



The Office of Sponsored Programs

Annual Report

Fiscal Year 2021

July 1, 2020 - June 30, 2021

Introduction

It is with great pleasure to present the Office of Sponsored Programs (OSP) Annual Report for fiscal year 2021. This report is compiled annually and includes comprehensive information for all external and intramural grants, and academic and scholarly activities.

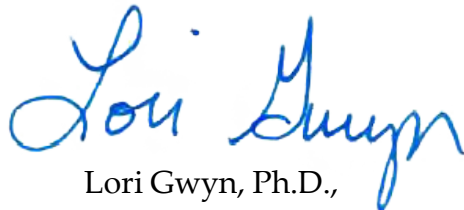
For FY21, a total of 66 proposals were submitted worth \$14,345,893. The total funding received was \$18,546,754 from 51 proposals. This was a 273% increase in funding over FY20. In looking at these numbers without the CARES Act, the University at large had an overall 13% increase over last years funding. From the 2018-2023 university strategic plan, SWOSU Pathway to Excellence, Strategic Goal 3 states that as a university we will increase the Annual Institutional grant portfolio by \$5 million by spring 2023. Due in part to the unique times we are living in, we have done well to exceed that goal.

Our office remains committed to the support of faculty, administration, and staff in pursuit of extramural funding by providing proposal preparation support, grant-writing training, researching funding sources, and maintaining compliance with federal, state, and local compliance laws including the university Internal Review Board, BioSafety, Financial Conflicts of Interest, Responsible Conduct of Research and others as applicable. For the upcoming year, we will be adding online resources and going paperless! This move will allow our office to be more efficient and get your documents approved and submitted in a timelier fashion, so you have time to focus on what is important for your project.

We are also proud to support the efforts of the University Research and Scholarly Activity Committee (URSAC). URSAC plans the annual SWOSU Research and Scholarly Activity Fair, coordinates the nominee selection for the Research Day at the Capitol undergraduate student to represent SWOSU, and reviews and selects recipients for the faculty Proposal Development Awards.

Congratulations to all faculty, staff, administration, and students for all your hard work and dedication in securing resources and contributing to global knowledge. We look forward to continuing support of these endeavors through the coming years.

