

Curriculum Vitae

Anthony W. G. Burgett, Ph.D.

Information:

Address: University of Oklahoma Health Sciences Center
1110 N. Stonewall Ave
Oklahoma City, OK 73117
Email: anthony-burgett@ouhsc.edu
Office: College of Pharmacy, Office 313

Appointments:

05/2020-present **Associate Professor**
Department of Pharmaceutical Sciences
College of Pharmacy
University of Oklahoma Health Sciences Center

Full Member
Stephenson Cancer Center

08/2012-05/2020 **Assistant Professor**
Department of Chemistry and Biochemistry, University of Oklahoma

12/2010- 08/2012 **Research Associate**
Harvard University, Department of Chemistry and Chemical Biology
Laboratory of Professor Matthew D. Shair, Ph.D.

Education:

2007-2010 **Harvard University, Susan G. Komen Postdoctoral Fellow**
Research Advisor: Matthew D. Shair, Ph.D.
Project: Target Identification and Molecular Pharmacology of Oxysterol-Binding Protein (OSBP/ORP) Targeting Natural Product Compounds.

2006 **UT-Southwestern Medical Center, Ph.D. in Biological Chemistry**
Doctoral Advisors: Patrick G. Harran, Ph.D. and Michael G. Roth Ph.D.
Dissertation: Synthesis and Molecular Pharmacology of the Diazonamides

1999 **University of Oklahoma, B.S. in Microbiology**
1999 **University of Oklahoma, B.S. in Biochemistry**

Important Awards and Honors:

2019 Citation for Commitment to Education and Service in the State of Oklahoma,
Oklahoma House of Representatives

2017 University of Oklahoma Faculty Leadership Academy Graduate

2015	Paul G. Risser Innovative Teaching Fellow (University of Oklahoma)
2007–2010	Susan G. Komen for the Cure Foundation Postdoctoral Fellow
2003–2004	UT-Southwestern Medical Center Department of Basic Science NIH Graduate Fellowship Recipient
2002–2003	American Chemical Society Medicinal Chemistry Fellowship Recipient (sponsored by Aventis Pharmaceuticals)
1999	Phi Beta Kappa, <i>magna cum laude</i> , Distinguished Graduate, University of Oklahoma
1999	G.L. Cross Outstanding Microbiology Major, University of Oklahoma
1995–1999	National Merit Finalist Scholar, University of Oklahoma

Publications:

20. Ryan C. Bensen, Gokhan Gunay, Matthew C. Finneran, Isha Jhingan, Handan Acar*, and Anthony W. G. Burgett*. "Small Molecule Targeting of Oxysterol-Binding Protein (OSBP)-Related Protein 4 and OSBP Inhibits Ovarian Cancer Cell Proliferation in Monolayer and Spheroid Cell Models." *ACS Pharmacology and Translation Science*, 2021, published online February 4th, 2021. <https://doi.org/10.1021/acspsci.0c00207>

19. Ryan C. Bensen, Shawna J. Standke, Devon H. Colby, Naga Rama Kothapalli, Anh T. Le-McClain, Michael A. Patten, Abhishek Tripathi, Jonathan E. Heinlen, Zhibo Yang(**co-corresponding author**)*, and Anthony W. G. Burgett (**co-corresponding author**)* "Single Cell Mass Spectrometry Quantification of Anticancer Drugs: Proof of Concept in Cancer Patients." *ACS Pharmacology and Translation Science*, 2021, 4(1): 96-100. <https://doi.org/10.1021/acspsci.0c00156>

18. Simon S. Terzyan, Anthony W. G. Burgett, Annie Heroux, Clyde A. Smith, Blaine H. M. Mooers, Marie H. Hanigan. "Crystal structures of glutathione- and inhibitor-bound human GGT1: critical interactions within the cysteinylglycine binding site". *Journal of Biological Chemistry*, **2021**, 296: 100066. <https://doi.org/10.1074/jbc.RA120.016265>

17. Eric D. Gardner, Dustin A. Dumas, Matthew C. Finneran, Sara M. Brown, Anthony W.G. Burgett, Shanteri Singh. "Indole C6 Functionalization of Tryprostatin B Using Prenyltransferase CdpNPT." *Catalysts*, **2020**, 10(11) 1247. <https://doi.org/10.3390/catal10111247>.

