



ANNUAL RESEARCH REPORT

TOGETHER, WE'LL
GUIDE THE FUTURE
OF TOMORROW'S
HEALTH CARE.

OFFICE OF RESEARCH AND SPONSORED PROGRAMS

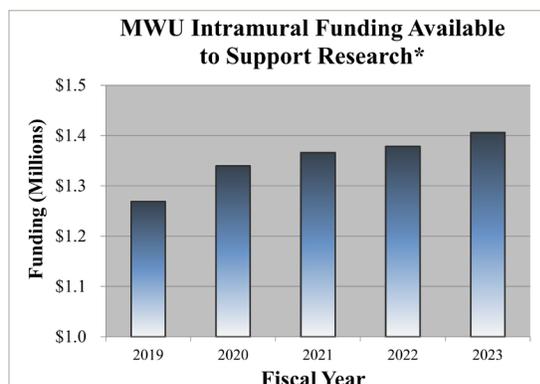
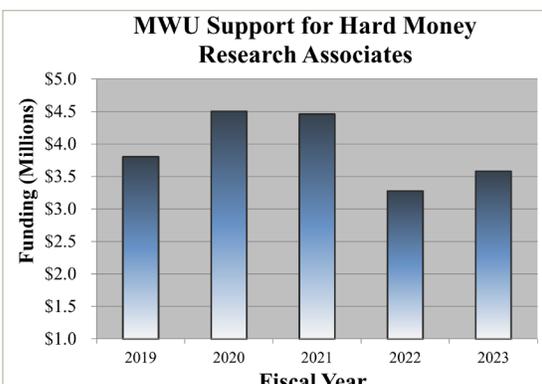
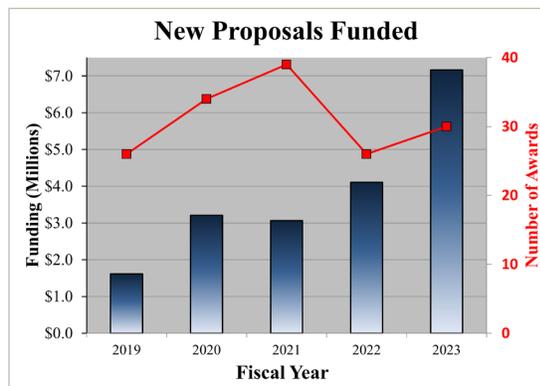
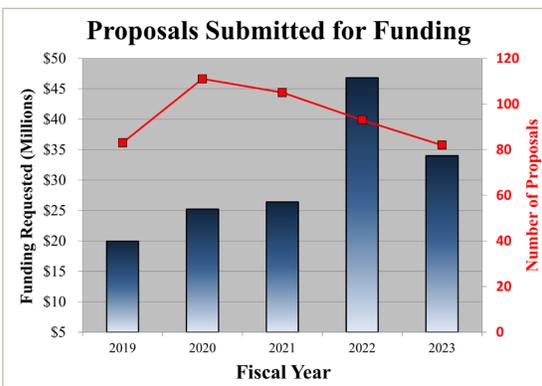
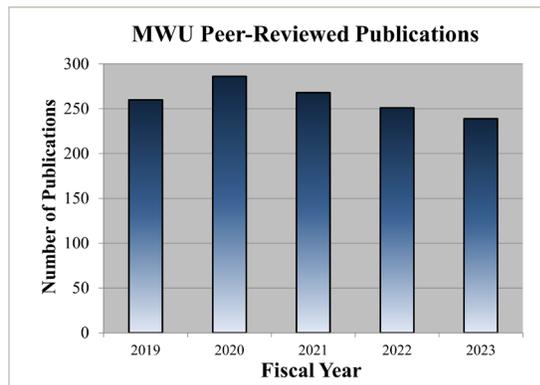
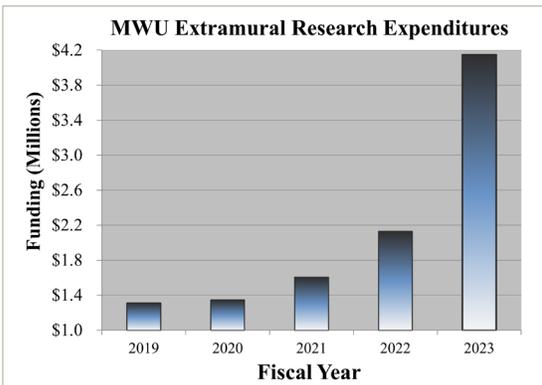
July 1, 2022 - June 30, 2023

Historical Research Support and Activity Data

The Midwestern University (MWU) Annual Research Report demonstrates research achievements of which members of the MWU community should be proud. The graphs below show historical data over the last five years, highlighting the university's research activity and support. THANK YOU to all of MWU's faculty members, research staff and students whose efforts have consistently strengthened MWU's research programs.



James M. Woods, PhD
Assistant Vice President of Research



*Includes intramural funding (grants, fellowships, travel, etc) provided to all MWU colleges and available from the ORSP

IN THIS ISSUE:

- Fast Facts 2-3
- Submitted Proposals 4-9
- Active Awards 10-16
- Publications 17-33
- Intramural Awards 34-38
- Research Support Positions 39
- Capital Research Equipment 39
- Animal *Per Diem* Charges 39
- Recaptured Salary 39
- Support for Students 40
- Joint Appointments 41-42

Fast Research Facts 2022-2023

Support for Faculty Research

- All Midwestern University (MWU) faculty are in 100% “hard money” (university-funded) positions, where they are encouraged but not dependent upon bringing in extramural funding;
- Recaptured Salary Incentive: Faculty who receive grants which support “hard money” salary positions can earn “additional compensation”;
 - § MWU faculty received \$162,212 in such incentives for FY 2023;
- MWU provides “hard money” research technicians for faculty, including 59.4 Full Time Equivalents funded at \$3,576,417 for FY 2023;
- New faculty are provided start-up packages;
- Faculty can request capital research equipment through the university;
 - § MWU purchased \$1,130,821 in capital research equipment during FY 2023;
 - § The Glendale campus received a new confocal microscope in FY 2023;
- Intramural funding is available for faculty who actively seek extramural funding and for students applying for fellowships and travel, including \$1,405,511 awarded in FY 2023.

Support for Student Research

- MWU makes a significant commitment to student research, demonstrated through the awarding of 96 fellowships at a total cost of \$433,500 for research stipends in FY 2023;
- MWU’s Research Days, held on each campus, had a total of 363 abstracts in 2023 where almost all of these were by students engaged in research;
- MWU pays for high-quality poster printing for its students and faculty, including a budget of \$9,848 for printing research posters through the ORSP in FY 2023;
- MWU supports students to travel and present their research data, including up to \$500 of support for first author students who have an abstract accepted at a national meeting.

Funding Success

- MWU’s extramural research expenditures during FY 2023 totaled \$4,147,360;
- MWU faculty have received more than 50 NIH grants, the majority of which have been R15 awards, but also include multiple R01, R21 and R03 awards;
- MWU faculty have successfully obtained FDA, HRSA, NSF, and USDA Grants;
- Foundation Grants: American Heart Association, American Optometric Foundation, HonorHealth, Leakey Foundation, Marfan Foundation, PhRMA Foundation, PetSmart Charities, Arizona Alzheimer’s Consortium, National Assoc. of Chain Drug Stores, Pharmaceutical Research & Manufacturers of America Foundation, Arizona Biomedical Research Commission, etc.;
- For-profit grants: Allegra Therapeutics, Boehringer Ingelheim, Eyenovia, Johnson & Johnson, Merck, Nevakar, Hiossen, Sangart, etc.;

Office of Research & Sponsored Programs (ORSP)

- MWU's ORSP handles both pre-award and post-award grant and contract submissions, including 82 proposals submitted in FY 2023 requesting \$34,021,129;
- MWU's ORSP offers intramural funds to all colleges and the following full time positions to support faculty research:
 - § A Grants Administrator, a Grants Specialist, and a Grants Manager to assist faculty with grant and budget preparation and grant submission;
 - § Research Administrators on each campus to assist MWU's IACUC, IRB, Radiation Safety and Biosafety Committees;
 - § A Manager of Bio/Clinical Statistics and a Data Analyst to assist with data management and statistical needs;
 - § ORSP Associate Directors and Research Compliance Specialists on both campuses to help ensure MWU performs research in a manner compliant with federal, state and MWU regulations;
- For faculty involved in animal research who are seeking extramural funding, the ORSP can waive animal *per diem* charges, including \$244,444 of waived charges in FY 2023;
- In FY 2023, MWU's ORSP offered \$5,250 to support a Research Seminar Series where faculty can bring in experts in their field (departments typically supplement the ORSP honorarium).

Research Facilities

- In 2020 a new vivarium for animal research was opened on the Glendale campus which added 18,500 additional square feet of research space for studying rodents, zebrafish, and finches at a cost of \$9,250,000;
- In 2020, new "dry lab" research space was opened in Dr. Arthur G. Dobbelaere Science Hall at a cost of more than \$1,159,000;
- In 2020 MWU opened a Core Facility on the Glendale campus with the following highlights:
 - § Dedicated labs for histology (550 ft²), microscopy (390 ft²), and cell culture (150 ft²)
 - § Over 25 pieces of high-end, specialized capital research equipment
 - § A full-time Research Specialist to maintain equipment and train and supervise faculty, staff, and student users
 - § Floating software licenses for 3D visualization and analysis of computed tomographic and confocal imagery
 - § Shared equipment that is accessible to faculty, staff, and students free of charge (i.e., no hourly usage rates)

The Bottom Line

- Midwestern University's commitment to building and sustaining a vital research environment is genuine;
- Administrative support for research is very strong, because of a firm belief in the ingenuity of MWU faculty.