Sincerely,



Lori Gwyn, Ph.D.,
Director

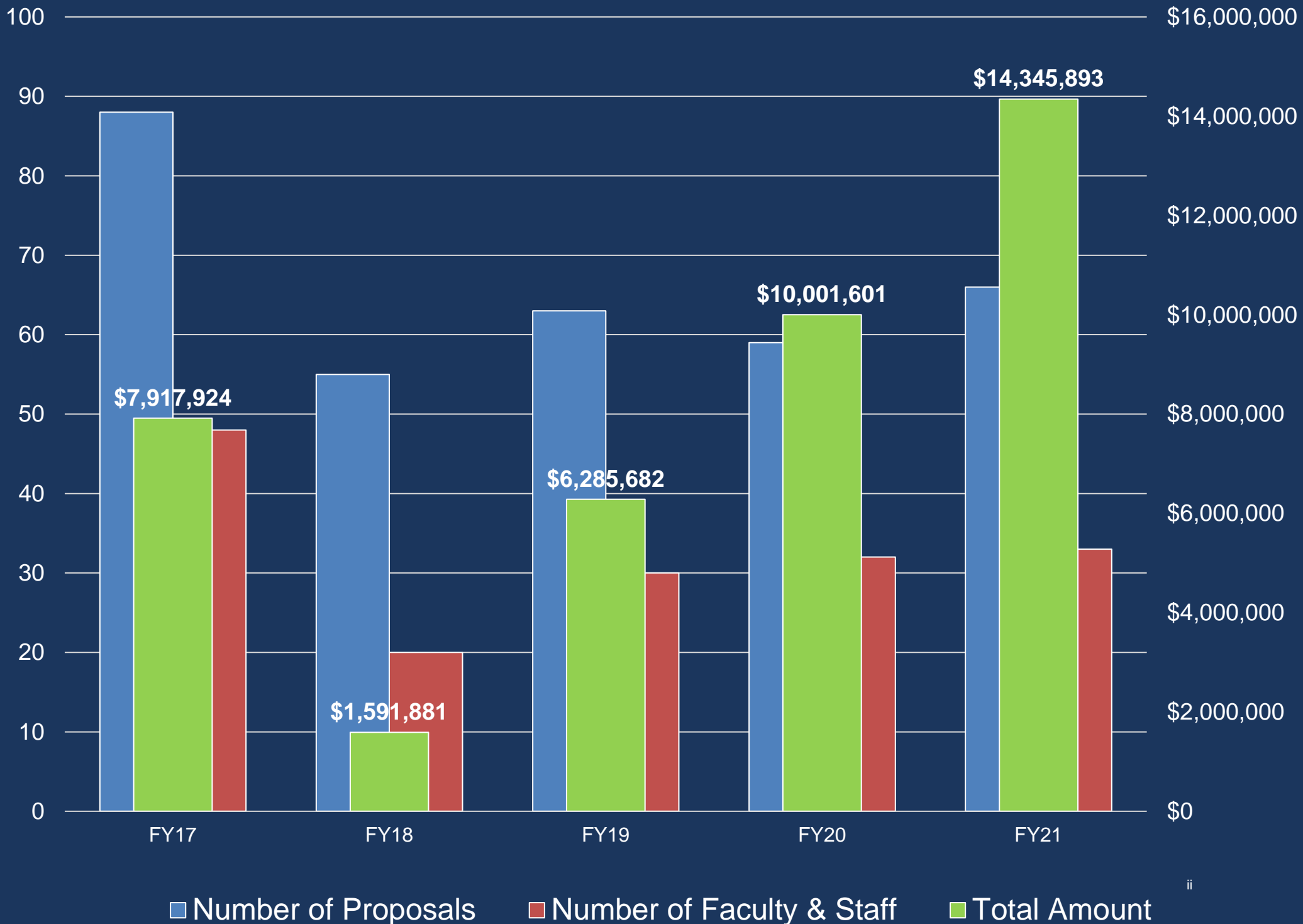


C.J. Smith,
Assistant Director

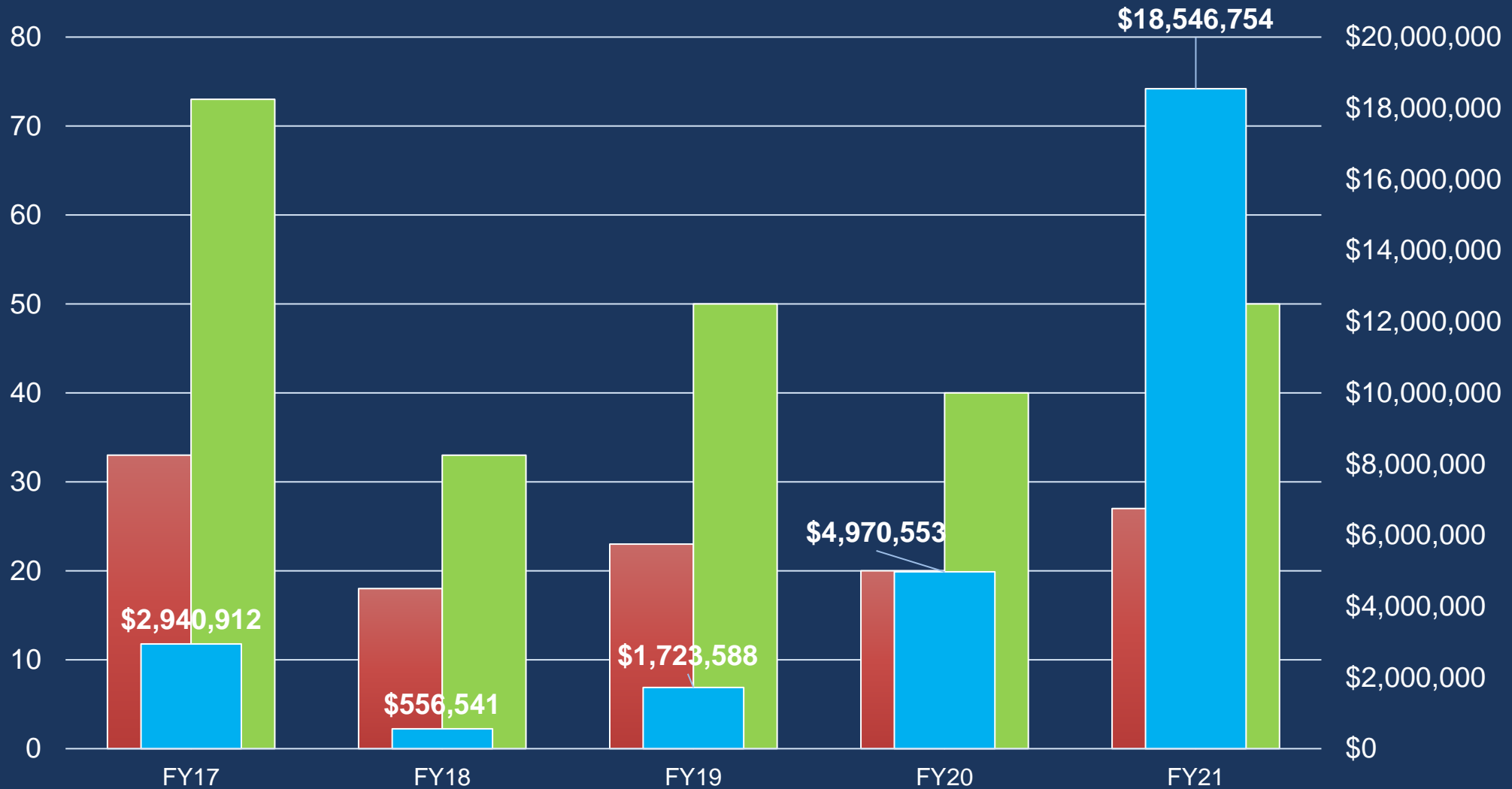


Jennifer Cook-Johns,
Grants Specialist

Pre-Award Activity

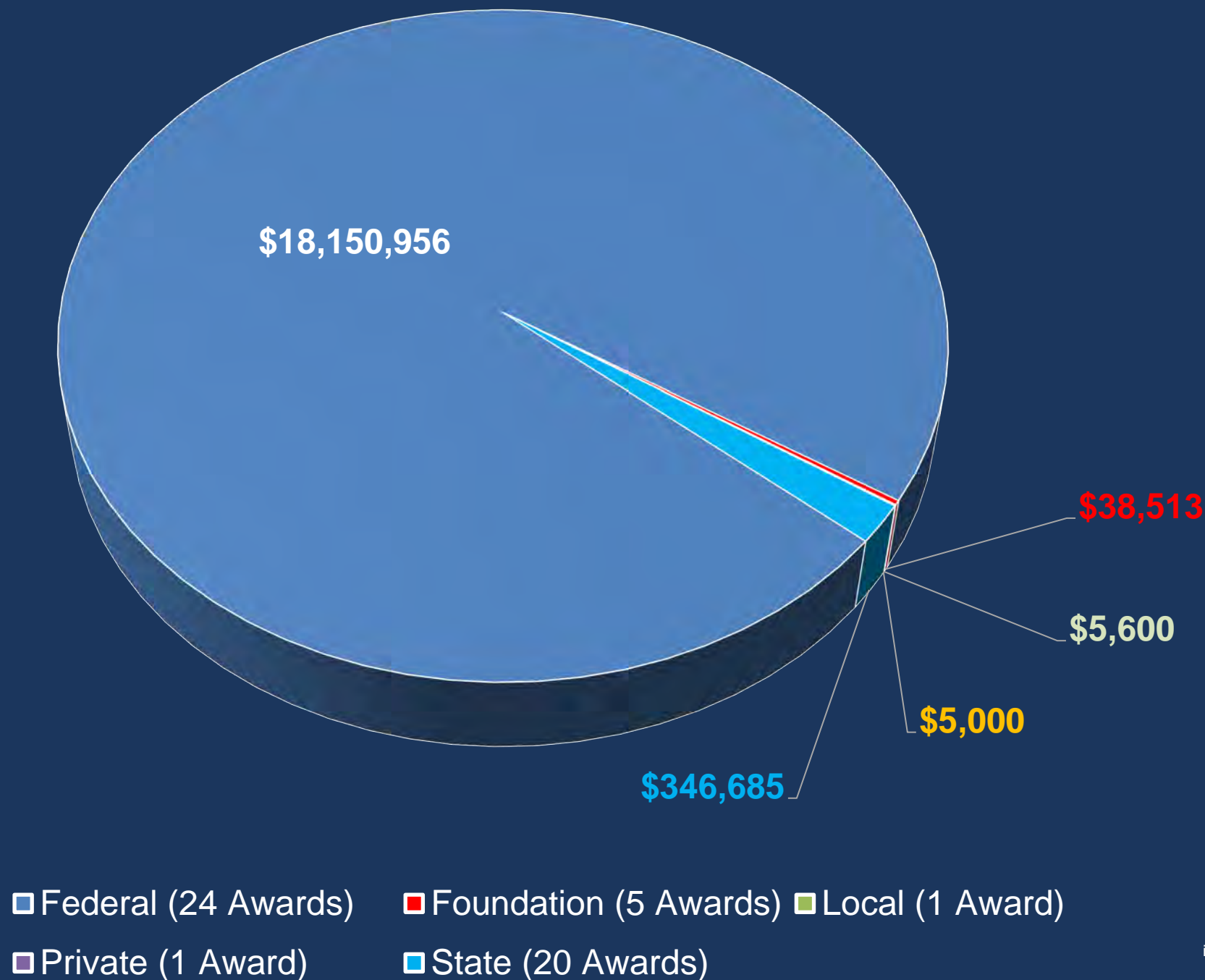


Funded Extramural Projects

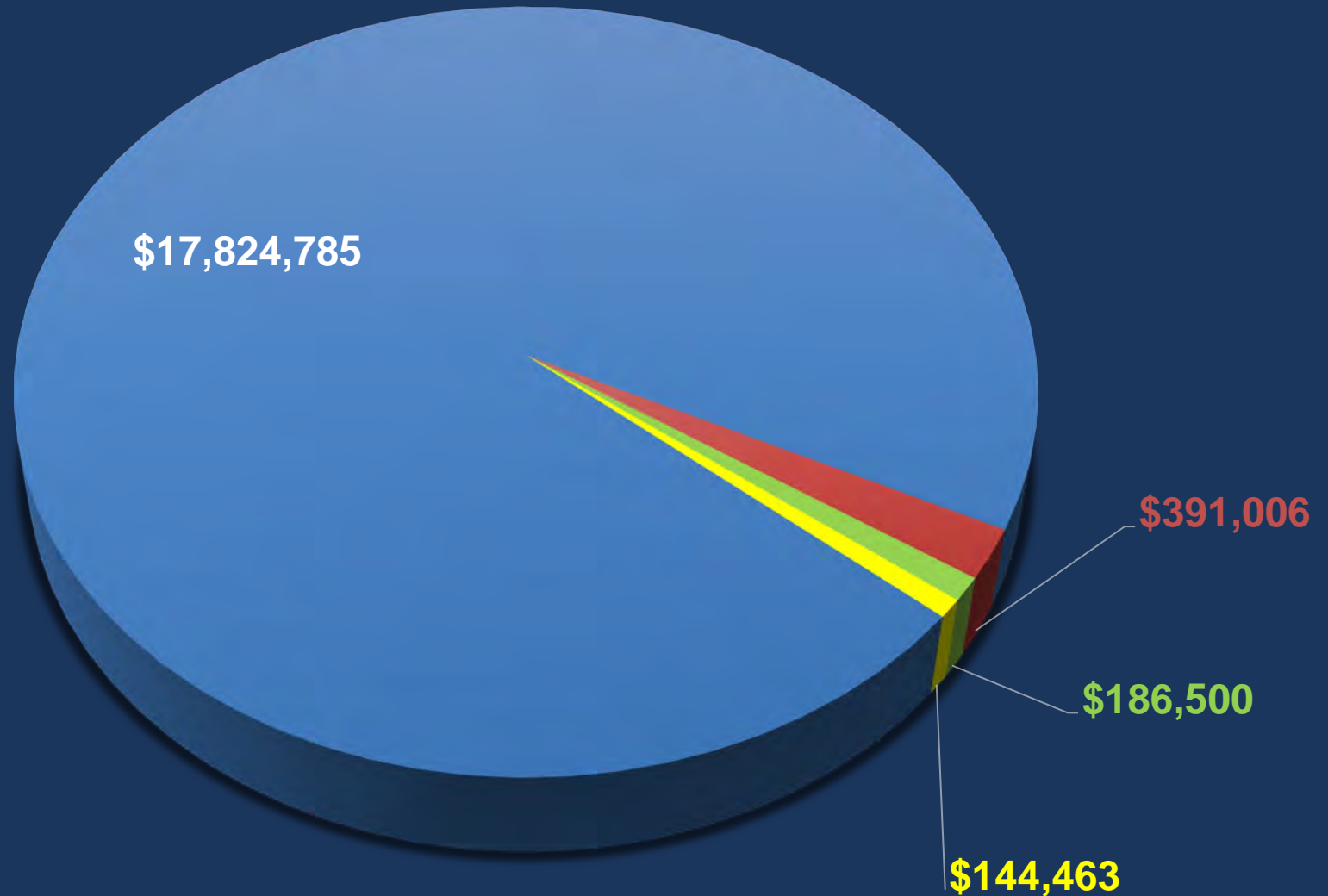


■ Number of Faculty & Staff ■ Number of Awards ■ Total Amount

Extramural Awards by Source

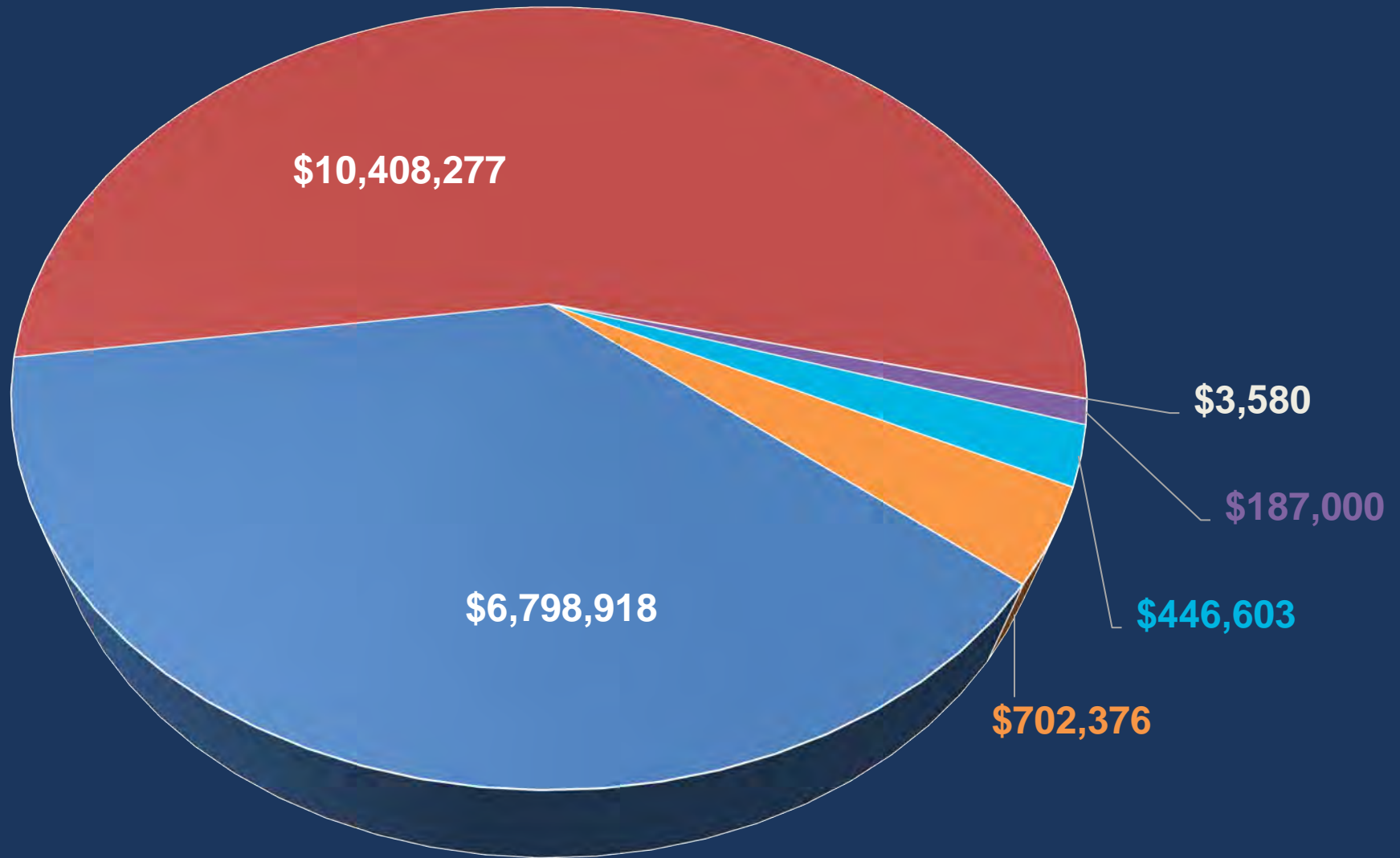