16. Chandrasekhar Bandari, Erin M. Scull, Tejaswi Bevineni, Susan L. Nimmo, Eric D. Gardner, Ryan C. Bensen, Anthony W. G. Burgett, Shanteri Singh. "FgaPT2, a biocatalytic tool for alkyl-diversification of indole natural products." *MedChemComm*, **2019**. 10: 1465-1475. DOI: 10.1039/C9MD00177H

15. Ning Pan, Shawna J. Standke, Naga Rama Kothapalli, Mei Sun, Ryan C. Bensen, Anthony W. G. Burgett, Zhibo Yang*. "Quantification of Drug Molecules in Live Single Cells Using the Single-probe Mass Spectrometry Technique." *Analytical Chemistry* **2019**, 91(14):9018-9024. <https://doi.org/10.1021/acs.analchem.9b01311>

14. Brett L. Roberts, Zachary C. Severance, Ryan C. Bensen, Anh T. Le, Cori A. Malinky, Evan M. Mettenbrink, Juan I. Nuñez, William J. Reddig, Earl L. Blewett, Anthony W. G. Burgett*. "Differing Activities of Oxysterol-binding Protein (OSBP) Targeting Anti-Viral Compounds." *Antiviral Research*. **2019**, 170: 104548 <https://doi.org/10.1016/j.antiviral.2019.104548>.

13. Shawna J. Standke, Devon H. Colby, Ryan C. Bensen, [Anthony W. G. Burgett*](#) (**co-corresponding author**), Zhibo Yang(**co-corresponding author**)*. "Integrated Cell Manipulation Platform Coupled with Single-probe Mass Spectrometry for the Analysis of Single Suspension Cells." *J. Vis. Exp.* **2019**. Issue 148. DOI: [10.3791/59875](#)
12. Shawna J. Standke, Devon H. Colby, Ryan C. Bensen, [Anthony W. G. Burgett*](#) (**co-corresponding author**), and Zhibo Yang(**co-corresponding author**)*. "Mass Spectrometry Measurement of Single Suspended Cells using Combined Cell Manipulation System and the Single-probe Device." *Analytical Chemistry*. **2019**: 91 (3): 1738-1742. DOI: [10.1021/acs.analchem.8b05774](#).
11. Brett L. Roberts, Zachary C. Severance, Ryan C. Bensen, Anh T. Le, Naga Rama Kothapalli, Juan I. Nuñez, Hongyan Ma, Si Wu, Shawna J. Standke, Zhibo Yang, William J. Reddig, Earl L. Blewett, [Anthony W. G. Burgett*](#). "Transient Compound Treatment Induces a Multigenerational Reduction of Oxysterol-Binding Protein (OSBP) Levels and Prophylactic Antiviral Activity." *ACS Chemical Biology*. **2019**, 14(2): 276-287. doi:[10.1021/acscchembio.8b00984](#). **ACS Editors' Choice Selection**
10. Angelica R. Harper, Anh T. Le, Timothy Mather, [Anthony W. G. Burgett](#), William Berry and Jody A. Summers. "Design, synthesis, and ex vivo evaluation of a selective inhibitor for retinaldehyde dehydrogenase enzymes." *Bioorganic and Medicinal Chemistry*. **2018**, 26(22): 5766-5779.
9. Stefan Wilhelm, Ryan C. Bensen, Naga Rama Kothapalli, [Anthony W.G. Burgett](#), Ruth Merrifield, Chady Stephan. "Quantification of Gold Nanoparticle Uptake into Cancer Cells using Single Cell ICP-MS." *PerkinElmer Application Note*, **2018**:1-4.
8. Simon S. Terzyan, [Anthony W.G. Burgett](#), Annie Heroux, Clyde A. Smith, Blaine H. M. Mooers, Marie H. Hanigan. "Human γ -Glutamyl Transpeptidase 1: Structures of the Free Enzyme, Inhibitor-Bound Tetrahedral Transition States, and Glutamate-Bound Enzyme Reveal Novel Movement Within the Active Site During Catalysis." *Journal of Biological Chemistry* **2015**, 290(28): 17576. [10.1074/jbc.M115.659680](#)
7. Ning Pan, Wei Rao, Naga Rama. Kothapalli, Re Liu, [Anthony W.G. Burgett*](#)(**co-corresponding author**), Zhibo Yang (**co-corresponding author**)*, "The Single-probe: A Miniaturized Multifunctional Device for Single Cell Mass Spectrometry Analysis." *Analytical Chemistry*. **2014**, 86 (19): 9376–9380
6. [Anthony W. G. Burgett](#), Thomas B. Poulsen, Kittikhun Wangkanont, D. Ryan Anderson, Chikako Kikuchi, Kousei Shimada, Shuichi Okubo, Kevin C. Fortner, Yoshihiro Mimaki, Minpei Kuroda, Jason P. Murphy, David J. Schwalb, Eugene C. Petrella, Ivan Cornella-Taracido, Makrus Schirle, John A. Tallarico, Matthew D. Shair. "Natural Products Reveal Cancer Cell Dependence on Oxysterol-Binding Proteins." *Nature Chemical Biology*. **2011**, 7: 639-647. doi: [10.1038/nchembio.625](#).
5. Noelle S. Williams, [Anthony W. G. Burgett](#), Ashley S. Atkins, Xiaodong Wang, Patrick G. Harran, Steven L. McKnight. "Therapeutic Anticancer Efficacy of a Synthetic Diazonamide Analog in the Absence of Overt Toxicity." *PNAS*. **2007**, 104(7): 2074-2079.
4. Gelin Wang, Libing Shang, [Anthony W. G. Burgett](#), Patrick G. Harran, Xiadong Wang. "Diazonamide Toxins Reveal an Unexpected Function for Ornithine γ -Amino Transferase in Mitotic Cell Division." *PNAS*. **2007**, 104 (7): 2068-2073.
3. [Anthony W. G. Burgett](#), Qingyi Li, Qi Wei, Patrick G. Harran. "A Concise and Flexible Total Synthesis of Diazonamide A." *Angewandte Chemie. Int. Ed.* **2003**, 42(40): 4961-4966.
2. Jing Li, [Anthony W. G. Burgett](#), Lothar Esser, Carlos Amezcua, Patrick G. Harran. "Total Synthesis of Nominal Diazonamides—Part 2: On the True Structure and Origin of Natural Isolates." *Angewandte Chemie Int. Ed.* **2001**, 40(24): 4770-4773.