ARIZONA COLLEGE OF OSTEOPATHIC MEDICINE (AZCOM) SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Austin, S. & Finch, C.	AZCOM	Integrated Medicine	Emergency Medicine Interest Group Grant	1/30/2023	\$500	Society for Academic Emergency Medicine Foundation	7/1/2023
Carver, C. & Middleton, T.	AZCOM	Family Medicine	Practice Safe Skin: Skin Cancer Awareness and Protection in Arizona	2/7/2023	\$7,000	American Skin Association	5/1/2023
O'Hare, T. & Nydam, R.	AZCOM	Academic Assessment	2022 NBOME C3DO Proposal (Pilot A)	11/9/2022	\$75,000	National Board of Osteopathic Medical Examiners	1/1/2023

Total of AZCOM Submitted Extramural Proposals: \$82,500

CHICAGO COLLEGE OF OPTOMETRY (CCO): SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Quan, A.	CCO	Optometry	The Effects of Noninvasive Brain Stimulation on Visual Cortex Excitability: A Pilot Study	8/15/2022	\$4,000	Beta Sigma Kappa Research Fellowship through the American Academy of Optometry	10/1/2022
Chakraborty, A.	CCO	Optometry	Higher-order Cortical Visual Processing Stimuli: Tools to Assess Brain Function After Concussion	7/18/2022	\$23,592	American Academy of Optometry subcontract from Boston Children's Hospital	1/1/2023

Total of CCO Submitted Extramural Proposals: \$27,592

COLLEGE OF DENTAL MEDICINE-ARIZONA (CDMA): SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Mitchell, J. & Agostini-Walesch, G.	CDMA	Dental Medicine	Oral Inflammation and Functional Gastrointestinal Disorders: A Practice-Based Research Approach	12/15/2022	\$3,663,344	NIH U01 with a subcontract to University of Chicago (\$1,017,628)	9/1/2023
Mitchell, J.	CDMA	Dental Medicine	Uniquely High Conversion and Mechanically Robust Composite Restorative Materials for Functionally Elevated Performance	2/27/2023	\$70,300	NIH R21 subcontract from University of Colorado	9/1/2023
Mitchell, J.	CDMA	Dental Medicine	3D Inkjet Multimaterial Printing Applied to Clinically Functional Dental Prosthetics and Restorations	2/5/2023	\$153,198	NIH R01 subcontract from University of Colorado	9/1/2023

Total of CDMA Submitted Extramural Proposals: \$3,886,842

COLLEGE OF DENTAL MEDICINE-ILLINOIS (CDMI): SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Rocha de Oliveira Carrilho, M.	CDMI	Dental Medicine	Blending Dentin to Dentin: Biomimetic Hydrogels for Dentin Tissue Engineering	2/25/2023	\$421,800	NIH R15	9/1/2023
Williams, L.	CDMI	Dental Medicine	The Senior Series	4/7/2023	\$1,730	Chicago Dental Society	6/1/2023
Sangalli, L.	CDMI	Dental Medicine	Oral Health Education Program in Temporomandibular Disorders	5/28/2023	\$10,000	Illinois State Dental Society Foundation	10/1/2023

Total of CDMI Submitted Extramural Proposals: \$433,530

COLLEGE OF GRADUATE STUDIES (CGS): SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Al-Nakkash, L., Broderick, T., Shim, M.	CGS	Physiology, Biochemistry & Molecular Genetics	Assessing the Effect of Intermittent Fasting on Mice Fed a Western Diet: Mechanisms to Mitigate the Diabetic Phenotype	5/5/2023	\$50,000	Diabetes Action Research and Education Foundation	1/1/2024
Al-Nakkash, L., Broderick, T., Shim, M.	CGS	Physiology, Biochemistry & Molecular Genetics	Involvement of the Brain-Muscle Axis in Western Diet Induced Alzheimer's Pathology	6/1/2023	\$23,250 (includes a \$8,943 match from MWU)	Arizona Alzheimer's Consortium	7/1/2023
Arnouk, H.	CGS	Pathology	Cornulin as a Novel Diagnostic and Prognostic Molecular Biomarker for Oral Squamous Cell Carcinoma Progression	2/25/2023	\$397,576	NIH R15	9/1/2023
Bae, N. & Swanson, M.	CGS	Biochemistry & Molecular Genetics	Assessing the DNA Binding Properties of the Human Telomere Protection Protein RAP1	6/1/2023	\$17,500 (includes a \$6,731 match from MWU)	Arizona Alzheimer's Consortium	7/1/2023
Bussey, K.	CGS	Precision Medicine	Stress Induced Mutagenesis and Diversification: New Directions in the Precancer Atlas for DCIS	4/11/2023	\$522,848	Department of Defense (partnership with Arizona State Univ)	8/1/2023
Day, S.	CGS	Biochemistry & Molecular Genetics	Epigenetic Changes in Type 2 Diabetes Progression Among a Longitudinally Studied Cohort of American Indians	5/17/2023	\$1,552,551	NIH R01 with a subcontract to City of Hope (\$229,926)	4/1/2024
Ellermeier, J.	CGS	Microbiology & Immunology	The Role of Psp and Tat in the Salmonella Response to Periplasmic Stress	2/24/2023	\$421,249	NIH R15	6/1/2023
He, Y.	CGS	Precision Medicine	MicroRNA as a Target for Fetal Hemoglobin Inducing Agents in Sickle Cell Disease	2/24/2023	\$247,218	NIH R00 (change of recipient organization)	4/1/2023
Hnida, J.	CGS	Microbiology & Immunology	PurSUIT: Survey of Coccidia, and Phylogeography of Eimeria vilasi, in Marmotine Squirrels of the Colorado Plateau of Arizona	10/17/2022	\$245,260	NSF	5/31/2026
Hull, E.	CGS	Biomedical Sciences	Elucidating a Mechanistic Link Between Progranulin and Lysosomal Function in Alzheimer Disease	12/15/2022	\$180,000	Arizona Alzheimer's Consortium	7/1/2023
Hull, E. & Leyva, K.	CGS	Biomedical Sciences	Elucidating a mechanistic link between progranulin and lysosomal function in Alzheimer Disease	3/15/2023	\$30,000	Arizona Alzheimer's Consortium	7/1/2023
Hull, E. & Leyva, K.	CGS	Biomedical Sciences	Progranulin Transport & Processing: Implications for Development of New Alzheimer's Therapies	6/1/2023	\$15,000 (includes a \$5,769 match from MWU)	Arizona Alzheimer's Consortium	7/1/2023
Huynh, T.	CGS	Biochemistry & Molecular Genetics	BRC-BIO Chronic Mild Stress Effects on Hippocampal Glucose Neuroenergetics and Antioxidant Capacity	1/10/2023	\$492,820	NSF	12/1/2023
Huynh, T.	CGS	Biochemistry & Molecular Genetics	BRC-BIO Chronic Mild Stress Effects on Hippocampal Glucose Neuroenergetics and Antioxidant Capacity	6/30/2023	\$500,000	NSF	12/1/2023
Jentarra, G. & Jones, T.B.	CGS	Precision Medicine & Anatomy	Evaluation of Regional Differences in Bacterial DNA Presence in the Brain Tissue of Alzheimer's Disease Patients and Controls	6/1/2023	\$61,524 (includes a \$42,125 match from MWU)	Arizona Alzheimer's Consortium	7/1/2023
Kronstad, L.	CGS	Microbiology & Immunology	Improving the Immunogenicity of Influenza mRNA-based Vaccines by Harnessing Natural Killer and Dendritic Cell Cross-talk	6/24/2023	\$421,800	NIH R15	4/1/2024
Martinez-Guryn, K.	CGS	Biomedical Sciences	Intestinal HSP70 Protects Against Diet-induced Obesity Through Modulating Fat and Glucose Metabolism	10/5/2022	\$2,908,827	NIH R01 with subcontracts to Purdue U (\$899,970) and UNC-Charlotte (\$360,815)	7/1/2023

CGS: SUBMITTED EXTRAMURAL PROPOSALS (Continued)