Extramural Awards by Division



- Administration (15 Awards)
- College of Arts and Sciences (22 Awards)
- College of Pharmacy (3 Awards)
- College of Professional and Graduate Studies (11 Awards)

Extramural Awards by Function



□ Academic Support (15 Awards)

■ Instruction (2 Awards)

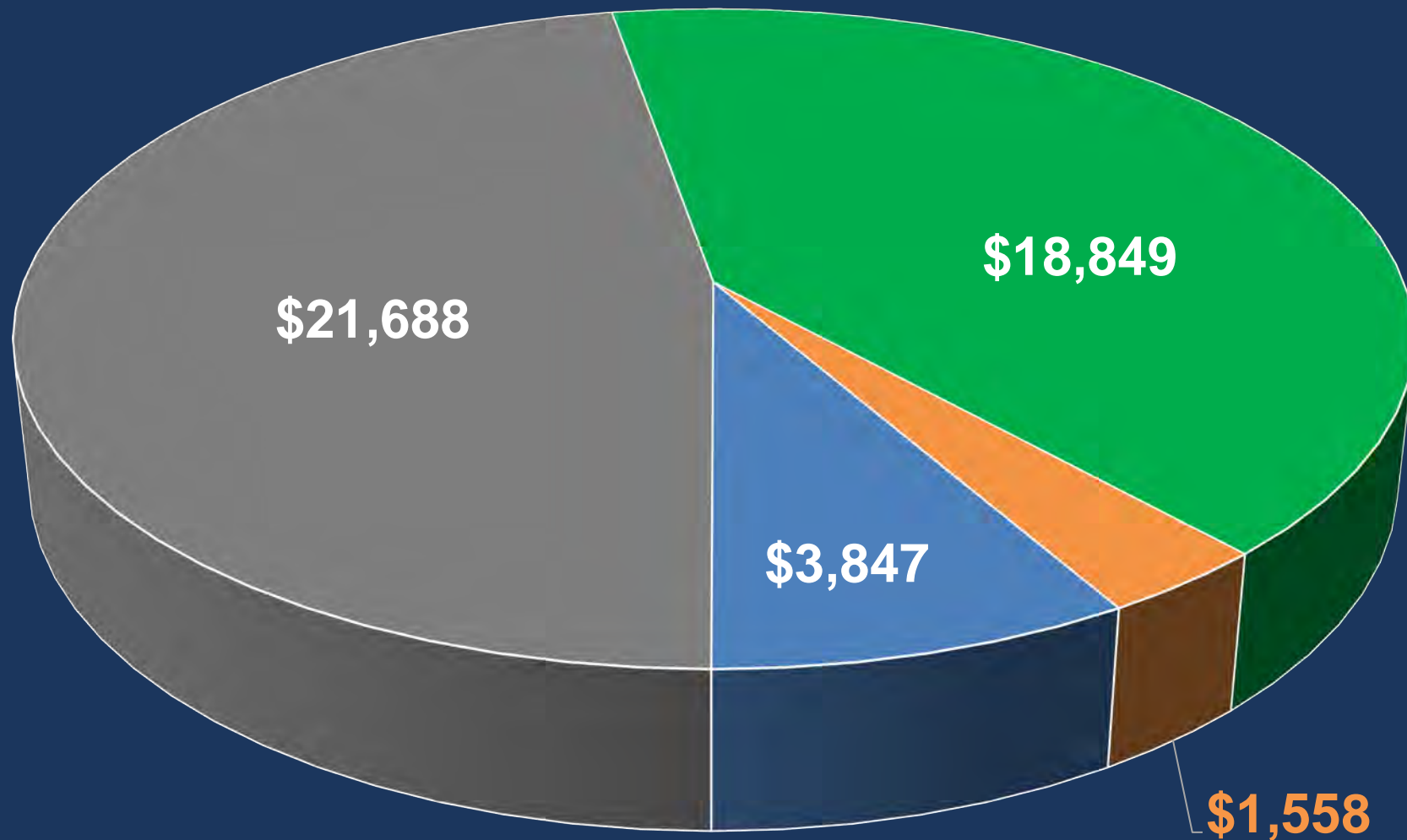
■ Research (25 Awards)

■ Institutional Support (2 Awards)

■ Public Service (4 Awards)

■ Student Services (3 Awards)

