

**Blake R. Rushing**

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Home: 534 Courtland Ct  
Kannapolis, NC 28081

Work: University of North Carolina-Chapel Hill  
Nutrition Research Institute  
Department of Nutrition  
500 Laureate Way  
Kannapolis, NC 28081

**Education**

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2020-Present Assistant Professor  
University of North Carolina-Chapel Hill  
Department of Nutrition

2019-2020 Postdoctoral Research Associate  
University of North Carolina-Chapel Hill  
Department of Nutrition

2018-2019 Postdoctoral Scholar  
East Carolina University  
Department of Microbiology & Immunology

2013-2018 Doctor of Philosophy  
East Carolina University  
Major: Pharmacology and Toxicology  
Dissertation: Prevention of aflatoxin B1-mediated genotoxicity through adduction to amino acids in a novel food treatment method.

2009-2013 Bachelor of Science with honors  
*summa cum laude*  
Catawba College, Salisbury, NC  
Major: Chemistry; Minor: Biology  
Graduated with honors

**Research Interests Keywords**

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Drug discovery, cancer prevention/treatment, nutrition/food safety, mycotoxins, carcinogenesis, drug development, protein-ligand interactions, pharmaco/toxicodynamics, mass spectrometry, metabolomics, *in vitro* culturing/drug screening, complement immunity.

**Academic and Professional Experience**

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8/19-Present **Postdoctoral Scholar, UNC-Chapel Hill, Department of Nutrition, Kannapolis, NC**

- Mentor: Dr. Susan Sumner, Professor of Nutrition
- Currently participating in multiple collaborative metabolomic studies investigating the role of metabolism/nutrition in human health/disease and therapeutic development (see "Ongoing Projects" for more details).

7/18-7/19

**Postdoctoral Scholar, East Carolina University, Department of Microbiology & Immunology, Greenville, NC**

- Mentor: Dr. Brandon Garcia, Assistant Professor in Microbiology & Immunology
- Led a project to develop a novel, small molecule inhibitor of C1r – one of the initial proteins in the classical pathway of the complement immune system.
- Used a fragment-based drug discovery approach to triage thousands of potentially bioactive small molecule compounds. Screening methods included: surface plasmon resonance (SPR), X-ray crystallography, complement-based ELISA assays, and purified enzyme activity/kinetic assays.
- Also gained experience in using bacterial expression vectors for protein production and purification.
- Currently preparing a first-author manuscript for publication.
- Mentor contact info: garciabr18@ecu.edu, 252-744-3125

4/18-7/18

**Postdoctoral Scholar, East Carolina University, Department of Microbiology & Immunology, Greenville, NC**

- Mentor: Dr. Isabelle Lemasson, Associate Professor in Microbiology & Immunology
- Worked in this lab temporarily until Dr. Brandon Garcia arrived into the department in July.
- Focused on identifying secreted proteins from Human T-cell Leukemia Virus type 1 (HTLV-1) infected lymphocyte cell lines using LC-MS based proteomics
- Worked independently in developing new methods for the lab to extract and identify secreted cellular factors. Was responsible for culturing and collecting samples from multiple T-cell lines.
- Mentor contact info: lemassoni@ecu.edu, (252) 744-2706

8/13-4/18

**Graduate Research Associate, East Carolina University, Department of Pharmacology & Toxicology, Greenville, NC.**

- Mentor: Dr. Mustafa Selim, Full professor in Pharmacology & Toxicology.
- Used mass spectrometry and *in vitro* hepatocyte culture to investigate methods to detoxify aflatoxin B1 (AFB1)-contaminated foods and prevent initiation of hepatocellular carcinoma (Ph. D. dissertation project). Also worked on side projects involving volatile organic compound analysis in wastewater.
- Gained experience in using organic chemistry methods to modify the chemical structure of bioactive toxins and measuring differences in genotoxicities/toxicodynamics.
- Published four first-author research articles, one co-author research article, and one review article (see “publications” section).
- Also lead/independently worked on collaborative projects in the ECU mass spectrometry core facility under Dr. Kimberly Kew and in the lab of Dr. Selim utilizing various mass spectrometric techniques (LC-MS/MS, nanoLC-TripleTOF, MALDI-MS, GC-MS, LC-TOF) to measure a myriad of biological analytes in many different biological/environmental matrices. Descriptions of specific collaborations can be found below in the “Collaborative Project” section.
- Mentor contact info: selimm@ecu.edu, (252) 737-1933