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Martinez-Guryn, K.	CGS	Biomedical Sciences	Probing Short and Long Term Consequences of Small and Large Bowel Microbiota Transplants on Host Physiology: Implications for the Development of Future Live Biotherapeutics	2/5/2023	\$1,123,473	NIH R01 Multi-PI subcontract with the University of Chicago	9/1/2023
Martinez-Pena y Valenzuela, I.	CGS	Physiology	Neuromuscular Synapse Formation and Maturation in Maternal Diet-Induced Obesity	6/25/2023	\$405,488	NIH R15	4/1/2024
Molehin, A.	CGS	Microbiology & Immunology	Antigen and Adjuvant Selection for a Vaccine Against Urogenital Schistosomiasis, HematoShield	3/30/2023	\$168,603	NIH R41 subcontract from PAI Life Sciences, Inc	9/1/2023
Norris, J., Veltri, C., & Kreisler, R.	CGS	Pharmacology	Oral Bioavailability of Doxycycline Monohydrate Compared to Doxycycline Hyclate In Cats	9/15/2022	\$13,673	American Veterinary Medical Foundation	2/1/2023
Olson, C.	CGS	Physiology	Collaborative Research: Behavioral Ecology and Mechanisms of High Frequency Vocalizations in a Tropical Hummingbird	2/28/2023	\$753,537	NSF subcontract from Oregon Health & Science University	9/1/2023
Pierce, M.	CGS	Pharmacology	High-Throughput Evaluation of Marine Natural Products for Neuroactivity, Neurogenesis and Neurotoxicity	6/25/2023	\$385,301	NIH R15	4/1/2024
Prakapenka, A.	CGS	Biomedical Sciences	Age at First Birth Modulates Maternal Age-related Cognitive Decline and Alzheimer's Disease Risk	10/3/2022	\$2,952,116	NIH Katz ESI R01	7/1/2023
Prakapenka, A.	CGS	Biomedical Sciences	Alzheimer's Disease Pathogenesis in Mothers: a Role for Age and Menopause	4/26/2023	\$249,946	Alzheimer's Association	9/1/2023
Prakapenka, A.	CGS	Biomedical Sciences	Age at First Birth Modulates Maternal Age-related Cognitive Decline and Alzheimer's Disease Risk	5/26/2023	\$3,110,003	NIH Katz ESI R01	4/1/2024
Puthanveetil, P.	CGS	Pharmacology	Chrysin mediated systemic protection in obesity induced meta-inflammaging	10/16/2022	\$144,126	NIH R03	7/1/2023
Puthanveetil, P.	CGS	Pharmacology	Apigen Mediated Protection in Mouse Model of Hypercholesterolemia	2/16/2023	\$150,000	NIH R03	9/1/2023
Revoll, A.	CGS	Physiology	Molecular and Anatomical Hallmarks Associated with Intermittent Hypoxia and Aging Insights into Respiratory Dysfunctions Associated with Alzheimer's Disease	3/15/2023	\$30,000	Arizona Alzheimer's Consortium	7/1/2023
Riede, T.	CGS	Physiology	Supplement: The Influence of Vocal Loading Upon the Healing of Experimental Vocal Fold Injury	2/17/2023	\$24,997	NIH R21 Supplement	6/1/2023
Roberts, C.	CGS	Pharmacology	Linkage of EMT and DNA Repair in Cancer: New Therapeutic Opportunities	8/31/2022	\$136,407	Elsa U. Pardee Foundation	11/1/2023
Roberts, C.	CGS	Pharmacology	Linkage of EMT and DNA Repair in Cancer: New Therapeutic Opportunities	9/15/2022	\$100,000	PhRMA Foundation	1/1/2023
Roberts, C.	CGS	Pharmacology	Linking EMT and Responses to DNA Repair Targeted Therapies	1/26/2023	\$75,000	American Association for Research	7/1/2023
Routh, J.	CGS	Pathology	COMPACT: Cost-effective Methylation PCR Assay for Clonal Hematopoiesis Testing	6/16/2023	\$544,130	NIH R21	4/1/2024
Shim, M., Al-Nakkash, L., & Broderick, T.	CGS	Biochemistry & Molecular Genetics, Physiology	Geroscience Approach to Alzheimer's Disease: Mitigation of Cellular Senescence by Intermittent Fasting	6/1/2023	\$21,450 (includes a \$8,249 match from MWU)	Arizona Alzheimer's Consortium	7/1/2023

CGS: SUBMITTED EXTRAMURAL PROPOSALS (Continued)

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Smith, H.	CGS	Anatomy	Improving the Diagnosis of Orthopedic, Shell, and Respiratory Tract Diseases, and Mapping Vascular Anatomy in Captive Tortoises Using CT Scans and Radiography	10/1/2022	\$2,500	Association of Reptile and Amphibian Veterinarians	3/1/2023
Smith, H.	CGS	Anatomy	Recovery of a New Campanian Fossil Turtle Assemblage from the Menefee Formation, New Mexico	1/26/2023	\$1,000	Western Interior Paleontological Society	5/1/2023
Smith, H.	CGS	Anatomy	Insights into Resisting Neuroanatomical Aging from Long-lived Giant Tortoises	3/14/2023	\$29,900	Arizona Alzheimer's Consortium	7/1/2023
Smith, H.	CGS	Anatomy	Evaluation of a New Campanian Fossil Turtle Assemblage from the Menefee Formation of New Mexico, USA	3/1/2022	\$5,096	Paleontology Association	6/1/2022
Stephenson, E.	CGS	Anatomy	Role of Lysine Methyltransferase Activity in the Regulation of Skeletal Muscle Bioenergetics	6/1/2023	\$249,977	Chan Zuckerberg Science Initiative with a subcontract to the Univ of Penn (\$52,963)	12/1/2023
Swanson, M. & Bae, N.	CGS	Biochemistry & Molecular Genetics	Determining the Molecular Mechanism of Activation of γ -Secretase by the Telomere Protein RAP1	6/1/2023	\$21,276 (includes a \$8,184 match from MWU)	Arizona Alzheimer's Consortium	7/1/2023
Swartzendruber, J.	CGS	Microbiology & Immunology	Impact of Histamine Receptor Expression on Th Alpha-driven Immune Responses	10/25/2022	\$448,849	NIH R15	7/1/2023
Swartzendruber, J.	CGS	Microbiology & Immunology	Histamine Receptor Influence on Macrophage Function in Allergic Disease	6/25/2023	\$420,703	NIH R15	4/1/2024
Tiwari, V.	CGS	Microbiology & Immunology	Screening of Symbiotic Bacteria to Identify Small Molecules that Target SARS-CoV-2 Entry	11/16/2022	\$341,000	NIH R21 with a subcontract to Virginia Tech (\$176,000)	7/1/2023
Tiwari, V.	CGS	Microbiology & Immunology	Molecular Mechanism of NPC1-L1 Assisted SARS-coV-2 Cell Entry	6/16/2023	\$100,000	NIH R03	4/1/2024
Tiwari, V.	CGS	Microbiology & Immunology	Screening of Symbiotic Bacteria to Identify Small Molecules that Target SARS-CoV-2 Entry	6/16/2023	\$106,000	NIH R03 with a subcontract to Virginia Tech (\$16,000)	4/1/2024
Wellensiek, B.	CGS	Biomedical Sciences	Enhancement of SARS-CoV 2 Spike Expression from Recombinant Vaccinia Viruses	3/16/2023	\$157,310	NIH R03 with a subcontract to Arizona State University (\$62,800)	9/1/2023

Total of CGS Submitted Extramural Proposals: \$20,809,284

**COLLEGE OF HEALTH SCIENCES-DOWNERS GROVE (CHS-DG):
SUBMITTED EXTRAMURAL PROPOSALS**

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Mahaffey, L.	CHS-DG	Occupational Therapy	Tiered Occupational Therapy (TOT): Preparing OT Scholars to Serve on School Mental Health Teams	6/29/2023	\$1,148,134	Department of Education	1/1/2024
Carroll-Alfano, M.	CHS-DG	Speech Language Pathology	Midwestern Speak Out Therapy Project	3/15/2023	\$1,000	Parkinson Voice Project (Therapy and Research Center Grant)	6/5/2023

Total of CHS-DG Submitted Extramural Proposals: \$1,149,134

**COLLEGE OF HEALTH SCIENCES-GLENDALE (CHS-GD):
SUBMITTED EXTRAMURAL PROPOSALS**

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Black, D.	CHS-GD	Physician Assistants	Oral Health Interdisciplinary Lunch and Learn	1/9/2023	\$988	nccPA Health Foundation	1/9/2023
Brobeck, T. & Wash, E.	CHS-GD	Speech Language Pathology	MWU Parkinson Voice Project Program Development Grant	3/10/2023	\$500	Parkinson Voice Project	4/11/2023
Brobeck, T. & Wash, E.	CHS-GD	Speech Language Pathology	2023 SPEAK OUT! Program Development Grant	3/10/2023	\$50,000	Parkinson Voice Project	4/1/2023
Fissel, S.	CHS-GD	Speech Language Pathology	Translational Adapted Groups: Community Builds Capacity for School SLPs	6/29/2023	\$1,274,578	U.S. Department of Education	11/1/2023

Total of CHS-GD Submitted Extramural Proposals: \$1,326,066

COLLEGE OF PHARMACY (COP): SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Afolabi, T.	CPG	Pharmacy Practice	Infliximab Serum Levels in Pediatric Patients with Inflammatory Bowel Disease during Induction Therapy	10/17/2022	\$558,233	NIH R21 with a subcontract to Phoenix Children's Hospital (\$109,000)	7/1/2023
Briyal, S.	CPDG	Pharmaceutical Sciences	Study of Endothelin B Receptors (ETBR) Agonism in the Brain Regeneration and Function Restoration in Alzheimer's Disease	10/25/2022	\$450,000	NIH R15	7/1/2023
Goodlet, K.	CPG	Pharmacy Practice	Doxycycline for Outpatient Treatment of Nonpurulent Skin & Soft Tissue Infection	7/31/2022	\$8,925	Society of Infectious Diseases Pharmacists	12/1/2022
Pais, G.	CPDG	Pharmaceutical Sciences	Defining the Exposure-response Relationship of Cefepime and its Metabolites in a Rat Model of Cefepime-induced Neurotoxicity	10/16/2022	\$421,660	NIH R21 with a subcontract to the Univ of Florida (\$52,904)	7/1/2023
Scheetz, M.	CPDG	Pharmacy Practice	Elucidating the Temporal Mechanism of Vancomycin Kidney Toxicity as a Means to Prevent Injury	10/16/2022	\$372,988	NIH R21 with a subcontract to Univ of West Attica (\$67,200) and Univ Degli Studi Di Cagliari (\$86,400)	7/1/2023
Scheetz, M.	CPDG	Pharmacy Practice	The Pediatric sEpi induced MODS: Relationship of Immune-phenotypes and antiBiotic Exposures (PRESCRIBE) Study	11/5/2022	\$76,165	NIH R01 subaward from Children's Hospital of Philadelphia	7/1/2023
Scheetz, M.	CPDG	Pharmacy Practice	Developing the Dynamic Toxicity Threshold to Acid Drug Induced Kidney Injury	3/16/2023	\$386,650	NIH R21	9/1/2023
Scheetz, M.	CPDG	Pharmacy Practice	Definitely Addressing the Vancomycin and Piperacillin-tazobactam Combination Therapy and Acute Kidney Injury Clinical Controversy: The VALIDATE Trial	5/2/2023	\$1,185,362	Patient Centered Outcomes Research Institute (PCORI) subcontract from the Univ of Michigan	3/1/2024
Scheetz, M.	CPDG	Pharmacy Practice	Antibacterial Resistance Leadership Group (ARLG)	6/12/2023	\$11,739	NIH UM1 subcontract from Duke Univ	6/1/2023
Rhodes, N.J.	CPDG	Pharmacy Practice	Consensus Recommendations for the Use of Individualized Drug Dosing in Patients Receiving Beta-lactam Antibiotics	11/1/2022	\$2,640	American College of Clinical Pharmacy	11/21/2022
Rhodes, N.J.	CPDG	Pharmacy Practice	Development and Evaluation of CRRT-specific Dosing Models to Optimize Beta-Lactam Treatment for Patients with Hospital-acquired Pneumonia	11/16/2022	\$435,572	NIH R21 with subaward to Northwestern University (\$169,137)	7/1/2023