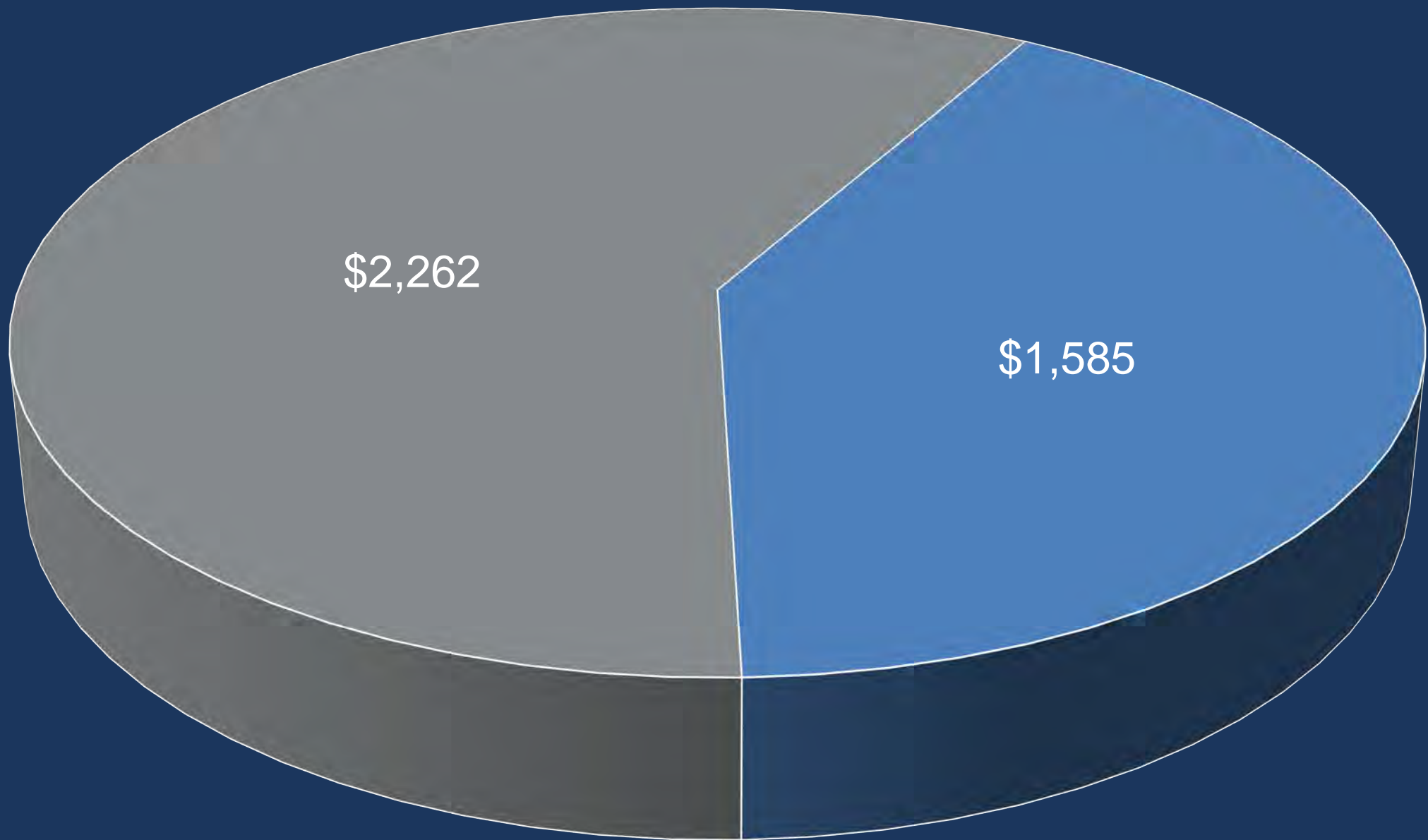
SWOSU Internal Funding Activity



OSP Financial Assistance
Organized Research - CAS

Organized Research - CPGS
Organized Research - COP

Financial Assistance



□ Faculty and Staff

■ Students

SWOSU Research and Scholarly Activity Fairs

Fall 2020 & Spring 2021

SWOSU virtually hosted the Annual Research and Scholarly Activity Fairs on November 9, 2020, and April 14, 2021. This was accomplished using the online presentation platform, Symposium. Since the fairs were available online, the presentations could be viewed for a week after the beginning day. This gave visitors the opportunity to experience all the amazing research that takes place on campus.

For the November 9th fair, **52** posters/presentations were submitted by **59** students and faculty members from the departments of Social Sciences; Education; Engineering Technology; Biological Sciences; Art, Communication, & Theatre, Computer Sciences; Business; Music Therapy; Parks and Recreation Management; Chemistry & Physics; Music; and Psychology. During the week following November 9th, there were a total of **1,033** visits to the website, **12,265** unique poster/presentation views, **160** comments made on presentations, and a total of **92.15** hours spent by viewers engaging with the event.

For the April 14th fair, a total of **43** posters/presentations were submitted by **85** students and faculty members from the departments of Music Therapy; Pharmacy; Psychology; Business; Engineering Technology; Computer Sciences; Education; Music; Language & Literature; Biological Sciences; Mathematics; Chemistry & Physics; Allied Health Sciences; Parks and Recreation Management; and Social Sciences. The week following April 14th gave **617** visitors the opportunity to view the posters and presentations, generating **2,115** unique poster/presentation views, **170** comments made on presentations, and **55.93** hours spent by viewers engaging with the event.

10 Most viewed posters from the Fall 2020 Fair

	Poster Title	Presenter Name(s)
1.	"Positive Vs. Traditional Psychology: Personal Therapy"	Nacona Freeman
2.	Escherichia coli Grows Best in Basic pH Environments"	Breanna Guthrie
3.	"Savage Remote controlled Gate Thrower"	Matt Savage
4.	"1D/2D NMR Analysis of α -Pinene and Crystallization of Cholestanediol"	Maegyn Grubbs, and Emily Burgess
5.	"Exploring Music Therapy's Effect on the Immune System"	Bailey Hanes
6.	"Music Therapy for Sexual Trauma: Interventions That Heal"	Tiffany LaFerry
7.	"Genetic Investigation of the Impact of Single Nucleotide Polymorphism (SNP) on Caffeine Metabolism"	Kirsten Carpenter & Olga Castaneda
8.	"The Effect of Music Therapy on People Affected by Leprosy"	Joseph Nguyen
9.	"Sign Language Translator"	Ghannam Alshammari
10.	"Fallout Boys: Western Oklahomans' Cold War Survival Preparations"	Landry Brewer

10 Most viewed posters from the Spring 2021 Fair

	Poster Title	Presenter Name(s)
1.	"In Your Feels: Developing Emotionally Intelligent Business Leaders in the Age of COVID-19."	Brittan Jenks, Randi Lee Troglin, Clinthia Piñon, & Robert Williams
2.	"Food Insecurity and COVID Among SWOSU Students"	Jordon Monks, Phillip Baker, & Jackson Seeberger
3.	"Music for All: Inclusion for Special Learners in Instrumental Music Education"	Whitney Callen
4.	"Two for the Road."	Teddy Deaton
5.	"The Lil Workout Buddy."	Cody Lane
6.	"Farmacist Pill Counting Bin."	Ryan Boecker
7.	"Type II Diabetes."	Latisha Holmstrom, Treasure Chimere-Obika, Meghan Mitch, Cassidy Penoyer, Jasmine Gagnon, & Phillip Baker;
8.	"Sexual Selection in Response to Varying Levels of Eutrophication."	Denton Parsells
9.	"Assistive Robotics and their Uses."	Thomas Klassen
10.	"Personal Watercraft Trailer."	Preston Lewis

FY21 Grants, Research, and Scholarly & Academic Activity Reports



Dr. Keturah Adams

Department of Chemistry and Physics



Organized Research

The Oklahoma State Regents for Higher Education, through OK-INBRE, awarded the grant, “OK-INBRE Release Time for Grant Proposal Development: Functional Characterization of Alternative Splice Variants of Elongation of Very Long Chain Fatty Acids-4 (ELOVL4) in Human Disorders,” in the amount of \$8,337 from June 2021 – December 2021. With the release time funded by OK-INBRE, Dr. Adams will research Autosomal dominant Stargardt Macular Dystrophy (STGD3) and age-related Spinocerebellar Ataxia 34 (SCA34) caused by mutations in the ELONGation of Very Long chain fatty acids (ELOVL4) gen 1,2.

Dr. Veronica Aguiñaga

Department of Education



Organized Research

Dr. Veronica Aguinaga, along with Dr. Dana Oliver, was awarded \$2,960 in Organized Research funding from the Dean of the College of Professional and Graduate studies for her project “Stronger Professionals Every Day.”

Ms. Lesley Alvarado

Office of the Dean of Students



Extramural Activity

The Women's Foundation of Oklahoma awarded \$5,000 to the "Single Parent's Network" at SWOSU. The Single Parent Network focuses on single parents, typically young women, struggling to complete their degree by identifying effective strategies to meet the varied needs of those parents. Dr. Ruth Boyd is the Co-PI for this grant.

Dr. Lisa Appeddu

Department of Pharmaceutical Sciences



Extramural Activity

SAGE STEAM Camp is a week-long, residential, Science, Technology, Engineering, Arts, and Mathematics camp for girls entering the eighth and ninth grades. This camp exposes these girls to a variety of career opportunities and gives them a taste of college life to inspire young Oklahoma women to pursue activities, education, and careers in STEAM after camp.

Funded The National Institutes of Health, through OK-INBRE, awarded \$5,900 to fund the “SAGE STEAM Camp at SWOSU– Development of professional development experience for middle school teachers” project from May 2020 – April 2021. This project supported the development and execution of a new professional development experience for middle school teachers in Spring 2020.

Dr. Appeddu applied for \$6,525 from OK-INBRE to fund the project, “SAGE STEAM Camp,” from May 2021 – April 2022.

Dr. Appeddu applied for \$10,178 from OK-EPSCoR to fund the project, “SAGE STEAM Camp at SWOSU,” from May 2021 – June 2021.

The City of Weatherford Hotel/Motel Tax Advisory Committee awarded \$5,600 to fund the “SAGE STEAM Camp,” from May 2021 – August 2021.

Organized Research

Dr. Lisa Appeddu was awarded \$1,558 in Organized Research funding from the Dean of the College of Pharmacy for her projects “Salivary Measures,” “Cannabis Study,” and “Brazil Nut Study.”

Dr. Amy Barnett

Department of Education



Extramural Activity

The Indian Child Welfare Act, through the Oklahoma Department of Human Services, has awarded \$42,130 to fund the project, “ICWA Partnership Grant – Research Data and Evaluation Chair (Year 3)” from July 2020 to June 2021. The scope of this grant includes convening regular committee meetings, providing consultation and assistance to the grant team in the identification of data and research needs of the grant on an on-going basis, conduct research and gather data on evidence based or best practice strategies that will assist the grant team in meeting the goals and objectives of the grant.

Ms. Madeline Baugher

SWOSU NASA Coordinator



Extramural Activity

The National Aeronautics and Space Administration (NASA), through Oklahoma State University, awarded \$7,598 to fund the project, "Space-borne Antennas and Circuits for Condensed Radars and STEM (SPACERS) – Sigmarsson (Year 3)," from January 2021 – May 2021.

The National Aeronautics and Space Administration (NASA) awarded \$1,890 to fund the "Engineering Thin Film Solar Cells for Radiation Hardness, Lifetime, and Efficiency" project from September 2020 to September 2021.

The Oklahoma State Regents for Higher Education awarded \$1,890 to fund the project, "Engineering Thin Film Solar Cells for Radiation Hardness, Lifetime, and Efficiency," from September 2020 - September 2021.

The National Aeronautics and Space Administration (NASA) awarded \$3,781 to fund the "Research Infrastructure Development" project from June 2020 to August 2021.