1. Jing Li, Xin Chen, Anthony W. G. Burgett, Patrick G. Harran. "Synthetic seco Forms of (-)-Diazonamide A." *Angewandte Chemie Int. Ed.* **2001**, 40(14): 2682-2685.

Patents:

3. Jody A. Summers, Angelica R. Harper, Tim Mather, Anthony W.G. Burgett, Anh Thi Quynh, "Inhibitors of Retinaldehyde Dehydrogenases and Methods of Use." **2019**, U.S. Patent # 10,519,108. Issued December 31st, 2019.

2. Matthew D. Shair and Anthony W.G. Burgett "OSW-1 Analogs and Conjugates, and Uses Thereof." **2017**, U.S. Patent # 9,790,253. Issued October 17th, 2017.

1. Patrick G. Harran, Noelle Williams, Anthony W.G. Burgett. "Diazonamide A Analog." **2009**, U.S. Patent #: 7,538,129. Issued May 26th, 2009.

Research Highlights in the Media:

Interview, Oklahoma Innovations Radio Show, June 30th, 2015. Broadcast on various Oklahoma radio stations for public science education (http://www.ok.gov/ocast/News_Media/Radio_Show/).

Lockwood D. "Peeking At A Cell's Small Molecules". *Chemical and Engineering News*. <https://cen.acs.org/articles/92/web/2014/10/Peeking-Cells-Small-Molecules.html>. Published 2014. Roberts, Burgett et. al 2019 paper (<https://pubs.acs.org/doi/10.1021/acscchembio.8b00984>) selected for ACS Editor's Choice distinction. One paper per day in all of the ACS journals (~60 journal) is selected for the ACS Editor's Choice distinction. ACS Editors' choice papers are featured on the main ACS webpage and permanently available for free.