COP: SUBMITTED EXTRAMURAL PROPOSALS (Continued)

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Vogler, A. & Huang, V.	CPG	Pharmacy Practice	Evaluation the Activity of Omadacycline Against Vancomycin-resistant Enterococci in Simulated Endocardial Vegetations In Vitro Pharmacodynamic Models in High Inoculum	8/22/2022	\$23,000	American College of Clinical Pharmacy Research Institute	12/15/2022
Yao, M. & Elbayoumi, T.	CPG	Pharmaceutical Sciences	Validation of Therapeutic CD47-nanomedicine to Neutralize Pathological Thrombospondin 1 Levels Underlying Acute Vascular Damages Following Renal Ischemia Reperfusion Injury	11/11/2022	\$1,915,136	NIH R01	7/1/2023

Total of COP Submitted Extramural Proposals: \$5,848,070

COLLEGE OF VETERINARY MEDICINE (CVM): SUBMITTED EXTRAMURAL PROPOSALS

Investigator/s	College	Department	Proposal Title	Submitted	Total	Agency	Start Date
Brosnahan, M.	CVM	Veterinary Medicine	Profiling the Oral and Peripheral Blood Immune Status of Horses with and without Equine Odontoclastic Tooth Resorption and Hypercementosis (EORH)	8/1/2022	\$37,256	American Association of Equine Practitioners Foundation	11/1/2022
Chako, C., Lopez, B., Winslow, C., & Ziegler, J.	CVM	Veterinary Medicine	Enhanced Education in Rural Food Animal Practice Dedicated Training for Veterinary Students and Exposure for Native American Youth	3/29/2023	\$235,956	USDA	9/1/2023
Gartrell, C.	CVM	Veterinary Medicine	Animal Health and Disease Research (2023)	10/31/2022	\$11,899	USDA	11/1/2022
Gartrell, C., Wycislo, K., & Ferguson, S.	CVM	Veterinary Medicine	Boehringer Ingelheim Veterinary Scholars Program (2023)	10/31/2022	\$52,000 (includes a \$36,600 match from MWU)	Boehringer Ingelheim	1/1/2023
Kreisler, R., Hefferan, S., & Herendeen, H.	CVM	Veterinary Medicine	The 1000 Canine (1K-9) SARS-CoV-2 Surveillance Study: Exploration of SARS-CoV-2 Exposures and Transmission Pathways Among Different Domestic Canine Populations	1/15/2023	\$121,000	USDA subcontract from TGen	3/3/2023

Total of CVM Submitted Extramural Proposals: \$458,111

MWU SUBMITTED 82 EXTRAMURAL PROPOSALS FROM ALL COLLEGES THROUGH Q4 OF FISCAL YEAR 2022 TOTALING \$34,021,129

**MULTIDISCIPLINARY: ALL EXTRAMURALLY-FUNDED
ACTIVE RESEARCH AWARDS DURING THE REPORTING PERIOD**

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Mitchell, J., Fitzgerald, N., Chen, G. & Wooden, E.	CDMA, AZCOM	Multidisciplinary	An Inch-loss Study Using the NovoPod Photomodulation Bed	\$150,000 (Value of)	Thor Photomedicine	6/1/2018	Open
VandenBrooks, J. (CGS), Quinlan, M. (CGS), Hernandez, J. (CGS), Kreisler, R. (CVM), & Lee, J.K. (CVM)	CGS, CVM	Multidisciplinary	Elucidating the Role of Rhipicephalus sanguineus (the Brown Dog Tick) as a Vector for Rocky Mountain Spotted Fever Transmission in Arizona	\$446,495	Arizona Department of Health Services through the Arizona Biomedical Research Commission	7/1/2021	9/30/2022

Total of Multidisciplinary Active Extramurally-funded Research Awards: \$596,495

**AZCOM: ALL ACTIVE EXTRAMURALLY-FUNDED
RESEARCH AWARDS DURING THE REPORTING PERIOD**

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
O'Hare, T. & Nydam, R.	AZCOM	Academic Assessment	2022 NBOME C3DO Proposal (Pilot A)	\$75,000	National Board of Osteopathic Medical Examiners	1/1/2023	7/31/2023

Total of AZCOM Active Extramurally-funded Research Awards: \$75,000

**AZCOPT: ALL ACTIVE EXTRAMURALLY-FUNDED
RESEARCH AWARDS DURING THE REPORTING PERIOD**

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Esposito, C & Feis, A.	AZCOPT	Optometry	Home Visual Acuity Testing Study (X06)	\$12,750	National Eye Institute Cooperative Agreement with Jaeb Center for Health Research, Inc.	8/1/2021	12/31/2023
Feis, A.	AZCOPT	Optometry	A Randomized Trial to Evaluate Sequential vs Simultaneous Spectacles plus Patching for Amblyopia in Children 3 to <13 Years Old (ATS22)	\$17,400	National Eye Institute Cooperative Agreement with Jaeb Center for Health Research, Inc.	2/26/2021	6/30/2023
Vasudevan, B.	AZCOPT	Optometry	A Multi-center, Double-masked, Randomized, Placebo-controlled, Phase 3 Study of the Safety and Efficacy of Atropine 0.1% and 0.01% Ophthalmic Solutions Administered with a Microdose Dispenser for the Reduction of Pediatric Myopia Progression (The CHAPERONE Study)	\$313,000	Eyenovia	9/1/2019	8/31/2023

Total of AZCOPT Active Extramurally-funded Research Awards: \$343,150

CCO: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Deligio, D.	CCO	Optometry	Clinical Evaluation for a Silicone Hydrogel Daily Wear Monthly Replacement Contact Lens	\$59,638	Alcon	11/16/2022	12/31/2022
Prestwich, C.	CCO	Optometry	A Randomized Trial to Evaluate Sequential vs Simultaneous Spectacles plus Patching for Amblyopia in Children 3 to <13 Years Old (ATS22)	\$23,350	National Eye Institute Cooperative Agreement with JAEB Center for Health Research, Inc.	4/13/2021	12/31/2022
Rice, S.	CCO	Optometry	A Multi-center, Double-masked, Randomized, Placebo-controlled, Phase 3 Study of the Safety and Efficacy of Atropine 0.1% and 0.01% Ophthalmic Solutions Administered with a Microdose Dispenser for the Reduction of Pediatric Myopia Progression (The CHAPERONE Study)	\$313,000	Eyenovia	2/1/2020	1/31/2024

Total of CCO Active Extramurally-funded Research Awards: \$395,988

CDMA: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Mitchell, J., Haering H., Carroll, A., Beals, D., & Carpenter, R.	CDMA	Dental Medicine, Dental Institute	Bicon SHORT® Implants: A Preclinical and Clinical Research Study	\$949,363 (Value of)	Bicon Dental Implants	5/6/2016	Open
Mitchell, J., Schuster, G., Brannock, M. Cohn, M., Carroll, A. & Brachvogel, W.	CDMA	Dental Institute	Anesthesia-free Dentistry?	\$840,000 (Value of)	Convergent Dental	9/30/2017	6/30/2023
Mitchell, J.	CDMA	Dental Institute	The Effects of a One-step Oxidative Etching Process on Cell Differentiation, Proliferation and Attachment Compared to Conventional Micro- and Nano-scale Topography of Titanium Implants	\$5,000	Straumann Holding	12/14/2018	8/31/2022
Mitchell, J.	CDMA	Dental Institute	Comparison Wear Study of Plaque-Buster Toothbrush with Flossing Bristles	\$1,125 (Value of)	TiFinity, LLC	7/6/2021	8/31/2024

Total of CDMA Active Extramurally-funded Research Awards: \$1,795,488

CDMI: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Williams, L.	CDMI	Dental Medicine	The Senior Series	\$1,730	Chicago Dental Society	6/1/2023	9/1/2023