The Oklahoma State Regents for Higher Education awarded \$3,781 to fund the project, "Research Infrastructure Development," from June 2020 - August 2021.

The Oklahoma State Regents for Higher Education awarded \$6,917 to fund the project, "Research Implementation Grant (SPACERS) - Sigmarsson," from June 2020 - May 2021.

The National Aeronautics and Space Administration (NASA) awarded \$6,917 to fund the project, "Research Implementation Grant (SPACERS) - Sigmarsson," from June 2020 - May 2021.

The National Aeronautics and Space Administration (NASA) awarded \$62,000 through the grant, "Space Grant College and Fellowship Program 2020 – 2024," from July 2020 – June 2021.

The Oklahoma State Regents for Higher Education awarded \$3,781 to fund the project, "Research Implementation Grant (SPACERS) - Sigmarsson," from June 2020 - May 2021.

Ms. Baugher applied for \$28,710 from NASA to fund the project, “NASA EPSCoR Research Infrastructure Development,” from August 2021 – September 2026.

Ms. Baugher applied for \$1,320 from the Oklahoma State Regents for Higher Education to fund the project, “NASA EPSCoR Development of Robust Electrolytes in Lithium-Ion Batteries for Mars and Moon Missions – Regents Funds – Year 1,” from August 2021 – July 2024.

Ms. Baugher applied for \$17,750 from NASA to fund the project, “NASA EPSCoR Development of Robust Electrolytes in Lithium-Ion Batteries for Mars and Moon Missions – Years 1-3,” from August 2021 – July 2024.

Ms. Baugher applied for \$1,900 from NASA to fund the project, “Dosimeter Flight Opportunities Testing (Benton),” from March 2021 – March 2024.

Ms. Baugher applied for \$1,900 from NASA to fund the project, “Active Tissue Equivalent Dosimeter International Space Station (Benton),” from March 2021 – March 2024.

Dr. Andrew Bigley

Department of Chemistry and Physics



Extramural Activity

The “Investigation of the unique phosphodiesterase from *Sphingobium* sp. TCM1 capable of the degradation...” grant was awarded \$30,850 by the National Institutes of Health, through the Board of Regents of the University of Oklahoma, Health Sciences Center from June 2020 – April 2021.

Dr. Bigley applied for \$7,200 from OK-INBRE to fund the project, “INBRE Summer Undergraduate Research Program”, from May 2021- July 2021.

Dr. Bigley applied for \$55,000 from the American Chemical Society Petroleum Research Fund to fund the project, “Enzymatic Decontamination of Organophosphorus Flame Retardant Diesters,” from May 2022 – August 2024.

Dr. Bigley applied for \$24,946 from OK-INBRE to fund the project, “High-Speed Centrifuge to Support Biochemical Research,” from May 2021 – April 2022.

Dr. Bigley applied for \$28,348 from OK-INBRE to fund the project, “Evolution of the Organophosphate Degrading Diesterases from the PHP-Family,” from May 2021 – April 2022.

Organized Research

Dr. Andrew Bigley was awarded \$2,000 in Organized Research funding from the Dean of the College of Arts and Sciences for his project “Structural Studies of the Unique Phosphodiesterase PHP-family Enzymes.” This project created approximately 50 student research hours for three student researchers.

Dr. Ruth Boyd

Vice President for Student Affairs



Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$60,000 to fund the “GEAR UP” project from July 2020 to June 2021. The Gaining Early Awareness and Readiness for Undergraduate Programs grant program is designed to increase the number of low-income students who are prepared to enter and succeed in postsecondary education.

Dr. Boyd applied for \$250,000 from the Oklahoma Tobacco Settlement Endowment Trust (OK-TSET) to fund the project, “SWOSU Student Food Pantry.”

Ms. Brenda Burgess

Vice President for Administration and Finance



Extramural Activity

The Office of Management and Enterprise Services awarded \$199,928.28 with the grant, “Coronavirus Relief Fund,” from January 2021 – January 2022.

The U.S. Department of Education awarded the following grants:

“CARES Act Southwestern Oklahoma State University part 2 for Institutions,” \$1,979, from June 2020 – June 2021.

“SIP CARES Funds,” \$169,077, from June 2020 – March 2022.

“CARES Act SWOSU SIP,” \$246,699, from June 2021 – March 2022.

“CARES Act Southwestern Oklahoma State University part 2 for Students,” \$1,721,757, from April 2020 – April 2022.

“CARES Act Southwestern Oklahoma State University part 2 for Institutions,” \$4,143,126, from May 2020 – May 2022.

“CARES Act SWOSU Part 2 for Institutions,” \$5,061,600, from May 2021 – January 2022.

“CARES Act SWOSU Student Aid Portion,” \$5,346,677, from April 2021 – January 2022.

Dr. Stephen Burgess

Department of Psychology

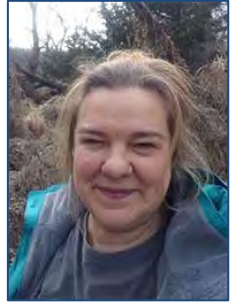


Organized Research

Dr. Stephen Burgess was awarded \$1,500 in Organized Research funding from the Dean of the College of Professional and Graduate studies for his project "Online Surveys for Several Projects."

Dr. Lisa Castle

Department of Biological Sciences



Scholarly and Academic Activity

Dr. Lisa Castle was awarded \$190 in in Office of Sponsored Programs funding to attend the 2021 Ecological Society of American Conference.

Dr. Rickey Cothran

Department of Biological Sciences



Extramural Activity

The Beta Beta Beta Biological Honor Society awarded \$450 to fund the project, “Sexual Selection in a Changing world: How Nutrient Loading Affects Sexual Selection and Consequently the Health of Populations,” from October 2020 – May 2021. The goal of this project is to assess the patterns of sexual selection in amphipods in the genus *Hyaella* across a gradient of land use in NW Pennsylvania lakes.

Dr. Cothran applied for \$16,336 from the Oklahoma Department of Wildlife Conservation - Environmental Protection Agency to fund the project, “A Survey for *Tiaenodes Tridontus* in SE Oklahoma,” from January 2022 – December 2022.

Dr. Cothran applied for \$2,000 from the Western North American Naturalist Grant Program to fund the project, “Natural history of *Hyaella* amphipods in western Oklahoma freshwater springs,” from May 2021 – May 2023.

Organized Research

Dr. Rickey Cothran was awarded \$1,568 in Organized Research funding from the Dean of the College of Arts and Sciences for his project “Sexual selection in a changing world: How human-induced environmental change affects sexual selection and consequently the health of populations.” This project created approximately 60 research hours for two student researchers.

Dr. Randy Curry

Department of Rural Health

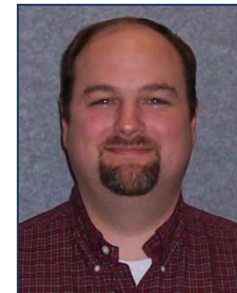


Extramural Activity

Dr. Curry applied for \$1,000,000 from the United States Department of Agriculture to fund the project, “SWOSU Rural Health Center Telemedicine Program,” from October 2021 – June 2024.

Dr. Trevor Ellis

Department of Chemistry and Physics



Extramural Activity

Dr. Ellis applied for \$7,200 from OK-INBRE to fund the project, “Dynamic Resolution of A-Amino Acids,” from June 2021 – August 2021.

Dr. Ellis applied for \$31,960 from OK-INBRE to fund the project, “OK-INBRE Faculty Mini Grant,” from May 2021 – April 2022. Dr. Jon Henrikson is the Co-PI on this project.

Dr. Ellis applied for \$402,741 from the National Science Foundation to fund the project, “Catalytic Dynamic Resolution of Amino Acids,” from May 2021 – May 2024.

Dr. Amanda Evert

Department of Business



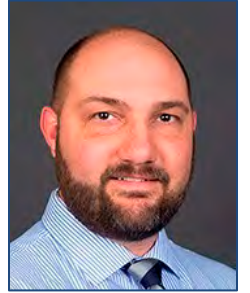
Organized Research

Dr. Amanda Evert, along with Ms. Jonna Myers, was awarded \$5,120 in Organized Research funding from the Dean of the College of Professional and Graduate studies for her project "Operation Education: Emotional Intelligence."

Dr. Evert, along with Dr. Todd Wigger, was awarded \$2,560 in Organized Research funding from the Dean of the College of Professional and Graduate studies for her project "A Contextual Review of Undergraduate Leadership Programs in US."

Dr. Jeremy Evert

Department of Computer Sciences



Proposal Development Award

Dr. Jeremy Evert applied for and was awarded an Office of Sponsored Programs Proposal Development Award in the amount of \$5,739 for his project "SWOSU Research Computing Use Case Development."

Mr. Phillip Fitzsimmons

Al Harris Library



Extramural Activity

Mr. Fitzsimmons applied for \$114,546 from the National Endowment for the Humanities to fund the project, "Library Archive (American Rescue Plan Grant)," from January 2021 – June 2022.

Mr. Fitzsimmons applied for \$9,840 from the National Endowment for the Humanities to fund the project, "Selecting a Consultant to Review the Stafford Archives," from September 2021 – March 2023.

Scholarly and Academic Activity

Mr. Phillip Fitzsimmons published the chapter "Underserved Patrons in University Libraries: Assisting Students Facing Trauma, Abuse, and Discrimination" in the publication *ESL Club Newsletter Contributes to Inclusiveness on Campus*.