Research Funding:

1. University of Oklahoma Start-up Package Fund.
2. 2014 Junior Faculty Summer Fellowship, University of Oklahoma, \$7,000.
3. Faculty Improvement Program, University of Oklahoma, 01/2014, \$15,000.
4. Oklahoma Translation and Clinical Science Resource Pilot Award, 01/14 – 06/14, \$50,000.
5. 2014 Junior Faculty Summer Fellowship, University of Oklahoma, \$7,000.
6. NSF, *Research Experience for Undergraduates (REU) in Structural Biology* (Award #1359457), co-PI (Sims PI), 2015-2017, \$179,000.
7. NIH, NIGMS R01, *From Single Cells to Tissues: A Novel Mass Spectrometry Approach for Bioanalysis (R01GM116116-03)*, Collaborator (Yang PI), 2015-2020, \$90,950.
8. NCI IMAT R21, *Mass Spectrometry Detection of Drugs in Single Bladder Cancer Cells From Patients (R21CA204706)*. PI, 2016-2018, \$598,648.
9. NSF, *Identifying the Critical Factors and Mindsets in College STEM Development Using a Multi-Disciplinary Longitudinal Cohort*. Co-PI (Kothapalli PI), 2017-2022, \$586,011
10. OCAST Health Award, *Synthesis and Drug Development of ORP4 Protein Inhibitors: A New Route to Precision Anti-Cancer Therapeutics (HR-17-116)*. PI, 2017-2020, \$135,000.
11. Oklahoma Center for Respiratory Disease (OCRID) Pilot Award. *Investigation and Potential Drug Targeting of Oxysterol-Binding Protein (OSBP) in Viral Respiratory Disease*. co-PI. \$25,000
12. Oklahoma Health Sciences Center/Presbyterian Health Foundation Team Science Grant, *Oxygenase JMJD4 and its Role in Breast Cancer*, co-PI, \$20,000.
13. College of Pharmacy, University of Oklahoma Startup Package

Teaching Experience:

Spring 2021 Lecturer: Pharmaceutical Care of Neurologic and Psychiatric (PHAR 7894)

Spring 2021	Lecturer: Principles of Drug Action II (PHAR 7422)
Spring 2021	Lecturer: General Principles of Pharmacology (PHSC 5561)
Spring 2021	Lecturer: Pharmaceutical Care II: Cardiology (PHAR 7824)
Spring 2021	Lecturer: Principles of Drug Action (PHAR 7133)
Spring 2021	Lecturer: Pharmaceutical Care IX: Dermatology Module (PHAR 7891)
Fall 2020	Lecturer: Pharmaceutical Care I: Medicinal Chemistry of Non-Narcotic and Narcotic Analgesics (PHAR 7813)
Spring 2020	Instructor: Organic Chemistry II: Biological Emphasis (CHEM 3153)
Fall 2019	Instructor: Organic Chemistry II: Biological Emphasis (CHEM 3153)
Spring 2019	Instructor: Impact of STEM Research on Society (FYRE II)(CHEM 2970)
Fall 2018	Instructor: Medicinal Chemistry and Therapeutic Development (CHEM 5470)
Fall 2018	Instructor: Organic Chemistry I (Honors) (CHEM 3053)
Spring 2018	Instructor: Organic Chemistry II: Biological Emphasis (CHEM 3153)
Spring 2018	Instructor: Impact of STEM Research on Society (FYRE II)(CHEM 2970)
Fall 2017	Instructor: Medicinal Chemistry and Therapeutic Development (CHEM 5470)
Spring 2017	Instructor: Organic Chemistry II: Biological Emphasis (CHEM 3153)
Spring 2017	Instructor: Impact of STEM Research on Society (FYRE II)(CHEM 2970)
Fall 2016	Instructor: Organic Chemistry I (Honors) (CHEM 3053)
Spring 2016	Instructor: Organic Chemistry II for Majors with Lab (CHEM 3164)
Fall 2015	Instructor: Organic Chemistry I for Majors with Lab (CHEM 3064)
Spring 2015	Instructor: Organic Chemistry II for Majors with Lab (CHEM 3164)
Spring 2015	Instructor: Honors FYRE (HON 2970)
Spring 2015	Instructor: Organic Colloquium (Graduate Course) (CHEM 6431)
Fall 2014	Instructor: Organic Chemistry I for Majors with Lab (CHEM 3064)
Fall 2014	Instructor: Organic Seminar (Graduate Course) (CHEM 6411)
Spring 2014	Instructor: Advanced Organic Synthesis (Graduate Course) (CHEM 6443)
Spring 2014	Instructor: Organic Seminar (CHEM 6411)
Spring 2014	Instructor: Honors FYRE (HON 2970)
Fall 2013	Instructor: Organic Chemistry I (Biological Emphasis) – Honors (CHEM 3053)
Spring 2013	Instructor: Advanced Organic Synthesis (Graduate Course) (CHEM 6443)
Spring 2013	Instructor: Organic Seminar (CHEM 6411)
Spring 2013	Instructor: Honors FYRE (HON 2970)
Spring 2011	Head Teaching Fellow: Human Disease Course (MCB/CCB 185) Dept. of Molecular and Cell Biology, Harvard University