Total of CDMI Active Extramurally-funded Research Awards: \$1,730

CGS: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Al-Nakkash, L., Broderick, T., Shim, M. & Lee, S.	CGS	Physiology, Biochemistry & Molecular Genetics	Western Diet Induced Alzheimer's Pathology: Assessment of the Brain-Gut-Bone Axis	\$28,250 (includes a \$11,408 match from MWU)	Arizona Alzheimer's Consortium	7/1/2022	6/30/2023
Baab, K.	CGS	Anatomy	Testing Adaptive Hypotheses of Plio-Pleistocene Hominin Craniofacial Evolution	\$330,021	National Science Foundation	2/15/2021	1/31/2024
Broderick, T.	CGS	Physiology	Mechanistic Role of Vascular Dysfunction in TBI-mediated Cognitive Dysfunction	\$28,760	Phoenix VA Health Care System	4/15/2021	4/14/2023
Bussey, K.	CGS	Precision Medicine	The Physiological Effects of Stress Hormones on Cancer Phenotypes	\$46,121	Charities Aid Foundation Canada	9/1/2021	9/30/2022
Call, G. & Korch, S.	CGS	Pharmacology	Identifying Probiotics and the Bacterial Genes that Ameliorate Motor Dysfunction in a Drosophila Parkinson's Disease Model	\$16,130 (includes a \$6,452 match from MWU)	Arizona Alzheimer's Consortium	7/1/2022	6/30/2023
Esfandiarei, M.	CGS	Biomedical Sciences	Targeting Endothelial Dysfunction in a Genetic Mouse Model of Aortic Aneurysm: Implications for Prevention and Therapy	\$441,048	NIH R15 with subcontracts to the University of British Columbia (\$54,497) and the University of Arizona (\$27,286)	1/15/2019	12/31/2022
Hernandez, J.	CGS	Biochemistry & Molecular Genetics	Structural Elucidation of a Small Molecular Chelator to Combat Bacterial Infections in Dogs	\$10,800	Morris Animal Foundation	3/1/2022	2/28/2024
Hull, E. & Leyva, K.	CGS	Biomedical Sciences, Microbiology & Immunology	Progranulin & Lysosomal pH: Implications for Potential New Therapeutic Strategy for Neurodegenerative Diseases	\$17,630 (includes a \$7,052 match from MWU)	Arizona Alzheimer's Consortium	7/1/2022	6/30/2023
Jadavji, N.	CGS	Biomedical Sciences	Faculty Job Market Research	\$43,750	Burroughs Weclome Fund	10/15/2021	3/31/2024
Jadavji, N.	CGS	Biomedical Sciences	Identification of Developmental Factors Involved in Ischemic Stroke Outcomes in Adulthood and Old Age	\$152,735	American Heart Association	1/1/2020	12/31/2022
Jentarra, G.	CGS	Precision Medicine	Targeting Fatty Acid Metabolism in Alzheimer's Disease: A Special Interest in Lauric Acid	\$98,252	NIH R21 subcontract from Florida International University	6/1/2021	5/31/2024
Kim, C.	CGS	Biochemistry & Molecular Genetics	Molecular Basis of the Selective Assembly of Functionally Distinct PRC1s	\$450,000	NIH R15	9/22/2022	8/31/2025
Kim, J.E., Leslie, E.	CGS	Anatomy	Mapping Variation in Skeletal Aging with Quantitative Ultrasound Cortical Bone Speed of Sound and Its Potential as a Novel Age-at-Death Estimator	\$20,000	Wenner-Gren Foundation for Anthropological Research	1/1/2023	12/31/2024
Martinez-Guryn, K.	CGS	Biomedical Sciences	The Role of Gut Mycobiota in Regulating Host Lipid Absorption and Obesity	\$471,111	NIH R21 Diversity with subawards to Univ of Wisc (\$137,996) and Univ of Tenn Health Sci Center (\$48,086)	5/1/2022	4/30/2025
Muldoon, K.	CGS	Anatomy	Collaborative Research: Human and Non-human Influences on Species Biodiversity in an Island Ecosystem	\$44,114	National Science Foundation	3/1/2018	2/28/2023
Olson, C.	CGS	Physiology	Vocalizing in a Complex and Crowded Forest: An Investigation of a Unique Hummingbird Solution	\$30,000	National Geographic Society	10/4/2018	12/31/2022
Olson, C.	CGS	Physiology	Supplement: Vocalizing in a Complex and Crowded Forest: An Investigation of a Unique Hummingbird Solution	\$3,501	National Geographic Society	11/1/2020	12/31/2022

CGS: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS (Continued)

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
O'Neill, M.	CGS	Anatomy	Collaborative Research: The Effects of Musculoskeletal Design on Bipedal Walking and Running Performance in Humans, Chimpanzees and Early Hominims	\$239,935	National Science Foundation	3/1/2021	2/29/2024
Revoll, A.	CGS	Physiology	Cholinergic Modulation of XII Motoneurons and XII Premotoneurons	\$447,700	NIH R15	7/20/2020	6/30/2024
Revoll, A.	CGS	Physiology	Effects of Chronic Intermittent Hypoxia on Cholinergic Modulation of Hypoglossal Motoneurons	\$23,000	NIH PRIDE AiRE	1/1/2021	12/31/2022
Riede, T.	CGS	Physiology	Collaborative Research: Evolution of Long-distance Communication in Vocal Rodents	\$193,774	National Science Foundation	8/1/2018	7/31/2023
Riede, T.	CGS	Physiology	The Role of Vocal Ligament in Fundamental Frequency and Adduction Control	\$192,212	NIH R01 subcontract from the University of Utah	1/1/2020	12/31/2024
Riede, T.	CGS	Physiology	The Influence of Vocal Loading Upon the Healing of Experimental Vocal Fold Injury	\$404,500	NIH R21	8/1/2022	7/31/2024
Shim, M.	CGS	Biochemistry & Molecular Genetics	Cyclooxygenase-2 Signaling in Cell Senescence and its Role in Chemotherapy-induced Long-term Adverse Sequelae	\$450,000	NIH R15	12/1/2019	11/30/2023
Shim, M., Al-Nakkash, L. & Broderick, T.	CGS	Biochemistry & Molecular Genetics, Physiology	Geroscience Approach to Alzheimer's Disease: Mitigation of Cellular Senescence by Intermittent Fasting	\$51,640 (includes a \$25,656 match from MWU)	Arizona Alzheimer's Consortium	7/1/2022	6/30/2023
Smith, H.	CGS	Anatomy	Improving the Diagnosis of Orthopedic, Shell, and Respiratory Tract Diseases, and Mapping Vascular Anatomy in Captive Tortoises Using CT Scans and Radiography	\$2,500	Association of Reptile and Amphibian Veterinarians	3/1/2023	2/29/2024
Smith, H.	CGS	Anatomy	Recovery of a New Campanian Fossil Turtle Assemblage from the Menefee Formation, New Mexico	\$1,000	Western Interior Paleontological Society	5/1/2023	4/30/2024
Swanson, M. & Bae, N.	CGS	Biochemistry & Molecular Genetics	The Telomere Protection Protein RAP1 and the Epsilon Isoform of Glial Fibrillary Acidic Protein Activate Gamma-Secretase Activity	\$24,550 (includes a \$9,820 match from MWU)	Arizona Alzheimer's Consortium	7/1/2022	6/30/2023
Townsend, K.E.B.	CGS	Anatomy	Collaborative Research: After the Bridgerian Crash - An Integrated Analysis of Mammalian Paleocommunities and Paleocologies During the Middle Eocene	\$239,596	National Science Foundation with a subcontract (\$20,000) to the Rochester Museum and Science Center	5/15/2020	4/30/2024
Veilleux, C.	CGS	Anatomy	Grasping our Evolutionary Origins: Unraveling the Anatomical and Molecular Adaptations of Primate Touch	\$625,000	NSF with subcontracts to Univ of Calgary (\$146,868) and Oregon Health and Sci Univ (\$30,196)	9/1/2022	8/31/2027
Velez-Cruz, R.	CGS	Biochemistry & Molecular Genetics	The Role of SWI/SNF Chromatin Remodelers in Homologous Recombination and Genome Stability	\$449,330	NIH R15	8/10/2022	7/31/2025

Total of CGS Active Extramurally-funded Research Awards: \$5,576,960

**CHS-DG: ALL ACTIVE EXTRAMURALLY-FUNDED
RESEARCH AWARDS DURING THE REPORTING PERIOD**

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Carroll-Alfano, M.	CHS-DG	Speech Language Pathology	Midwestern Speak Out Therapy Project	\$1,000	Parkinson Voice Project (Therapy and Research Center Grant)	6/5/2023	12/15/2023

Total of CHS-DG Active Extramurally-funded Research Awards: \$1,000

**CHS-GD: ALL ACTIVE EXTRAMURALLY-FUNDED
RESEARCH AWARDS DURING THE REPORTING PERIOD**

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Black, D.	CHS-GD	Physician Assistant	Oral Health Interdisciplinary Lunch and Learn	\$988	nccPA Health Foundation	1/9/2023	8/31/2023
Brobeck, T. & Wash, E.	CHS-GD	Speech-Language Pathology	MWU Parkinson Voice Project Program Development Grant	\$500	Parkinson Voice Project	4/11/2023	3/31/2024
Eikenberry, M.	CHS-GD	Physical Therapy	Patient-adaptive Robotic Balance Training for Lower-extremity Stroke Rehabilitation	\$10,128	Arizona Biomedical Research Center	7/1/2021	6/30/2024
Eikenberry, M.	CHS-GD	Physical Therapy	CAREER: Transparent Robot-aided Rehabilitation (TRAIN)	\$10,221	National Science Foundation Subcontract from Arizona State University	1/1/2021	12/31/2024
O'Neal, S. & Eikenberry, M.	CHS-GD	Physical Therapy	The AMPED Project: Alumni Mentorship for Professional and Educational Development - A Program to Support the First-generation College Student	\$12,550	American Physical Therapy Association	1/1/2022	12/31/2022
Turner, T. & Ayala, P.	CHS-GD	Occupational Therapy	Preparedness of Arizona Physical, Occupational, and Speech Therapy Practitioners for Working with Clients with Alzheimer's Disease and Related Dementias: A Pilot Study	\$11,530 (includes a \$4,612 match from MWU)	Arizona Alzheimer's Consortium	7/1/2022	6/30/2023