Mr. Fitzsimmons also shared a presentation titled "Library Celebrates Diversity by Joining Forces to Form a Partnership with the University's ESL Club" and "ESL Club and Library Form Partnership" at the 2021 Association of College and Research Libraries Virtual Conference.

Mr. Fitzsimmons reviewed an article titled "A Cosmic Shift in The Screwtape Letters" for the journal *Mythlore*.

Mr. Fitzsimmons wrote the article "Mythprint" for the journal *Mythopoeic Society Literary Journal*.

Ms. Lisa Friesen

Center for Excellence in Teaching and Learning



Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$2,000 to fund the project, “Fall 2020 Remote Proctoring Study Reporting Areas,” from September 2020 – December 2020. The funds provided support remote proctoring efforts which can include helping onboard or pilot a remote proctoring program or help to support an ongoing program during the fall semester.

Dr. Barry Gales

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Barry Gales served as a guest instructor at the Great Plains Family Medicine Residency Program in January 2021, presenting a program titled "2020 Rhinitis Guideline Review."

Dr. Gales also served as a guest instructor at the Great Plains Family Medicine Residency Program in September 2020, presenting a program titled "Vancomycin 2020 Guidelines Update."

Dr. Gales reviewed the following articles for *The Annals of Pharmacotherapy*:

- "New hypoglycemic drugs in the treatment of T2DM with NAFLD: A systematic review and network meta-analysis"
- "Glycemic Variability with Insulin Glargine versus Detemir in Hospitalized Patients with Diabetes"

Dr. Mark Gales

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Mark Gales reviewed the following articles for *The Annals of Pharmacotherapy*:

- "Amoxicillin/clavulanic acid-associated severe neutropenia"
- "Overcoming Cough and Angioedema: Advocating for the Use of ARBs Over ACE Inhibitors"

Dr. Swarup Ghosh

Department of Mathematics



Scholarly and Academic Activity

Dr. Swarup Ghosh was awarded \$210 in Office of Sponsored Programs funding to attend the 2021 Joint Mathematics Meeting.

Dr. Brooke Gildon

Department of Pharmacy Practice



Scholarly and Academic Activity

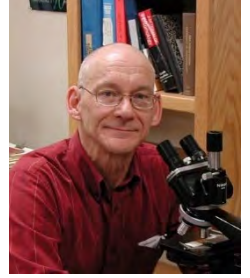
Dr. Brooke Gildon submitted and was awarded an internal grant titled “A pilot study evaluating the impact of 3D printed airway models in pharmacy education.”

Dr. Gildon published a journal article “Crizanlizumab for vaso-occlusive pain crises in patients with sickle cell disease.”

Dr. Gildon presented a workshop titled “Take a deep breath: Updates in asthma and COPD management.”

Dr. Peter Grant

College of Arts and Sciences



Scholarly and Academic Activity

Dr. Peter Grant published the article “What Do We Know about Rev. Alfred E. Eaton?” for the publication *The Mayfly Newsletter*, 2020, 23(2), p. 4.

Dr. Lori Gwyn

Office of Sponsored Programs & Academic Support Center



Extramural Activity

The U.S. Department of Education awarded \$402,235 to fund the project, “Title III,” from October 2020 – September 2021. The Title III grant has given SWOSU the opportunity to create the Academic Support Center (ASC). The Academic Support Center (ASC) was created to strengthen SWOSU's efforts toward student retention and degree completion. The Center integrates support services provided by the Office of Retention Management, the Student Success Center, and Career Exploration. Student services in the ASC include pre-advising assistance, career exploration services, academic tutoring, peer mentoring, and academic coaching from a professionally trained staff in each of these areas. Students can get assistance with time management, organization, study skills, and major selection.

Scholarly and Academic Activity

Dr. Lori Gwyn published the article “A zinc site in the C-terminal domain of RAG1 is essential for DNA cleavage activity” in *Journal of Molecular Biology*.

Dr. Aimee Henderson

Department of Rural Health



Extramural Activity

The Oklahoma State Department of Health awarded \$175,000 to fund the project, “Improving the Health of Americans through the Prevention and Management of Diabetes, Heart Disease, and Stroke,” from June 2020 to June 2021. With this grant, SWOSU offers certificate trainings to Oklahoma pharmacists for CE and specialized training in cardiovascular/diabetes with the goal of successfully assessing risk, promoting cardiovascular disease prevention, and encouraging patient adherence to therapy.

Dr. Jon Henrikson

Department of Chemistry and Physics



Extramural Activity

OK-INBRE, through their SMaRT grant, awarded \$6,000 to fund the project, "Isolation and Characterization of UV-Light Phenolic Compounds from *Zygnema* sps.," from June 2021 – August 2021. The goal of this study is to provide research experience for an undergraduate student and to isolate and structurally characterize the UV-light induced compounds being produced by *Zygnema* sps.

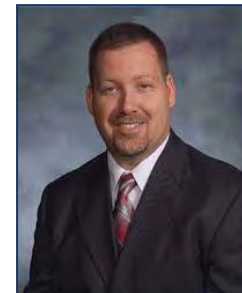
Dr. Henrikson applied for \$2,200 from OK-INBRE to fund the project, "Summer Undergraduate Research Program," from May 2021 – July 2021.

Organized Research

Dr. Jon Henrikson was awarded \$2,233 in Organized Research funding from the Dean of the College of Arts and Sciences for his project "Determination of Metal Complex pKa's by NMR." This project created approximately 210 research hours for one student researcher.

Dr. Timothy Hubin

Department of Chemistry and Physics



Extramural Activity

OK-LSAMP awarded \$12,000 to fund the “Oklahoma Louis Stokes Alliance for Minority Participation: Final Amendment to NCE with SWOSU,” project from September 2014 – August 2020. OK-LSAMP is a consortium of Oklahoma colleges and universities working together to develop programs aimed at increasing the number of students from under-represented populations who receive degrees in Science, Technology, Engineering, and Mathematics (STEM) disciplines.

The American Chemical Society, Petroleum Research Fund awarded \$23,333 to fund the project, “High Valent Pd and Ni complexes of topologically constrained azamacrocycles for catalytic organometallic C-C bond formation,” from September 2020 – August 2021. The goal of this project is to explore the likely organometallic compounds possible from the topologically constraining cross-bridged ligands’ starting complexes and how their C-C bond formation catalysis resembles and/or differs from the known catalytic compounds of Mirica.

The Oklahoma Center for the Advancement of Science and Technology (OCAST) awarded \$45,000 to fund the project, “Novel dual CXCR4/CXCR7 receptor antagonist: Targeting secondary disease progression and resistance to immunotherapy in breast cancer,” from October 2020 – June 2021. This project examines the cooperativity between CXCR4 and CXCR7 chemokine receptors in governing the precise biological response to CXCL12 stimulation, limiting the effectiveness of targeting either receptor independently.

The OK-LSAMP Alliance Phase VI grant was awarded \$54,525 by the National Science Foundation, through Oklahoma State University, from September 2019 – August 2021. The LSAMP program at SWOSU is designed to address the underrepresented minority students pursuing advanced degrees in science, mathematics, engineering, and technology.

The “OK-INBRE Summer Mentoring and Research Training” project was awarded \$6,000 by OK-INBRE from May 2021 – August 2021. The goal of this project is to systematically design, synthesize, and characterize novel transition metal complexes of modified tetraazamacrocycles based on our published potent transition metal complex CXCR4 antagonists and the newly identified CXCR7 binding ligands.

The National Science Foundation, through EPSCoR, awarded \$70,849 to the project, “Socially Sustainable Solutions for Water, Carbon, and Infrastructure Resilience in Oklahoma – SWOSU,” from July 2021 to June 2022. The novelty of this project is that it employs a social science framework inclusive of the public, opinion leaders, and the science community; and builds on theories of policy change to achieve science-based learning and wicked problem resolution at the intersections of four distinct, but related focus areas.

Dr. Hubin applied for \$21,600 from OK-INBRE to fund the project, “OK-INBRE Summer Undergraduate Research Program,” from June 2021 – August 2021.

Mr. Paul Hummel

Department of Parks and Recreation Management

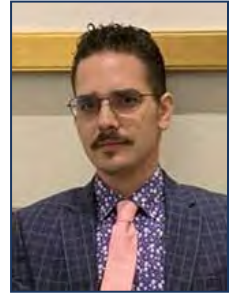


Extramural Activity

Mr. Hummel applied for \$77,000 from the Oklahoma State Department of Tourism to fund the project, "Crowder Lake Nature Trail," from May 2021 – April 2022.

Dr. Daniel Kavish

Department of Social Sciences



Extramural Activity

Dr. Kavish applied for \$501,300 from the Clean Slate Initiative to fund the project, “Status Fragility: A Mixed Methods Approach Assessing the Psychosocial Behavioral Effects of Records,” from January 2021 – January 2023.

Dr. Jeremy Klingler

Department of Biological Sciences



Extramural Activity

Dr. Klingler applied for \$2,000 from Western North American Naturalist to fund the project, “Immediate effects of the asteroid-induced KPg extinction event revealed through Computed Tomography,” from April 2021 – April 2024.