Invited Lectures:

12/11/2020	Washington Univ. at St. Louis Medical Center, Dept. of Gynecological Oncology
10/30/2020	New Mexico Institute of Technology, Dept. of Chemistry
4/26/2019	University of Kansas Medical Center, Dept. of Biochemistry and Molecular Biol.
4/05/2019	University of Kansas, Dept. of Chemistry
1/30/2019	Wichita State University, Dept. of Chemistry and Biochemistry
1/22/2019	Univ. of Oklahoma Health Sciences Center, Dept. of Microbio. and Immunology
1/7/2019	University of Tulsa, Department of Chemistry and Biochemistry
12/18/2018	UT-Southwestern Medical Center, Department of Chemistry and Biochemistry
10/05/2018	Oklahoma State University Center for Health Sciences
10/05/2018	Oklahoma State University, Department of Chemistry
10/02/2015	Midwestern State University, Department of Chemistry
5/02/2015	University of Oklahoma Health Science Center, College of Pharmacy

Research Lectures:

11/30/2019	End2Cancer, Stephenson Cancer Center/OUHSC
11/30/2018	NCI Innovative Molecular Analytical Technology (IMAT) PI Meeting
9/28/2018	University of Oklahoma Cellular and Behavioral Neuroscience (CBN) Seminar
2/02/2018	Cancer Research Symposium, Stephenson Cancer Center/OUHSC
1/27/2017	Cancer Research Symposium, Stephenson Cancer Center/OUHSC
9/23/2016	Stephenson Cancer Centers Urologic Cancer Symposium (Featured Presenter)
11/18/2014	American Chemical Society Southwest Regional Meeting, Young Investigator Symposium, Fort Worth, Texas.
8/29/2014	Oklahoma Shared Clinical and Translation Resources External Advisory Meeting

Professional Service:

Peer reviewer for *JACS*, *Chemical Reviews*, *Molecular and Cellular Biochemistry*, *Small*

4/13/2019	Session Chair, American Chemical Society Oklahoma Pentasectional Meeting, Norman, Oklahoma.
7/24/2015	Session Chair and Organizer. "Brave New World of Natural Product Total Synthesis." American Society of Pharmacognosy (ASP) National Meeting, Copper Mountain, Colorado.
2/20/2015	Session Chair, Center for Bioanalysis (CBA) Symposium, Norman, Oklahoma.
11/18/2014	Panel Member, <i>Advice for Obtaining Research Faculty Positions</i> , American Chemical Society Southwest Regional Meeting, Fort Worth, TX.

University Service

2012-2017	<u>Director, Four-Year Research Engagement (FYRE) Program:</u>
2017-2020	<u>Associate Director, Four-Year Research Engagement (FYRE) Program:</u> Developed the FYRE program into the campus-wide program and community to mentor and advance undergraduate students interested in a professional future in STEM research. Over 470 undergraduate students have participated in the FYRE program. Additionally, over 60 OU faculty have served as FYRE mentors, and many of these faculty have used their FYRE participation for important broader impacts for federal grant submissions. Also, developed the FYRE curriculum for FYRE students to enroll in classes to accompany mentored research in individual laboratories. Since 2016, serve as co-PI on a funded NSF IUSE grant to study the FYRE students to explore the critical factors and mindsets in college STEM development.
2014-present	<u>Co-founder, Center for Bioanalysis (CBA) at the University of Oklahoma</u> CBA is an interdepartmental research unit focused on developing research capabilities and output in bioanalysis at the University of Oklahoma.
2015-2019	<u>Organizer/Mentor, NSF Research Experience for Teachers (RET)</u>

Supported the submission of the NSF RET grant application and mentored rural Oklahoma high school science teachers in summer laboratory research.