Total of CHS-GD Active Extramurally-funded Proposals: \$45,917

COP: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Briyal, S.	CPDG	Pharmaceutical Sciences	Mentor and Train PCCM and NPM Fellows for Scholarly Activities	\$70,000	Advocate Health and Hospitals Corporation	1/1/2023	12/31/2025
Huang, V.	CPG	Pharmacy Practice	A Multicenter Evaluation of Vancomycin-associated Nephrotoxicity in Hospitalized Patients with Acute Bacterial Skin and Skin Structure Infections	\$4,500	Motif BioSciences, Inc	6/1/2018	Open
Huang, V.	CPG	Pharmacy Practice	Shionogi BMD US Surveillance Program	\$6,000	Shionogi & Co, Ltd. through International Health Management Associates	10/20/2020	6/30/2023
Merker, A.	CPDG	Pharmacy Practice	AIDS Education and Training Centers Program	\$10,000	DHHD HRSA, HIV/AIDS Bureau Office of Training & Capacity Development	9/1/2021	8/30/2022
Merker, A.	CPDG	Pharmacy Practice	Illinois SPF Rx Project	\$1,374,677	IL Dept of Health and Human Services, Substance Abuse and Mental Health Administration, Center for Substance Abuse Prevention	9/22/2021	8/31/2026

COP: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS (Continued)

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Rhodes, N.J.	CPDG	Pharmacy Practice	Systems-based Pharmacologic Modelling to Elucidate Beta-lactam Clinical Pharmacodynamics and Define Optimal Dosing Regimens in Severe Pneumonia	\$3,403,378	NIH R01 with subawards to Northwestern University (\$1,121,735) and Children's Hospital of LA (\$325,820)	7/11/2022	6/30/2027
Rhodes, N.J.	CPDG	Pharmacy Practice	Development and Validation of CRRT-specific Beta-lactam Population Pharmacokinetic Models to Guide Treatment for Patients with Hospital-acquired Pneumonia	\$399,991	FDA with a subaward to Northwestern University (\$169,984)	9/30/2022	8/29/2024
Rhodes, N.J.	CPDG	Pharmacy Practice	Consensus Recommendations for the Use of Individualized Drug Dosing in Patients Receiving Beta-lactam Antibiotics	\$2,640	American College of Clinical Pharmacy	2/3/2023	2/3/2024
Rhodes, N.J.	CPDG	Pharmacy Practice	Development and Evaluation of CRRT-specific Beta-lactam Population Pharmacokinetic Models to Guide Treatment for Patients with Hospital-acquired Pneumonia	\$417,308	NIH R21 with subaward to Northwestern University (\$169,137)	6/23/2023	5/31/2025
Rupp, M.T.	CPG	Pharmacy Practice	Diagnosis on the Prescription: Is the Technology Ready?	\$5,000	National Council for Prescription Drug Programs	6/15/2022	12/15/2022
Scheetz, M.	CPDG	Pharmacy Practice	Assessment of MODS and Personalized Exposure of Antibiotics (AMPLE)	\$897,451	NIH R01 Multi-PI with Children's Hospital of Philadelphia	9/22/2021	8/31/2026
Scheetz, M.	CPDG	Pharmacy Practice	Quantifying Renal Injury Among the Most Commonly Used Antibiotic Combinations	\$412,500	NIH R21	1/16/2020	12/31/2022
Scheetz, M.	CPDG	Pharmacy Practice	Patient-oriented Research on <i>Pseudomonas aeruginosa</i>	\$39,760	NIH K24 subaward from Northwestern University	2/22/2020	1/31/2025
Scheetz, M.	CPDG	Pharmacy Practice	Nevakar Compound Analysis	\$140,734	Nevakar	9/9/2020	Open
Scheetz, M.	CPDG	Pharmacy Practice	A Randomized Clinical Trial of Continuous vs. Intermittent Infusion Vancomycin: Effects on Measured GFR and Kidney Injury Biomarkers	\$119,604	NIH R21 Clinical Trial subaward from the University of Kentucky	1/20/2023	12/31/2024
Scheetz, M.	CPDG	Pharmacy Practice	Antibacterial Resistance Leadership Group (ARLG)	\$11,739	NIH UM1 subaward from Duke	6/1/2023	11/30/2023
Scheetz, M.	CPDG	Pharmacy Practice	The Pediatric sEpiS induced MODS: Relationship of Immune-phenotypes and antiBiotic Exposures (PRESCRIBE) Study	\$76,165	NIH R01 subaward from Children's Hospital of Philadelphia	6/19/2023	5/31/2028
Scheetz, M.	CPDG	Pharmacy Practice	Elucidating the Temporal Mechanism of Vancomycin Kidney Toxicity as a Means to Prevent Injury	\$358,876	NIH R21 with foreign subawards to University of West Attica (\$72,576) and Università Degli Studi Di Cagliari (\$93,312)	6/26/2023	5/31/2025
Tran, T.	CPDG	Pharmacy Practice	Bedside Delivery of Discharge Medications to Treat Opioid Use Disorder During Hospitalization	\$30,000	The Portes Foundation	8/1/2021	12/31/2022
Veltri, C.	CPG	Pharmaceutical Sciences	Identification and Characterization of Immunomodulatory Phytochemicals from <i>Mitragyna speciosa</i>	\$30,000	Kumuola, Inc	3/3/2022	3/2/2023
Yao, M. & Elbayoumi, T.	CPG	Pharmaceutical Sciences	Atrial Fibrillation Strategically Focused Research Network: Atrial Substrate in Atrial Fibrillation and AF-associated Brain Disease	\$126,979	American Heart Association subcontract from Northwestern U	7/1/2018	6/30/2023

Total of COP Active Extramurally-funded Research Awards: \$7,937,302

CVM: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
Gartrell, C.	CVM	Veterinary Medicine	Animal Health and Disease Research	\$11,899	USDA	10/1/2022	9/30/2024
Gartrell, C. & Ghasemi, A.	CVM	Veterinary Medicine	Longitudinal Tracking of Outcomes Assessment: Growth Trajectories of Student Academic Success	\$10,000	International Council for Veterinary Assessment	2/1/2021	1/31/2023
Gartrell, C., Wycislo, K., & Ferguson, S.	CVM	Veterinary Medicine	Boehringer Ingelheim Veterinary Scholars Program	\$52,000 (includes a \$36,600 match from MWU)	Boehringer Ingelheim	1/1/2023	12/31/2023
Lopez, B.	CVM	Veterinary Medicine	Host-Pathogen Interaction During Cryptosporidiosis - A Model for Disease Pathogenesis and Discovery of Effective Therapeutics	\$454,012	USDA National Institute of Food and Agriculture with a subcontract (\$27,871) to the University of Georgia	7/1/2021	6/30/2024
Lopez, B., Siler, A. & Starks, D.	CVM	Veterinary Medicine	League of VetaHumanz MWU Chapter: This is How We 'Role'	\$4,500	NIH R25 subcontract from Purdue University	1/1/2021	7/31/2023
Murthy, A. & Li, W.	CVM	Veterinary Medicine	Mechanism(s) of CD8 ⁺ T Cell-mediated Chlamydia-induced Reproductive Pathology	\$450,000	NIH R15	7/1/2019	6/30/2023
Murthy, A. & Lopez, B.	CVM	Veterinary Medicine	USDA Animal Health and Disease Research Grant	\$13,728	USDA National Institute of Food and Agriculture	10/1/2019	9/30/2022
Murthy, A. & Okwumabua, O.	CVM	Veterinary Medicine	USDA Animal Health and Disease Research Grant	\$11,375	USDA National Institute of Food and Agriculture	10/1/2021	9/30/2023
Struthers, J.	CVM	Veterinary Medicine	Optimizing a Patient-specific Larynx Implant for Functional Restoration after Cancer Surgery	\$58,112	NIH R01 subcontract from the Mayo Clinic	9/1/2021	8/31/2026

Total of CVM Active Extramurally-funded Proposals: \$1,065,626

CRS: ALL ACTIVE EXTRAMURALLY-FUNDED RESEARCH AWARDS DURING THE REPORTING PERIOD

Investigator/s	College	Department	Proposal Title	Total	Agency	Start Date	End Date
VanDenBerg, C.	n/a	Abrazo Arizona Heart Hospital	Medical Device Study in Patients with Cardiovascular Disease	\$177,116	Medical Device Sponsor with a subcontract (\$23,355) to Abrazo Hospitals and Consultant Costs of \$21,000	11/1/2018	Open
VanDenBerg, C.	n/a	Clinical Research Services	Multiplexed In-solution Serological Test for SARS-CoV-2, Human Coronaviruses and Other Respiratory Pathogens	\$703,771	Leidos Biomedical Research, LLC (NIH) subcontract from Arizona State University	10/01/2020	09/30/2025

Total of CRS Active Extramurally-funded Research Awards: \$880,887

Proposals included are defined as active grants based on end dates reported to the ORSP on the Principal Investigator's Proposal Approval Form plus any granted no-cost extension or contract addendum.

Total MWU Active Extramurally-funded Research Awards: \$18,715,543

Alia A (CGS), Gao F (CDMI), Mitchell JC (CDMI), Gasiorowski J (CGS), Ciancio M (CGS), Kuppast B (COP), Pfeifer C, & Carrilho MR (CDMI). (2023) Dentin primer based on a highly functionalized gelatin-methacryloyl hydrogel. *Dental Materials: Official Publication of the Academy of Dental Materials* 39(2):192-203.

Al-Nakkash L (CGS), Mason D (AZCOM), Ismail N (AZCOM), Bowman T (AZCOM), Ahlert J (AZCOM), Rubin M (AZCOM), Smith E (CVM), Rosander A (AZCOM), & Broderick TL (CGS). (2022) Exercise training prevents the loss of wall thickness and lowers expression of Alzheimer's related proteins in 3xTg mouse jejunum. *International Journal of Environmental Research and Public Health* 19(21):14164.

Anasi A (AZCOM) & Soby SD (CGS). (2022) Draft genome sequences of *Pseudomonas* sp. strains MWU12-2037 and MWU12-2345, isolated from peat and sandy bog soils in the Cape Cod National Seashore, Massachusetts. *Microbiology Resource Announcements* 11(8):e0053622.