Dr. Doug Linder

Department of Chemistry and Physics



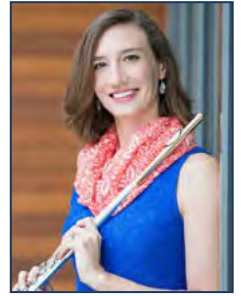
Extramural Activity

The National Institutes of Health, through OK-INBRE, awarded \$31,887 to fund the project, “Cross-Bridged Transition Metal Complexes of Cyclens: Structural Influences,” from June 2020 – April 2021. The goal of this research is to examine chemokine receptors that are involved in a wide variety of diseases, including cancer, HIV/AIDS, as well as inflammatory disorders such as rheumatoid arthritis and inflammatory bowel disease.

Dr. Linder applied for \$10,000 from OK-INBRE to fund the project, “Learning Molecular Characterization Techniques of Biomedical Polymers and Materials,” from May 2021 – July 2021.

Dr. Shelley Martinson

Department of Music



Extramural Activity

The Oklahoma Arts Council awarded \$580 to fund the “SWOSU Flute Day” from July 2020 – June 2021. SWOSU Flute Day is an annual one-day event that features performances, workshops, master classes, and educational activities free to flutists from around the state and region.

Scholarly and Academic Activity

Dr. Shelley Martinson was awarded \$500 in Office of Sponsored Programs funding towards recording a piece of original music.

Dr. Martinson was also awarded an additional \$2,262 in Office of Sponsored Programs funding to fund the SWOSU Flute Choir travel for rehearsals and recording for the National Flute Association Virtual Convention.

Organized Research

Dr. Shelley Martinson was awarded \$2,000 in Organized Research funding from the Dean of the College of Arts and Sciences for her project “Flute|Trombone: An Album of Original Compositions.” Flute|Trombone: An Album of Original Compositions is a research project that successfully professionally record four original works for flute and trombone. This CD represents a permanent resource for future flute and trombone duos and chamber musicians.

Proposal Development Award

Dr. Shelley Martinson applied for and received an Office of Sponsored Programs Proposal Development Award in the amount of \$6,000 for her project “Playing It Forward: Establishing a Community Music School at SWOSU.”

Dr. Phillip Martinson

Department of Music



Organized Research

Dr. Phillip Martinson was awarded \$2,000 in Organized Research funding from the Dean of the College of Arts and Sciences for his project “Flute|Trombone: An Album of Original Compositions.” Flute|Trombone: An Album of Original Compositions is a research project that successfully professionally record four original works for flute and trombone. This CD represents a permanent resource for future flute and trombone duos and chamber musicians.

Scholarly and Academic Activity

Dr. Phillip Martinson was awarded \$500 in Office of Sponsored Programs funding towards recording a piece of original music.

Dr. David Martyn

Department of Chemistry and Physics



Extramural Activity

Dr. Martyn was awarded \$2,200 from OK-INBRE to fund the project, "Application of 1D and 2D MHz NMR techniques to the structure elucidation of cholesterol and cholesterol derivatives," from May 2021 – July 2021.

Dr. Regina McGrane

Department of Biological Sciences



Extramural Activity

The Beta Beta Beta Biological Honor Society awarded \$600 to fund the project, “Evaluating the mechanism of syringafactin antimicrobial activity,” from October 2020 – May 2021. The goal of this project is to analyze syringafactin as an active microbial due to its ability to disrupt gram negative outer membranes.

The Beta Beta Beta Biological Honor Society awarded \$600 to fund the project, “Evaluating the ability of *Pseudomonas syringae* to interfere with lant colonization of human pathogens via syringafactin production,” from October 2020 – May 2021. The objective of this project is to investigate the ability of *P. syringae* to block plant colonization by human pathogens.

OK-INBRE awarded \$4,400 to purchase supplies for the project, “Syringafactin: Bactericidal mechanisms and applications in food safety,” from May 2021 to July 2021. The research from this project will provide significant insights into the potential use of syringafactin as a preventative agent against food borne illness and phytopathogens. It will also provide significant training and educational experiences to undergraduate students at SWOSU.

The project, “Identifying *Pseudomonas aeruginosa* chemoreceptors responsible for detecting syringafactin,” was awarded \$6,000 by an OK-INBRE SMaRT grant from May 2021 – August 2021. The goal of this research is to investigate which of the twenty-six chemoreceptors produced by *P. aeruginosa* are involved in syringafactin detection by using a library of mutants that each contain a disruption in a different chemoreceptor gene.

Organized Research

Dr. Regina McGrane was awarded \$2,201 in Organized Research funding from the Dean of the College of Arts and Sciences for her project “Syringafactin Biosurfactant: investigating sensory pathways in bacterial competitors and mechanisms of antimicrobial activity.” Dr. McGrane’s project created over 200 student research hours for five students.

Dr. Holly McKee

Department of Social Sciences



Organized Research

Dr. Holly McKee was awarded \$408 in Organized Research funding from the Dean of the College of Professional and Graduate studies for her project “CPGS Survey Monkey Annual Fee.”

Doug Misak

Business Enterprise Center



Extramural Activity

The “Partnership Recognition Program FY20” grant was awarded by the Oklahoma State Regents for Higher Education in the amount of \$500 from March 2020 – June 2020. The Regents Business Partnership Excellence Award is designed to highlight successful partnerships and to further cultivate the higher learning environment through State Regents’ Economic Development Grants.

Ms. Jonna Myers

Department of Business

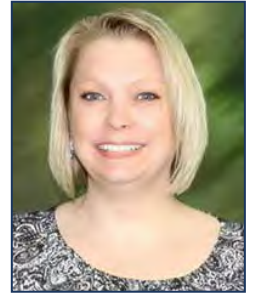


Organized Research

Ms. Jonna Myers, along with Dr. Amanda Evert, was awarded \$5,120 in Organized Research funding from the Dean of the College of Professional and Graduate studies for her project “Operation Education: Emotional Intelligence.”

Ms. Jamie Novey

Upward Bound



Extramural Activity

The “Upward Bound Grant Proposal” was funded by the U.S. Department of Education for \$450,677 from September 2020 – August 2021. Upward Bound (UB) is a federally funded program that provides fundamental support to participants in their preparation for college entrance. It provides opportunities for participants to succeed in their precollege performance and ultimately in their higher education pursuits. During the school year, students attend monthly academic meetings and participate in an online tutoring program. During the summer, students live on the SWOSU campus and participate in a full schedule of academic, social (including sports), and cultural activities for six weeks. During the school year and summer, students will also receive personal and academic counseling, assistance with financial aid and college admission applications, preparation for the ACT, an ACT fee waiver, will visit college campuses, and will be exposed to professional careers and mentors.

Dr. Dana Oliver

Department of Education



Organized Research

Dr. Dana Oliver, along with Dr. Veronica Aguinaga, was awarded \$2,960 in Organized Research funding from the Dean of the College of Professional and Graduate studies for her project “Stronger Professionals Every Day.”

Dr. Taylor Orgeron

Department of Language and Literature



Scholarly and Academic Activity

Dr. Taylor Orgeron published a chapter titled “The Ethics of Playing, Researching, and Teaching Games in the Writing Classroom” in the publication *Writing to Gaming Audiences: A Case Study*.

Dr. Edna Patatanian

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Edna Patatanian reviewed the following articles for the journal *Antibiotics*:

- "Impetigo animal models: a review of their feasibility and clinical utility for therapeutic appraisal of investigational drug candidates' ability"
- "Intolerable burden of impetigo in endemic settings: A review of 'state of Play' and future directions for research on alternative treatments"
- "Electrolyte and acid-base disorders triggered by aminoglycoside or colistin therapy: a systematic review"

Dr. Patatanian reviewed the article "East-Asian specific PAX4 R192H/S is associated with early-onset Type 2 Diabetes in young Chinese" for the journal *Diabetes Therapy*.

Dr. Patatanian reviewed the case study "Agomelatine-induced Restless Legs Syndrome: A case report" for the journal *BMC-Psychiatry*.

Dr. Patatanian reviewed the article "An Experimental Education Project for Consultation of Older Adults During the Pandemic and Healthcare Lock-down" for *Healthcare Journal*.

Dr. Patatanian reviewed the article "Psychological effects of home confinement and social distancing derived from COVID-19 in the general population. A systematic Review" for *International Journal of Environmental Research and Public Health*.

Dr. Patatanian reviewed the article, "Systematic review of black cohosh (*cimicifuga racemosa*) for management of polycystic ovary syndrome-related infertility" for the *Journal of Pharmacy Practice*.

Dr. Patatanian was appointed to serve as a member of the American Society of Health-System Pharmacists House of Delegates at the First House of Delegates Meeting.

Dr. Cynthia Peña

Department of Language and Literature



Scholarly and Academic Activity

Dr. Cynthia Peña was awarded \$185 in Office of Sponsored Programs funding to present at the Congreso Internacional de Estudios Hispánicos.

Dr. Pamela Rollins

Department of Allied Health



Organized Research

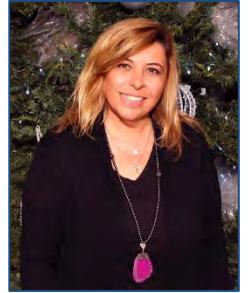
Ms. Pamela Rollins presented her paper “Ethnographic Writing and Community Engagement in the Online Composition Classroom” at the Conference on College Composition & Communication Regional Conference in December 2020.

Ms. Rollins also reviewed abstracts for the National Conference of Undergraduate Research 2021 and manuscripts for *Dialogue: The Interdisciplinary Journal of Popular Culture and Pedagogy*.

Ms. Rollins served as an executive committee member for the Texas Conference of College Teachers of English.