- 2014-2016 Co-PI NSF Research Experience Undergraduate (REU) in Structural Biology
As co-PI, helped to obtain NSF funding to support undergraduate students from across the nation to perform summer undergraduate at the University of Oklahoma. Major graduate student recruitment effort in Dept. of Chemistry and Biochemistry.
- 2016-present Faculty Sponsor, Student Research Discovery and Discussion Organization
OU student organization designed to foster knowledge and discussion about current scientific research.
- 2013-2015 Director of Chris T. Memorial Scholarship for Undergraduate Research:
Organized external donation to recognize and support outstanding undergraduate researchers in the Dept. of Chemistry and Biochemistry.

Mentoring:

Current Postdoctoral Fellows:

Zachary Severance, Ph.D. 2020-present

Past Postdoctoral Fellows:

Anh Le-McClain, Ph.D. 2019
Naga Rama Kothapalli, Ph.D. 2013-2017
Gopal Peddabuddi, Ph.D. 2013-2014

Current Graduate Student Advisees:

Robert Fogle 12/2017-present Current Ph.D. student
Jorge Berrios-Rivera 12/2018-present Current Ph.D. student

Doctoral Advisees:

<u>Name</u>	<u>Dates of Study</u>	<u>Degree</u>	<u>Dissertation/Thesis Title</u>
6. Zach Severance	12/2015-7/2020	Ph.D.	CHEMICAL GENETICS AND MOLECULAR PHARMACOLOGY OF THE OXYSTEROL-BINDING PROTEINS
5. Ryan Bensen	12/2015-6/2020	Ph.D.	PERSONALIZED MEDICINE: DEVELOPING PRECISION ANTIVIRAL/ ANTICANCER THERAPEUTICS AND BIO-ANALYTICAL CHEMOTHERAPEUTIC DRUG MONITORING
4. Cori Malinky	12/2015-6/2020	Ph.D.	CONCISE SYNTHESIS METHODS TO AMINOSTEROLS AND STEROL N

3. Brett Roberts	12/2014-12/2018	Ph.D.	GLYCOSIDES FOR THE DEVELOPMENT OF NEW OSW-1- DERIVED SCAFFOLDS EXPLORING THE CELLULAR EFFECTS OF SMALL MOLECULE INHIBITORS OF OXYSTEROL- BINDING PROTEIN
2. Anh T. Le-McClain	12/2014- 12/2018		DESIGN AND SYNTHESIS OF OSW-1 ANALOGS AND OTHER BIOACTIVE SMALL MOLECULES FOR POTENTIAL THERAPEUTIC APPLICATIONS
1. Juan Nunez	12/2013 – 12/2018		THE LIGAND BINDING PROPERTIES OF THE OXYSTEROL-BINDING PROTEIN FAMILY SUBFAMILY I

Masters Students (Thesis) Advisees:

<u>Name</u>	<u>Dates of Study</u>	<u>Degree</u>	<u>Dissertation/Thesis Title</u>
2. Ines Forrest	6/2019-6/2020	M.S. Thesis	IDENTIFICATION AND ISOLATION OF BIOACTIVE NATURAL PRODUCT

COMPOUNDS TARGETING
 OXYSTEROL-BINDING
 PROTEINS
 THE ROLE OF OXYSTEROL
 BINDING PROTEINS IN
 PHYSIOLOGY AND DISEASE

1. Nicholas Wasinger 12/2013 - 5/2015 M.S. (Thesis)

Masters Students (Non-Thesis) Advisees:

<u>Name</u>	<u>Dates of Study</u>	<u>Degree</u>
4. Matthew Finneran	12/2018-5/2020	M.S. (Non-Thesis)
3. Ebenezer Gyan	12/2015 – 8/2017	M.S. (Non-Thesis)
2. Caitlin Crowder	12/2012 – 4/2015	M.S. (Non-Thesis)
1. Timothy Murphy	12/2012 – 7/2014	M.S. (Non-Thesis)

Undergraduate Researcher:

<u>Name</u>	<u># of semesters</u>	<u>Dissertation Title</u>	<u>Awards</u>
1. Gianni Manginelli	7	Synthesis of OSW-1 Mimetics for the Development of ORP4 Precision Therapeutic Drugs	Most Outstanding Research Grand Prize Undergraduate Research Day
2. Stephen Dunne	5	Generation of a Fluorescently Tagged Oxysterol Binding Protein (OSBP)	
3. Cole Townsend	4	Mediation of Lipid Metabolism and Cell Viability by the Oxysterol Binding Protein (OSBP)	
4. Jacob Ruzicka	4	Single-Cell Mass Spectrometry and Cancer: Uncovering Mechanisms of Natural Products	
5. Logan Melot	4	Through Analytical Metabolomics The Levels of ORP1L in Monocytic THP1 Cells and Their Differentiated Macrophage Forms	McNair Scholar
6. Andrew Fancher	5	Towards the Synthesis of Oxysterol-binding Protein (OSBP) Binding Compounds	
7. Bennett Oden	3		Dick van der Helm Award