8/12-12/12

**Writing Center Tutor, Catawba College, Salisbury, NC.**

- Employed by Catawba College
- Counseled fellow students on writing techniques by addressing organizational, transitional, and grammatical techniques.
- Assisted students in developing professional writing habits at all levels of writing.
- Employer contact info: (704) 637-4111

- 5/12-7/12 **Intern, Summer Biomedical Research Program, East Carolina University, Department of Pharmacology & Toxicology, Greenville, NC.**
- Mentor: Dr. Jamie DeWitt, Associate Professor in Pharmacology & Toxicology.
  - Tested immunotoxic effects of a novel perfluorinated compound (“GenX”).
  - Published a first-author manuscript titled “Evaluation of the immunomodulatory effects of 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-propanoate in C57BL/6 mice”.
  - Mentor contact info: dewittj@ecu.edu, (252) 744-2474
- 5/11-7/11 **Intern, Counterterrorism and Forensic Science Research Unit, Federal Bureau of Investigation, Quantico, VA.**
- Mentor: Dr. Christopher Tipple and Brian Eckenrode.
  - Used GC-MS to evaluate components of a canine-scent training aid for detected cadavers.
  - Used GC-MS to determine volatile chemical profile of soil samples in close proximity to cadavers.
  - Became a co-author in a published manuscript titled “Comprehensive characterization of commercially available canine training aids”.
  - Mentor contact info: christopher.tipple@ic.fbi.gov, (703) 216-1563, (703) 632 4650
- 8/10-12/11 **Residence Assistant, Catawba College, Salisbury, NC.**
- Employed by Catawba College
  - Developed and maintained social community between residents of Catawba College of various ages for three semesters.
  - Upheld college rules and regulations to ensure safety among fellow students.
  - Acted a resource of information and conflict resolution to facilitate a smoother transition into campus living for residents.
  - Employer contact info: (704) 637-4382
- 8/10-5/13 **Staff scientist, Catawba Analytical Research Laboratory, Catawba College, Salisbury, NC.**
- Mentor: Dr. Mark Sabo, Full Professor in Chemistry.
  - Employed various analytical techniques (primarily liquid chromatography) to analyze commercial products for various local companies.
  - Mentor contact info: saboms@tiffin.edu, (419) 448-5114

## **Publications**

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1. **Rushing BR**, Rohlik D, Roy S, Skaff DA, Garcia, BL. Targeting the Initiator Protease of the Classical Pathway of Complement Using Fragment-Based Drug Discovery. 2020. *Molecules*. 25(17): 4016.
2. Polli JR, **Rushing BR**, Lish L, Lewis L, Selim MI, Pan X. 2020. Quantitative analysis of PAH compounds in DWH crude oil and their effects on *Caenorhabditis elegans* germ cell apoptosis, associated with CYP450s upregulation. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2020.140639> Online ahead of print.
3. Mamillapalli S, Smith-Joyner A, Forbes L, McIntyre K, Poppenfuse S, **Rushing B**, Strom C, Danell A, May L, Kuehn D, Kew K, Ravisankar S. 2020. Screening for Opioid and Stimulant Exposure in Utero via Targeted and Untargeted Metabolomics Analysis of Umbilical Cords. *Ther Drug Monit*. doi: 10.1097/FTD.0000000000000753. Online ahead of print.

4. Rushing AW, **Rushing BR**, Hoang K, Sanders SV, Peloponese JM, Polakowski N, Lemasson I. 2019. HTLV-1 basic leucine zipper factor protects cells from oxidative stress by upregulating expression of Heme Oxygenase I. *PLoS Pathogens*. 15(6). e1007922
5. **Rushing BR**, Selim MI. 2018. Aflatoxin B1: A review on metabolism, toxicity, occurrence in food, occupational exposure, and detoxification methods. *Food and Chemical Toxicology*. 124. 81-100.
6. **Rushing BR**, Selim MI. 2018. Adduction to arginine detoxifies aflatoxin B1 by eliminating genotoxicity and altering toxicokinetic properties. *Oncotarget*. 9(4): 4559-4570.
7. **Rushing BR**, Selim MI. 2017. Structure and oxidation of pyrrole adducts formed between aflatoxin B2a and biological amines. *Chem Res Toxicol*. 30(6): 1275-1285.
8. Starr JM, **Rushing BR**, Selim MI. 2017. Solvent-dependent transformation of aflatoxin B1 in soil. *Mycotoxin Res*. 33(3): 197-205.
9. **Rushing BR**, Qing H, Franklin JN, McMahan R, Dagnino S, Higgins CP, Strynar MJ, DeWitt JC. 2016. Evaluation of the immunomodulatory effects of 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate in C57BL/6 mice. *Tox Sci*. 156(1): 179-189.
10. **Rushing BR**, Selim MI. 2016. Effect of dietary acids on the formation of aflatoxin B2a as a means to detoxify aflatoxin B1. *Food Addit Contam Part A*. 33(9): 1456-1467.
11. **Rushing B**, Wooten A, Shawky M, Selim MI. 2016. Comparison of LC–MS and GC–MS for the Analysis of Pharmaceuticals and Personal Care Products in Surface Water and Treated Wastewaters. *Current Trends in Mass Spectrometry, a supplement to LCGC North Am., LCGC Europe, and Spectroscopy*. 14(3): 8-14.
12. Tipple CA, Caldwell PT, Kile BM, Beussman DJ, **Rushing B**, Natalie MJ, Whitchurch CJ, Grime M, Stockham, Eckenrode BA. 2014. Comprehensive characterization of commercially available canine training aids. *Forensic Sci Int*. 242: 242-254.