Dr. Tugba Sevin

Department of Language & Literature



Extramural Activity

The National Endowment for the Humanities, through the Oklahoma Humanities Council, awarded \$500 to fund the “Expanding Language Learning Opportunities Beyond the Classroom” project from March 2021 – October 2021.

Dr. Horrick Sharma

Department of Pharmaceutical Sciences



Extramural Activity

Dr. Sharma applied for \$55,698 from OK-INBRE to fund the project, "Development of Small Molecule Inhibitors Targeting Cancer Metabolism," from May 2021 – October 2021.

Dr. Pragya Sharma

Department of Biological Sciences



Extramural Activity

OK-INBRE awarded \$6,000 to fund the OK-INBRE SMaRT project, “Targeting Energy Metabolism in Cancer,” from June 2021 – July 2021. The goal of this project is to identify the metabolic signatures of pancreatic cancer using cell-line models and investigate the interplay between the Warburg and OXPHOS in Pancreatic cancer cell survival and proliferation.

Organized Research

Dr. Pragya Sharma was awarded \$2,000 in Organized Research funding from the Dean of the College of Arts and Sciences for her project “Understanding the Metabolic Vulnerabilities of Pancreatic Cancer.” Dr. P. Sharma’s project created approximately 40 research hours for two student researchers.

Proposal Development Award

Dr. Pragya Sharma applied for and was awarded an Office of Sponsored Programs Proposal Development Award in the amount of \$5,955 for her project “Understanding the Metabolic Phenotypes and Metabolic Vulnerabilities in Pancreatic Cancer.”

Dr. Randall Sharp

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Randall Sharp published the journal article "Use of Ranolazine for the Treatment of Coronary Microvascular Dysfunction."

Dr. Vijay Somalinga

Department of Biological Sciences



Extramural Activity

OK-INBRE awarded \$1,000 to fund the project, “Homology modeling and purification of β -carbonic anhydrase from *Streptococcus sanguinis*, an opportunistic pathogen involved in subacute infective endocarditis,” from September 2020 – April 2021. The goal of this research is to identify, analyze, and purify carbonic anhydrase (CA) from *S. sanguinis* for biochemical and structural studies.

OK-EPSCoR, through the Board of Regents for the University of Oklahoma, awarded \$4,095 to fund the project, “Elucidating the Structure and Biochemical Properties of Carbonic Anhydrases from *Photobacterium profundum* and *Streptococcus sanguinis* for Biological Carbon Capture and Sequestration,” from June 2021 – July 2021. This research opportunity will provide the student with a first-hand experience in conducting research at a comprehensive research university.

Dr. Somalinga applied for \$135,000 from OCAST to fund the project, “Deciphering metabolic pathways utilized by *S. sanguinis* during blood dissemination and endocardial growth: Roles of SSA_2154 (beta-Carbonic anhydrase), SSA_0809 (Enamine deaminase) and SSA_0908 (Substrate binding protein),” from November 2021 – November 2024.

Dr. Somalinga and his Co-PI, Dr. Eric Paul, applied for \$10,000 from OK-INBRE to fund the project, “SURP: Developing New Activity in Virology and Mycology for UG Microbiology Programs,” from June 2021 – July 2021.

Dr. Somalinga applied for \$65,906 from OK-INBRE to fund the project, “Deciphering Metabolic Pathways Utilized by *S. Sanguinis* during Bacteremia and Endocardial Growth: Roles of SSA_2154 (beta-Carbonic Anhydrase), SSA_0809 (Enamine deaminase) and SSA_0908 (Substrate binding protein),” from May 2021 – April 2022.

Dr. Somalinga applied for \$32,042 from OK-INBRE to fund the project, “Deciphering Metabolic Pathways Utilized by *S. sanguinis* during Bacteremia and Endocardial Growth: Roles of SSA_2154 (beta-Carbonic anhydrase), SSA_0809 (Enamine deaminase) and SSA_0908 (Substrate binding protein),” from May 2021 – April 2022.

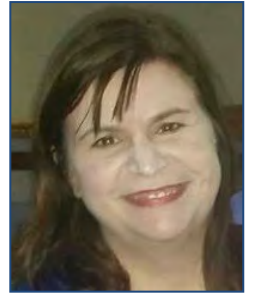
Dr. Somalinga applied for \$7,200 from OK-INBRE to fund the project, “Elucidating the Structural and Biochemical Properties of a Putative Enamine Deaminase and a Putative Amino Acid Binding Protein from a Pathobiont, *Streptococcus Sanguinis*,” from May 2021 – July 2021.

Organized Research

Dr. Vijay Somalinga was awarded \$3,463 in Organized Research funding from the Dean of the College of Arts and Sciences for his project "Preliminary Crystallization and Biochemical Studies on Beta Type Carbonic Anhydrases." Dr. Somalinga's project created over 60 research hours for two student researchers.

Dr. Debra Stevens

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Debra Stevens reviewed the article “Crizanlizumab for the Prevention of Vaso-Occlusive Pain Crises in Sickle Cell Disease” for *Journal of Pharmacy Technology*.

Dr. Richard Tirk

Department of Music



Extramural Activity

The Oklahoma Arts Council awarded \$3,000 to fund the “51st Annual Jazz Festival” from July 2020 – June 2021. The Annual SWOSU Jazz Festival is to help develop a better appreciation and understanding of jazz among the university faculty, public school teachers, students, and the general public in Oklahoma. The goal of the SWOSU Jazz Festival is to give students, teachers, and the public an opportunity to hear and talk to internationally known jazz artists, and give the university students and faculty an opportunity to perform with outstanding jazz artists.

Dr. Tirk applied for \$5,000 from the Oklahoma Arts Council to fund the project, “52nd Annual Jazz Fest from July 2021 – June 2022.

Dr. Matthew Tracy

Department of Music



Organized Research

Dr. Matthew Tracy was awarded \$2,150 in Organized Research funding from the Dean of the College of Arts and Sciences for his project “New Music for Alto Saxophone & Piano: A Commission of ChiChen Lee.” Dr. Tracy’s project resulted in the commission of a new, original work titled “Modus Tollens” scheduled to be debuted on the campus of Southwestern Oklahoma State University in the Fall of 2021, Spring 2022 at the North American Saxophone Alliance Biennial Conference, and in Summer 2022 at the World Saxophone Congress in Kurashiki, Japan.

Dr. Muatasem Ubeidat

Department of Biological Sciences



Extramural Activity

The National Institutes of Health, through the University of Oklahoma, Health Sciences Center, awarded \$75,000 through the “OK-INBRE Equipment Carryover” grant from May 2019 – April 2021. This grant supports research and teaching in the biomedical sciences across the curriculum in Pharmacy, Chemistry, and Biology. The equipment purchased will strengthen the research training provided to students in all biomedical research labs at SWOSU.

Dr. Todd Wigger

Department of Business



Organized Research

Dr. Todd Wigger, along with Dr. Amanda Evert, was awarded \$2,560 in Organized Research funding from the Dean of the College of Professional and Graduate studies for his project “A Contextual Review of Undergraduate Leadership Programs in US.”

Dr. Nancy Williams

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Nancy Williams was appointed to serve three-year terms to the American Society for Parenteral and Enteral Nutrition Abstract Review Committee and the Membership Committee.

Dr. Williams was appointed to serve as Group Leader for the Parenteral Nutrition Section of the Abstract Review Committee for the American Society for Parenteral and Enteral Nutrition

Dr. Williams reviewed newsletter articles for the Oklahoma Society of Health-System Pharmacists.

Dr. Williams reviewed five posters for the American Association of Colleges of Pharmacy Annual Meeting.

Dr. Williams served as the Residency Panel co-moderator at the Student Chapter of the Oklahoma Society of Health-System Pharmacists workshop.

Dr. Williams served as a moderator for the Parenteral Nutrition Therapy Oral Abstract Presentation Session at the American Society for Parenteral and Enteral Nutrition 2021: Nutrition Science and Practice Virtual Conference.

Dr. Williams reviewed the article "Perceived Wellness Among Pharmacy Residents During COVID-19" for the *Journal of the American Pharmacists Association*.

Dr. Williams reviewed forty-one abstracts for the Parenteral Nutrition Section of the American Society for Parenteral and Enteral Nutrition 2021: Nutrition Science and Practice Virtual Conference.

Dr. Williams reviewed the following articles for the *American Journal of Health-System Pharmacy*:

- "Teaching A-Z for a New Generation of Pharmacy Learners"
 - "Evaluation of a Therapeutic Interchange from Vancomycin to Linezolid"
- article "System Pharmacy Education Team: Standardizing and Improving the Education of Pharmacy Students in a Large Health

System"

Dr. Williams presented a poster titled "Improving Patient Knowledge of Safe Medication Disposal Through an Educational Interactive Activity" at the American Society of Health-System Pharmacists Virtual Midyear Clinical Meeting.

Dr. Williams judged and coordinated the local clinical skills competition for the American Society of Health-System Pharmacists Virtual Midyear Clinical Meeting.

Dr. Wendy Yoder

Academic Support Center



Extramural Activity

The SWOSU Foundation awarded \$13,530 to fund Academic Support Center Activities from 2021 – 2022 from June 2021 – May 2022. With this funding, the Academic Support Center will purchase items to further outreach initiatives for incoming students and awareness activities for current students.

Scholarly and Academic Activity

Dr. Wendy Yoder presented a workshop session titled “Engaging, Advising, Supporting, and Retaining First-Year Students During an Ongoing Pandemic” for the National Academic Advising Association annual conference.