8. Emily Bird	1	
9. Katchen Lachmayr	1	
10. Kelly Deguilhem	1	
11. Sophia Sakers	5	
12. Bliss Baird	1	
13. Amy Banka	8	
14. Matthew Barron	4	
15. Devin Butts	4	
16. Casey Cai	7	Goldwater Scholar
17. Thomas Cain	1	
18.		
19. Matthew Finneran	1	
20. Pierce Franklin	1	
21. Katie Grogan	1	
22. Heather Legan	1	
23. Gianni Manginelli	5	
24. Evan Mettenbrink	2	
25. Suparshva Parikh	1	Goldwater Nominee
26. Cole Townsend	4	Carl Albert Award, Fullbright Honorable Mention
27. Thomas Salas	1	
28. Peter Sandell	1	
29. Abhishek Soni	1	
30. Mark Wendelboe	1	
31. Shary Bouvette	2	
32. Kelsey Dewbre	2	
33. Laura Pott	1	
34. Makayla Taylor	1	
35. Courtney Martin	1	
36. Gabrielle Nguyen	1	
37. Caitlin Glenn	2	
38. Caitlin Tobin	1	
39. Kaitlin Lutz	1	

Graduate Student Dissertation Committee Member

<u>Name</u>	<u>Degree</u>	<u>Dissertation Title</u>
1. Ningyun Zhou	Ph.D.	BACTERIOPHAGE-BASED BIOMATERIALS FOR MANIPULATING DERIVATION AND DIFFERENTIATION OF HUMAN-INDUCED PLURIOPTENT STEM CELLS
2. Xian Tiang	Ph.D.	SINGLE-PROBE MASS SPECTROMETRY IMAGING: APPLICATIONS AND ADVANCED DATA ANALYSIS
3. Shawna Standke	Ph.D.	SINGLE-PROBE MASS SPECTROMETRY AS A BIOANLYTICAL TOOL FOR QUANTITATIVE SINGLE CELL ANALYSIS: FROM CELL LINES TO PATIENTS
4. David Wolloscheck	Ph.D.	DIFFERENTIAL CONTRIBUTIONS OF OUTER MEMBRANE PERMEABILITY AND ACTIVE EFFLUX IN PHYSIOLOGY AND DRUG SUSCEPTIBILITY OF GRAM-NEGATIVE BACTERIA
5. Chengcheng Zhang	Ph.D.	GENETIC AND GENOMIC ANALYSIS OF BAHD ACYLTRANSFERASES THAT DECORATE CELL WALL COMPONENTS WITH PHENOLIC ESTERS AND ALTER PLANT BIOMASS RECALCITRANCE
6. Nichlas Massaro	Ph.D.	RHODIUM CARBENOID INITIATED CASCADES FOR THE SYNTHESIS of DIVERSE MEDIUM-SIZED HETEROCYCLES
7. Logan Nickels	Ph.D.	ROLES OF UNIQUE MEMBRANE FUSION PROTEINS
8. Renmeng Liu	Ph.D.	SINGLE CELL METABOLOMICS USING MASS SPECTROMETRY: DEVICES, METHODS AND APPLICATIONS
9. Aaron Clarke	M.S. (Non-Thesis)	
10. Adam Alber		
11. Allsion Mattes	Ph.D.	
12. April Aloway		
13. Caio Franca	Ph.D.	TARGETING <i>PLASMODIUM</i> INVASION PATHWAYS IN MOSQUITOES TO BLOCK MALARIA TRANSMISSION
14. Cory Bunger		
15. Hailee Rau	M.S. (Non-Thesis)	
16. Jamie Sykes		
17. Jessica Gardner		
18. John Pope		
19. Mason Van Orden		

20. Nathan Donahue
21. Tyler Olsen
22. Vardhan Satalkr
23. Xiang Tian
24. Xiaozheng Dou