Ph.D. student, expected 2023
- Priyanka Karmokar, Ph.D. student, expected 2023
- Andrea Green, Pharm.D./Ph.D. student, expected 2024
- Razan Teyani, Ph.D. student, expected 2026
- Alexander Rogier, Ph.D. student (co-advisor), expected 2027

Current Position:

Medical Lead, UCB Pharma
 Director of Medical Affairs, Imedex
 Adjunct Faculty, UT-Chattanooga
 Post-doctoral fellow, NIH/NCI
 Senior Scientist, Pfizer

Ph.D. Advisory Committees:

- Praveen Kandi – Ph.D., 2010 – 2013
- Amna Ali - Ph.D., 2008 – 2014
- Delaram Moshkelani – Pharm.D/Ph.D., 2007 – 2014
- Colby Shemesh – Ph.D., 2013 – 2015
- Martha Graham – Ph.D., 2013 – 2017
- Meghan Hibicke – Ph.D., 2013 – 2017
- Earnest Taylor – Ph.D., 2013 – 2017
- Lesly Anne Samedy, Pharm.D./Ph.D., (co-advisor), 2012 – 2018
- Blair Curless – Pharm.D./Ph.D., 2010 – 2018
- Neha Chitre – Ph.D., 2018 – 2021
- Yiming Chem – Ph.D., 2019 –
- Jessica Armstrong – Ph.D., 2019 –
- Tanishka Saraf – Ph.D., 2020 –

Undergraduate/Professional Trainees:

- Mary Hendy, Pharm.D., Solvay Pharmaceuticals Sponsored Research Assistant, Summer, 2007
- Emilianne McCraine, B.S., Mercer Undergraduate Biomedical Scholars Research Program, Summer 2008
- M. Scott Kilpinen, Pharm.D., Research Assistant, Spring 2009
- Victoria Robinson, Pharm.D., Solvay Pharmaceuticals Sponsored Research Assistant, Summer, 2008
- Victoria Robinson, Pharm.D., Research Assistant, 2008-2009
- April Britt, Pharm.D., Research Assistant, Fall-Spring 2011
- Verina Todorova, Research Assistant, 2018-2019
- Connor Lockridge, Pharm.D., Research Assistant, 2019-2020

High School Trainees:

- Tanvi Sarma, High School Summer Research Assistant, Summer 2021
- Katherine Dugan, High School Summer Research Assistant, Summer 2007
- Abigail Smith, High School Research Assistant, Winter 2017

PROFESSIONAL AFFILIATIONS

- Member, American Society for Pharmacology and Experimental Therapeutics
- Member, American Association of Colleges of Pharmacy

CITIZENSHIP

- U.S.A, Naturalized