## **Presentations**

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1. **Rushing BR**, McRitchie S, Li Y, Qian Y, Sumner S, Loeser R. *Untargeted Metabolomics to Investigate the Role of the Microbiome in Osteoarthritis* at the Metabolomics Association of North America (MANA) annual meeting (2020).
2. **Rushing BR**, Rohlik D, Garcia BL. *Fragment based discovery of novel small molecules which bind and inhibit C1r* at the 12th International Conference on Complement Therapeutics in Rhodes, Greece (2019).
3. Ryan Garrigues, Charles Booth, Denise Rohlik, **Blake Rushing**, and Brandon Garcia. *Structure-Function Relationships of Borrelial Classical Pathway-specific Complement Inhibitors* at the 12th International Conference on Complement Therapeutics in Rhodes, Greece (2019).
4. **Rushing BR**, Rohlik D, Garcia BL. *Small molecule screening reveals novel inhibitors of the classical pathway of the complement system* at Research and Creative Achievement Week at East Carolina University in Greenville, NC (2019).

5. **Rushing BR**, Garcia BL. *Keeping the brain classy with complement* at the 3-minute research presentation for the postdoctoral scholar association's "Meet and Greet" with ECU's Vice Chancellor in Greenville, NC (2019).
6. **Rushing BR**, Rohlik D, Garrigues RJ, Garcia BL. *Development of small molecule inhibitors of the classical pathway of complement* at the East Carolina Chapter of the Society for Neuroscience annual meeting in Greenville, NC (2018).
7. Strom CJ, Kew KA, **Rushing BR**, May LE, Isler C, Newton E. *Maternal aerobic exercise and DHA levels during pregnancy influences infant heart outcomes* at the American College of Sports Medicine annual meeting in Minneapolis, MN (2018).
8. **Rushing BR**, Selim MI. *Proteomic and metabolomic approaches to evaluating the safety of a novel detoxification product of aflatoxin B<sub>1</sub>*. At the North Carolina Society of Toxicology (NCSOT) Fall meeting at the National Institute of Environmental Health Sciences (NIEHS) in Durham, NC (2017).
9. Forbes LA, Mamillapalli S, **Rushing BR**, Smith-Joyner AM, Strom CJ, Kuehn D, Kew K, Ravisankar S. *Quantitative Method for Drugs of Abuse in Umbilical Cords using Liquid Chromatography/Mass Spectrometry* at Mayo Clinic (2017).
10. **Rushing BR**, Selim MI. *Using Proteomics to Investigate Protection Against Aflatoxicosis in Human Hepatocytes* at the Triangle Area Mass Spectrometry meeting in Durham, NC (2017).
11. **Rushing BR**, Selim MI. *Protective toxicokinetic and toxicodynamic changes associated with aflatoxin B<sub>1</sub> detoxification* at the American Chemical Society annual meeting in Washington D.C. (2017).
12. **Rushing BR**, Wooten AR, Selim MI. *Preliminary investigation of seasonal changes in pesticides and PPCPs in surface water in eastern North Carolina* at the American Chemical Society annual meeting in Washington D.C. (2017).
13. Pan X, Poll J, **Rushing BR**, Selim MI, Zhang B. *PAH compounds identified in crude oil utilizing GCMS induce germ cell apoptosis in *Caenorhabditis elegans** at the American Chemical Society annual meeting in Washington D.C. (2017).
14. **Rushing BR**, Selim MI. *Development of a novel treatment method to reduce the global burden of aflatoxin B<sub>1</sub>* at the National Environmental Health Association annual meeting in Grand Rapids, MI (2017).
15. **Rushing BR**, Selim MI. *Aflatoxin B<sub>1</sub> Reacts With Dietary Amines To Form A Novel Pyrrole Adduct With Reduced Genotoxicity* at the Society of Toxicology annual meeting in Baltimore, MD (2017).
16. **Rushing BR**, Selim MI. *Chemical modifications made by dietary compounds prevent genotoxic actions of aflatoxin B<sub>1</sub>* at Research and Creative Achievement Week at East Carolina University in Greenville, NC (2017).
17. **Rushing BR**, Selim MI. *Development of a novel treatment method to reduce the global burden of aflatoxin B<sub>1</sub>* at the National Environmental Health Association annual meeting in Grand Rapids, MI (2017).
18. **Rushing BR**, Selim MI. *Identification of a novel aflatoxin-amino acid adduct and its potential as a detoxification product using high resolution and tandem mass spectrometry* at the Triangle Area Mass Spectrometry (TAMS) meeting in Durham, NC (2017).