Avedissian SN, Pais GM (COP), Pham M, Liu J, Chang J (COP), Hlukhenka K, Prozialeck WC (CGS), Griffin B (COP), Gulati A (COP), Joshi MD (COP), Mu Y, & Scheetz MH (COP). (2022) Vancomycin pharmacokinetics in a pregnancy rat model. *Antimicrobial Agents and Chemotherapy* 66(5):e0005622.

Baylow HE, Esfandiarei M (CGS), & Ratiu I (CHS). (2022) Voice symptoms and quality of life in individuals with Marfan Syndrome: A cross-sectional study. *Journal of Voice: Official Journal of the Voice Foundation* S0892-1997(22):00107-2.

Beltran RA (AZCOM), Zemeir KJ (AZCOM), Kimberling CR (CGS), Kneer MS (CGS), Mifflin MD (AZCOM), & Broderick TL (CGS). (2022) Is a PCSK9 inhibitor right for your patient? A review of treatment data for individualized therapy. *International Journal of Environmental Research and Public Health* 19(24):16899.

Bolte KN (AZCOM), Wealing JC (AZCOM), & Revill AL (CGS). (2023) Arginine vasopressin potentiates inspiratory bursting in hypoglossal motoneurons of neonatal mice. *Respiratory Physiology & Neurobiology* 314:104087.

Brigando G (CDMI), Sutton C (CHS), Uebelhor O (CHS), Pitsoulakis N (CHS), Pytynia M (CGS), Dillon T (CHS), Elliott-Burke T (CHS), Hubert N, Martinez-Guryn K (CGS), Bolch C (ORSP), Ciancio MJ (CGS), & Evans CC (CHS). (2023) The microbiome of an outpatient rehabilitation clinic and predictors of contamination: A pilot study. *PLoS ONE* 18(5):e0281299.

Bunker J, Bashir M, Bailey S, Boodram P, Perry A, Delaney R, Tsachaki M, Sprecher SG, Nelson E (AZCOM), Call GB (CGS), & Rister J. (2023) Blimp-1/PRDM1 and Hr3/ROR β specify the blue-sensitive photoreceptor subtype in *Drosophila* by repressing the hippo pathway. *Frontiers in Cell and Developmental Biology* 11:1058961.

Cochran C (CCOM), Martin K (CCOM), Rafferty D (CCOM), Choi J (CCOM), Leontyev A (AZCOM), Shetty A (AZCOM), Kurup S, & Puthanveetil P (CGS). (2023) Untargeted metabolomics based prediction of therapeutic potential for apigenin and chrysin. *International Journal of Molecular Sciences* 24(4):4066.

De La Torre R A (AZCOM), Kerdjoudj M (CCOM), & Arnouk H (CGS). (2023) DJ-1 Oncogene as a potential diagnostic and prognostic biomarker for head and neck cancer. *Cureus Journal of Medical Science* 15(3):e36229.

Drinkwater K (AZCOM), Anderson B (AZCOM), Seangmany N (AZCOM), Hampel D (AZCOM), Mody A (CGS), & Shim M (CGS). (2022) Interleukin-11 (IL11) inhibits myogenic differentiation of C2C12 cells through activation of extracellular signal-regulated kinase (ERK). *Cellular Signalling* 101:110509.

Fornaro M (CGS), Dipollina C (CCOM), Giambalvo D (CCOM), Garcia R (AZCOM), Sigerson C (CCOM), Sharthiya H (CGS), Liu C, Nealey PF, Kristjansdottir K (CGS), Gasiorowski JZ (CGS). (2022) Submicron topographically patterned 3D substrates enhance directional axon outgrowth of dorsal root ganglia cultured ex vivo. *Biomolecules* 12(8):1059.

Geevarghese M (CCOM), **Patel K**, **Gulati A** (COP), & **Ranjan AK** (COP). (2023) Role of adrenergic receptors in shock. *Frontiers in Physiology* 14:1094591.

Harvey AG (CGS), **Graves AM** (CGS), **Uppalapati CK** (CGS), **Matthews SM** (CGS), **Rosenberg S** (AZCOM), **Parent EG** (AZCOM), **Fagerlie MH** (AZCOM), **Guinan J** (CVM), **Lopez BS** (CVM), & **Kronstad LM** (CGS). (2022) Dendritic cell-natural killer cell cross-talk modulates T cell activation in response to Influenza A viral infection. *Frontiers in Immunology* 13:1006998.

Houlihan, KL (CGS), **Keoseyan PP** (AZCOM), **Juba AN** (CGS), **Margaryan T**, **Voss ME** (AZCOM), **Babaoghli AM** (AZCOM), **Norris JM** (AZCOM), **Adrian GJ** (AZCOM), **Tovmasyan A**, & **Buhlman LM** (CGS). (2022) Folic acid improves parkin-null *Drosophila* phenotypes and transiently reduces vulnerable dopaminergic neuron mitochondrial hydrogen peroxide levels and glutathione redox equilibrium. *Antioxidants (Basel, Switzerland)* 11(10):2068.

Jaffey JA (CVM), **Okwumabua O** (CVM), **Graves TK** (CVM), **Al-Nakkash L** (CGS), **Monasky R** (CVM), **Wilson A** (CVM), & **Thangamani S** (CVM). (2022) Evaluation of *Candida* spp. and other fungi in feces from dogs with naturally occurring diabetes mellitus. *Veterinary Sciences* 9(10):567.

Kaufman S (CGS), **Chang P** (CDMI), **Pendleton E** (CGS), & **Chandar N** (CGS). (2023) MicroRNA26a overexpression hastens osteoblast differentiation capacity in dental stem cells. *Cellular Reprogramming* 25(3):109–120.

Karumuri R (CCOM), **Shah D** (CCOM), & **Arnouk H** (CGS). (2022) Cornulin as a potential novel biomarker for cutaneous squamous cell carcinoma. *Cureus Journal of Medical Science* 14(11):e31694.

Karumuri R (CCOM), **Shah D** (CCOM), & **Arnouk H** (CGS). Cornulin as a prognosticator for lymph node involvement in cutaneous squamous cell carcinoma. *Cureus Journal of Medical Science* 14(12):e33130.

Kelley C (CCOM), **Vander Molen J** (CCOM), **Choi J** (CCOM), **Bhai S** (CCOM), **Martin K** (CCOM), **Cochran C** (CCOM), & **Puthanveetil P** (CGS). (2022) Impact of glucocorticoids on cardiovascular system-the yin yang effect. *Journal of Personalized Medicine* 12(11):1829.

Kerdjoudj M (CCOM) and **Arnouk H** (CGS). (2022) Characterization of cornulin as a molecular biomarker for the progression of oral squamous cell carcinoma. *Cureus Journal of Medical Science* 14(12):e32210.

Kerdjoudj M (CCOM), **De La Torre R A** (AZCOM), & **Arnouk H** (CGS). (2023) Characterization of DJ-1, PTEN, and p-Akt as prognostic biomarkers in the progression of oral squamous cell carcinoma. *Cureus Journal of Medical Science* 15(1):e34436.

Kern J (AZCOM), **Scarpulla M** (AZCOM), **Finch C** (AZCOM), **Martini W**, **Bolch CA** (ORSP), & **Al-Nakkash L** (CGS). (2022) The assessment of point-of-care-ultrasound (POCUS) in acute care settings is benefitted by early medical school integration and fellowship training. *Journal of Osteopathic Medicine* September 20:epub ahead of print.

Khan S (CCOM), **Walters R** & **Arnouk H** (CGS). (2023) Fine-needle aspiration cytopathology as a valuable tool in the pathologist's toolbox. In **Arnouk H** (Ed.) *Advances in Fine needle Aspiration Cytopathology* (pp.1-8). London, United Kingdom: IntechOpen.

Kooner A (AZCOM) & **Soby SD** (CGS). (2022) Draft genome sequence of *Curtobacterium* sp. strain MWU13-2055 isolated from a wild cranberry fruit surface in Massachusetts, USA. *Microbiology Resource Announcements* 11(10):e00565-22.

Kreisler RE (CVM), **MacDonald LJ** (CVM), **Mensing RN** (CVM), **Hoffmann ER** (CVM), **Keary CG** (CVM), **Padilla KN** (CVM), & **Norris JW** (CGS). (2023) Effects of peripheral active warming and passive insulation on core body temperature during feline ovariohysterectomy: A multi-arm randomized clinical trial. *Journal of Feline Medicine and Surgery* 25(3):1098612X231157585.

Mannet BT (AZCOM), **Capt BC** (AZCOM), **Pearman K** (CGS), **Buhlman LB** (CGS), **VandenBrooks JM** (CGS), & **Call GB** (CGS). (2022) Nicotine has a therapeutic window of effectiveness in a *Drosophila melanogaster* model of Parkinson's Disease. *Parkinson's Disease* 2022:9291077.

Mayer AMS (CGS), **Pierce ML** (CGS), **Howe K** (COP), **Rodríguez AD**, **Taglialatela-Scafati O**, **Nakamura F**, & **Fusetani N**. (2022) Marine pharmacology in 2018: Marine compounds with antibacterial, antidiabetic, antifungal, anti-inflammatory, antiprotozoal, antituberculosis and antiviral activities; affecting the immune and nervous systems, and other miscellaneous mechanisms of action. *Pharmacological Research* 183(2002):106391.

Mills DA (CDMA), **Chu AS** (CDMA), **Burns A** (COP), **Hoover EB** (CHS-GD), **Wild J** (CHS-GD), **Post G** (CHS-GD), **Sears R** (CHS-GD), **Herrick A** (CHS-GD), **Black D** (CHS-GD), **Roberts EP** (CDMA), & **Roberts BS** (CDMA). (2023) Dental bite-sized bits: A module for teaching common oral health conditions to multidisciplinary students. *Medical Science Educator* February 24:epub ahead of print.