19. **Rushing BR**, Selim MI. *Safer food through chemistry* at East Carolina University's 3-minute thesis competition in Greenville, NC (2016).
20. **Rushing BR**, Selim MI. *Protecting against aflatoxin B1 mutagenicity using dietary compounds* at the North Carolina Society of Toxicology (NCSOT) Fall meeting at the National Institute of Environmental Health Sciences (NIEHS) in Durham, NC (2016).
21. **Rushing BR**, Selim MI. *Structural Characterization and Mutagenicity of the Aflatoxin B2a-Amino Acid Adduct as a Potential Detoxification Product* at Research and Creative Achievement Week at East Carolina University in Greenville, NC (2016).
22. **Rushing BR**, Selim MI. *Structural Characterization and Mutagenicity of the Aflatoxin B2a-Amino Acid Adduct as a Potential Detoxification Product* at the American Society of Mass Spectrometry annual meeting in San Antonio, TX (2016).
23. **Rushing BR**, Wooten AR, Shawky MB, Selim MI. *Comparison of LC–MS and GC–MS Analysis of Pharmaceuticals and Personal Care Products in Surface Water and Treated Wastewaters* at the American Society of Mass Spectrometry annual meeting in San Antonio, TX (2016).
24. **Rushing BR**, Selim MI. *The Role and Mechanism of Dietary Proteins in the Detoxification of Aflatoxin B<sub>1</sub>, a Potent Hepatocarcinogen and Common Food Contaminant* at Research and Creative Achievement Week at East Carolina University in Greenville, NC (2015)
25. **Rushing BR**, Selim MI. *Emerging New Contaminants and their Metabolites in Surface and Wastewaters in Eastern North Carolina* at the Pittcon annual meeting in New Orleans, LA (2015).
26. **Rushing BR**, DeWitt, JC. *Immunotoxic effects of undecafluoro-2-methyl-3-oxahexanoic acid in mouse models*. At the American Chemical Society annual meeting in New Orleans, LA (2013).
27. **Rushing BR**, Miderski CA. *Effects of Oxide Layer Thickness on Wavelengths Reflected from Anodized Niobium Using AFM* at Catawba College's Interdisciplinary Research Symposium in Salisbury, NC (2012).
28. **Rushing BR**, DeWitt, JC. *Immunotoxic Effects of Undecafluoro-2-methyl-2-oxahexanoic Acid in Mouse Models* at the Brody School of Medicine at East Carolina University's Summer Biomedical Research Program (SBRP) poster session in Greenville, NC (2012).

## Webinars

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**Rushing BR**, Selim MI. *Comparison of LC–MS and GC–MS Analysis of Pharmaceuticals and Personal Care Products in Surface Water and Treated Wastewaters* through LCGC (2015).

## Awards and Honors

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- **Postdoctoral Awards**
  - Travel Award - 12th International Conference on Complement Therapeutics in Rhodes, Greece, 2019
  - Best postdoctoral poster presentation award - 20<sup>th</sup> Annual Neuroscience Symposium of the East Carolina Chapter of the Society for Neuroscience, 2018

- **Graduate Awards**

- 3rd place - NCSOT Poster Competition Award, 2017
- ACS Environmental Chemistry Division Certificate of Merit, 2017
- Association of Environmental Health Academic Programs (AEHAP) Student Research Competition Award, 2017
- SOT's Frank C. Lu student award (Food Safety Specialty Section), 2017
- 1st place - oral presentation competition at Research and Creative Achievement Week (ECU), 2016
- Finalist for 3-minute thesis competition (ECU), 2016
- 1st place - NCSOT Graduate Student Platform Presentation Competition, 2016
- Graduate and Professional Student Senate (GPSS) travel award, 2015-2016
- Supplemental Scholarship of the Foundation for Toxicology and Agromedicine, 2014

- **Undergraduate Awards, Memberships, and Positions**

- Whitener Award Recipient, 2013
- The Chemistry Prize, 2012
- Gamma Sigma Epsilon Chapter Vice President, 2012-2013
- American Chemical Society Chapter President, 2012-2013
- Alpha Chi Member, 2011-2013
- Junior Marshall, 2011-2012
- American Chemical Society Treasurer, 2010-2012
- President's List, 2009-2013
- Dean's List, 2009-2013
- Catawba College Honors Program Participant, 2009-2013
- First Family Scholarship Recipient, 2009-2013

## **Grant Writing Experience**

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### **Funded:**

**Cary 7000 UMS Research Grant**

02/2017-02/2018

Principal Investigator: Dr. Mustafa Selim

Role: Co-I and Primary Grant Author.

Title: Analysis of Mycotoxin Coatings on Foods Using Cary 7000 UMS

Agency: Agilent Technologies.

Awarded Amount: \$60,000

**Brody Brothers Endowment Fund**

12/2016-12/2017

Principal Investigator: Dr. Mustafa Selim

Role: Co-I and Primary Grant Author

Title: Development of a Novel Treatment Method to Detoxify Foods Contaminated with Aflatoxin B1

Agency: East Carolina University

Awarded Amount: \$38,600

### **Not Funded:**

**The NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00)**

12/20-12/25

Role: PI

Title: A multi-omic approach to determine mechanisms of nutrient-mediated chemosensitization and reversal of drug resistance in triple negative breast cancer

Agency: NCI

Requested Amount: \$1,002,939

<p><b>Vicky Amidon Innovation Grant in Lung Cancer Research</b>  Role: PI  Title: Overcoming metabolic changes during cisplatin resistance in smokers and never-smokers using docosahexaenoic acid (DHA).  Agency: Lung Cancer Initiative of North Carolina  Requested Amount: \$29,886</p>	01/20-01/21
<p><b>UNC NORC Pilot &amp; Feasibility Program</b>  Role: PI  Title: Genetic and metabolic underpinnings of responders and non-responders to docosahexaenoic acid anticancer treatment.  Agency: UNC-Chapel Hill</p>	04/20-04/21
<p><b>BSOM Dean's Non-Recurring Funds</b>  Principal Investigator: Dr. Mustafa Selim  Role: Co-I and Primary Grant Author  Title: Upgrade of HPLC-TOF for metabolomics analysis  Agency: East Carolina University  Requested Amount: \$90,077</p>	12/2017-12/2018
<p><b>BSOM Dean's Non-Recurring Funds</b>  Principal Investigator: Dr. Mustafa Selim  Role: Co-I and Primary Grant Author  Title: Advanced Research Techniques and Resources  Agency: East Carolina University  Requested Amount: \$12,000</p>	12/2017-12/2018

### **Professional Society Memberships**

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- Triangle Area Mass Spectrometry (TAMS) Discussion Group, 2015-2019
- American Chemical Society, 2017-2018
- National Environmental Health Association, 2017-2018
- Society of Toxicology, 2017-2018
- North Carolina Society of Toxicology, 2016-2018
- American Society of Mass Spectrometry, 2016-2017
- American Association for Cancer Research, 2020
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### **Teaching Experience**

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- Lecturer in Principles of Toxicology (PHAR 7680)
  - "Toxicology of solvents and vapors" at East Carolina University, 2017.
- Lecturer in Pharmacology and Pharmacotherapeutics (PADP 6500)
  - "Pharmacology of anticoagulants and hematopoietic drugs" at East Carolina University, 2016-2018.
- Lecturer in Physiological Proteogenomics (PHLY 7704)
  - "Applications of mass spectrometry in biomedical science" and "Applications of liquid and gas chromatography in biomedical sciences" at East Carolina University, 2014-2016.



- Lecturer in Advanced Research Techniques (PHAR 7670)
  - “Principles of chromatography and mass spectrometry” at East Carolina University, 2014-2016.
- Lecturer in Cytometric Techniques (MCBI 7430)
  - “Analytical sample preparation techniques for analysis of biological molecules” at East Carolina University, 2014.
- Tutor for Biochemistry I (BIOC 7301)
  - Covered topics such as protein composition and structure, carbohydrates and glucoconjugates, cellular transport, glycolysis/TCA cycle/oxidative phosphorylation, enzyme kinetics, gluconeogenesis, and lipid metabolism. 2015-2016
- Small group leader for Pharmacology and Pharmacotherapeutics (PADP 6500)
  - Led several discussion-based exercises for a small group of 9-12 students in the physician’s assistant program. Students were given a case study in advance detailing patients who exhibited certain symptoms and were challenged to diagnose and prescribe pharmacological agents to these patients. 2016

## **Mentoring**

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- Yunzhi Qian, Graduate Student under Dr. Susan Sumner (PI), Summer 2020-Present.
- Madison Schroder, Research Technician under Dr. Susan Sumner (PI), Summer 2020-Present.
- Justin Chandler, Research Technician under Dr. Susan Sumner (PI), Fall 2019-Present.
- Herman Freeman, Research Technician under Dr. Susan Sumner (PI), Fall 2019-Present.
- Denise Rohlik, Graduate Student under Dr. Brandon Garcia (PI), Fall 2018-Summer 2019.
- Charles Booth, Graduate Student under Dr. Brandon Garcia (PI), Fall 2018-Summer 2019.
- Hunter Dail, High School Student under Dr. Mustafa Selim (PI), Fall 2017-Spring 2018.
- Denise Ramirez, undergraduate researcher under Dr. Linda May (PI), Summer 2017.
- Cody Strom, Graduate Student under Dr. Linda May (PI), Summer 2017-Spring 2018.
- Swathi Mamillapalli, Graduate Student under Dr. Allison Dannell (PI), Summer 2017-Spring 2018.
- Annalisa Smith-Joyner, Graduate Student under Dr. Kimberly Kew (PI), Summer 2017-Spring 2018.
- Vidya Venkataganesan, High School Student under Dr. Mustafa Selim (PI), Fall 2016.
- Marcus Shawky, High School Student under Dr. Mustafa Selim (PI), Fall 2014-Spring 2016.
- Ahmed Aldhafiri, Graduate Student under Dr. Ken Soderstrom (PI), Fall 2014-Spring 2018.
- Yasir Mohammed, Graduate Student under Dr. Mustafa Selim (PI), Spring 2014-Spring 2018.

## **Additional Service and Outreach**

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- Graduate Student Assistant for the Summer Biomedical Research Program (SBRP), 2014-2017.
- Brody Graduate Association (BGA) Department of Pharmacology & Toxicology Representative. Fall 2014-Spring 2015.
- BGA Philanthropy Committee member. Fall 2014-Spring 2015.

## **Peer Review Service**

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- Manuscript Reviewer
  - 2017 Oncotarget
  - 2017 PLoS One
  - 2018 Cellular Physiology and Biochemistry
  - 2018 World Journal of Surgical Oncology
  - 2019 Trends in Food Science & Technology
  - 2019 Scientific Reports
- Grant Reviewer
  - 2018 Graduate Women in Science – Cancer Section

## **Analytical Instrumentation Experience**

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Experience with the following analytical instruments:

- Gas chromatography (GC) coupled to a quadrupole mass spectrometer (MS).
- Liquid chromatography (LC) coupled to the following detectors: ultraviolet spectrophotometer, triple quadrupole mass spectrometer (MS/MS aka Tandem MS), quadrupole-time of flight mass spectrometer (QTOF), time of flight mass spectrometer (TOF), triple time of flight mass spectrometer (TripleTOF), Q-Exactive Orbitrap.
- Matrix assisted laser desorption ionization (MALDI) coupled to TOF/TOF.
- Vendor experience (including software for operation and data analysis): Agilent, Bruker, AB Sciex, Thermo Scientific.

## **Workshops/Short Courses**

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- NIH Career Symposium 2020 (May 4-8<sup>th</sup>, 2020)
  - Faculty Careers: An Introduction to Academia
  - Industry Research & Development Careers
  - Science Admin Careers
  - Industry: Non-Bench Careers
  - Informational Interviews: What? How? Why?
- MetaCore
  - Using MetaCore to investigate targets identified in phenotypic screening assays (April 23<sup>rd</sup>, 2020)