Misch M (CCOM) & **Puthanveetil P** (CGS). (2022) The head-to-toe hormone: Leptin as an extensive modulator of physiologic systems. *International Journal of Molecular Sciences* 23(10):5439.

O'Hara-Hanley K (AZCOM), **Harrison A** (CGS), & **Soby SD** (CGS). *Chromobacterium alticapitis* sp. nov. and *Chromobacterium sinusclupearum* sp. nov. isolated from wild cranberry bogs in the Cape Cod National Seashore, USA. *International Journal of Systematic and Evolutionary Microbiology* 72(6).

Pais GM (COP), **Chang J** (COP), **Barreto EF**, **Stitt G**, **Downes KJ**, **Alshaer MH**, **Lesnicki E** (CGS), **Panchal V** (CCOM), **Bruzzone M**, **Bumanglag AV**, **Burke SN**, & **Scheetz MH** (COP). (2022) Clinical pharmacokinetics and pharmacodynamics of cefepime. *Clinical Pharmacokinetics* 61(7):929–953.

Papp N (COP), **Panicker J** (CCOM), **Rubino J** (COP), **Pais G** (COP), **Czechowicz A** (COP), **Prozialeck W** (CGS), **Griffin B** (COP), **Weissig V** (COP), **Scheetz M** (COP), & **Joshi M** (COP). (2022) In vitro nephrotoxicity and permeation of vancomycin loaded liposomes. *Pharmaceutics* 14(6):1153.

Patel NT (AZCOM) & **Smith HF** (CGS). (2023) Clinically relevant anatomical variations in the brachial plexus. *Diagnostics* 2023(13):830.

Plotkin BJ (CGS), **Sigar IM** (CGS), **Kaminski A** (CGS), **Borrelli A** (CCOM), **Zheng V** (CCOM), **Schileru N** (CCOM), & **Siaj B** (CDMI). (2023) Method for the growth of Herpes Simplex Virus (HSV-1 and HSV-2) in an oxygen-free environment. *World Journal of Advanced Research and Reviews* 18(01):808–814.

Poole J (AZCOM), **Jasbi J**, **Pascual AS** (CGS), **North S** (AZCOM), **Kwatra N** (CDMA), **Weissig V** (CGS), **Gu H**, **Bottiglieri T**, **Jadavji NM** (CGS). Ischemic stroke and dietary vitamin B12 deficiency in old-aged females impaired motor function, increased ischemic damage size, and changed metabolite profiles in brain and cecum tissue. *Nutrients* 14(14):2960.

Porta M (CGS), **Boening A** (CGS), **Tiemann J** (CCOM), **Zack A** (CCOM), **Patel A** (CCOM), & **Sondgeroth K** (CGS). (2023) The contractile response to oxytocin in non-pregnant rat uteri is modified after the first pregnancy. *Reproductive Sciences (Thousand Oaks, Calif.)* 10.1007/s43032-023-01163-6.

Prozialeck W (CGS), **Fowler A** (CCOM), & **Edwards J** (CGS). (2022) Public health implications and possible sources of lead (Pb) as a contaminant of poorly regulated kratom products in the United States. *Toxics* 10(398):1-11.

Pulford CS (AZCOM), **Uppalapati CK** (CGS), **Montgomery MR**, **Averitte RL**, **Hull EE** (CGS), & **Leyva KJ** (CGS). (2022). A hybrid epithelial to mesenchymal transition in ex vivo cutaneous squamous cell carcinoma tissues. *International Journal of Molecular Sciences* 23(16):9183.

Sadek M (CGS), **Sheth A** (CCOM), **Zimmerman G** (CCOM), **Hays E** (CGS), & **Vélez-Cruz R** (CGS). (2022) The Role of SWI/SNF Chromatin remodelers in the repair of DNA double strand breaks and cancer therapy. *Frontiers in Cell and Developmental Biology*, 10:1071786.

PEER-REVIEWED PUBLICATIONS - MULTI-COLLEGE COLLABORATIONS (Continued)

Sangalli L (CDMI), **Alabsy M** (CDMI), **Lingle D** (CHS), **Khazaal N** (CGS), **West-Pelak E** (CDMI), & **Mitchell JC** (CDMI). (2023) Hand joint hypermobility among dental students—a cross-sectional study. *Applied Sciences* 13(12):7158.

Shin JHS (AZCOM) and **Yao M** (COP). (2022) Insight into the current pharmacological treatment and clinical trials for systemic sclerosis-secondary Raynaud's Phenomenon vs. primary Raynaud's Disease. *Current Trends in Pharmacology and Clinical Trials* 5(3):180053.

Tambeaux A, Aguilar-Sánchez Y, Santiago DJ, **Mascitti M** (CCOM), **DiNovo KM** (CGS), **Mejía-Alvarez R** (CGS), Fill M, Wayne Chen SR, & Ramos-Franco J. (2023) Ligand sensitivity of type-1 inositol 1,4,5-trisphosphate receptor is enhanced by the D2594K mutation. *Pflugers Archive: European Journal of Physiology* 475 (5): 569-581.

Untiveros G (CGS), **Raskind A** (CCOM), **Linares L** (CGS), **Dotti A** (CCOM), & **Strizzi L** (CGS). (2022) Netrin-1 stimulates migration of neogenin expressing aggressive melanoma cells. *International Journal of Molecular Sciences* 23(21):12751.

Virdi S (AZCOM) & **Jadavji NM** (CGS). (2022) The impact of maternal folates on brain development and function after birth. *Metabolites* 12(9):876.

Vishwanath V (AZCOM), **Favo CL** (AZCOM), **Tu TH** (AZCOM), **Anderson B** (AZCOM), **Erickson C** (AZCOM), **Scarpulla M** (AZCOM), **Kern J** (AZCOM), **DeWinter L** (AZCOM), **Gawelko A** (AZCOM), **Bolch C** (ORSP), & **Al-Nakkash L** (CGS). (2022) Effects of face masks on oxygen saturation at graded exercise intensities. *Journal of Osteopathic Medicine* October 15:epub ahead of print.

Yaeger J (AZCOM) & **Soby SD** (CGS). (2022) Draft genome sequence of *Pseudomonas* sp. strain MWU13-2517, isolated from a wild cranberry bog in Provincetown, MA. *Microbiology Resource Announcements* 11(8):e0054522.

Yum G (CCO) & **Arnouk H** (CGS). (2022) Soft tissue tumors of the eye. In Arnouk H (Ed.) *Advances in Soft Tissue Tumors*. (pp.1-8). London, United Kingdom: IntechOpen.

PEER-REVIEWED PUBLICATIONS - AZCOM

Dominick M, Houchins N, Venugopal V, Zuberi AR, Lutz CM, Meechooveet B, Van Keuren-Jensen K, Bowser R, & Medina DX. (2023) MATR3 P154S knock-in mice do not exhibit motor, muscle or neuropathologic features of ALS. *Biochemical and Biophysical Research Communications* 645:164-172.

Kern J, **Scarpulla M**, **Finch C**, Martini W, **Bolch CA**, & **Al-Nakkash L**. (2022) The assessment of point-of-care-ultrasound (POCUS) in acute care settings is benefitted by early medical school integration and fellowship training. *Journal of Osteopathic Medicine* 123(2):65–72.

Phan T, Bennett J, & **Patten T**. (2023) Practical understanding of cancer model identifiability in clinical applications. *Life* (Basel, Switzerland) 13(2):410.

Young PJ, Kagetsu NJ, Tomblinson CM, Snyder EJ, Church AL, Mercado CL, Guzman Perez-Carrillo GJ, Jha P, Guerrero-Calderon JD, Jaswal S, Khosa F, & Deitte LA. (2023) The intersection of diversity and well-being. *Academic Radiology* February 20:epub ahead of print.

PEER-REVIEWED PUBLICATIONS - AZCOPT

Jiang DD, Chen J, Thorn F, Mao GY, Li CC, Lin Z, **Vasudevan B**, Huang XQ, Chen YY. (2022) Elementary school comprehensive intervention and myopia development: The Wenzhou Epidemiology of Refraction Error Study. *International Journal of Ophthalmology* 15(8):1363-1369.

Lorenzana IJ, Leske DA, Hatt SR, Dean TW, Jenewein EC, Dagi LR, Beal CJ, Pang Y, Retnasothie DV, **Esposito CA**, Erzurum SA, Aldrich AE, Crouch ER, Li Z, Kraker RT, Holmes JM, & Cotter SA, Pediatric Eye Disease Investigator Group, & Pediatric Eye Disease Investigator Group (2022) Relationships among clinical factors and patient-reported outcome measures in adults with convergence insufficiency. *Optometry and Vision Science: Official Publication of the American Academy of Optometry* 99(9):692–701.

PEER-REVIEWED PUBLICATIONS - CPM

Jenkins DW, Page J, Wissman L, Stein A, Rowe B, Rowe F. (2022) Rock climbing shoes: A survey of attitudes and practices. *Journal of the American Podiatric Medical Association* 112(3):1-19.

PEER-REVIEWED PUBLICATIONS - CCO

Chen X, **Hall K**, Bobier WR, Thompson B, **Chakraborty A**. (2022) Transcranial random noise stimulation and exercise do not modulate ocular dominance plasticity in adults with normal vision. *Journal of Vision* 22(10):14.

Silva AE, Harding JE, **Chakraborty A**, Dai DW, Gamble GD, McKinlay CJD, Nivins S, Shah R, Thompson B, & Children with Hypoglycemia and their Later Development (CHYLD) Study Team. (2023) Associations between autism spectrum quotient and integration of visual stimuli in 9-year-old children: Preliminary evidence of sex differences. *Journal of Autism and Developmental Disorders* June 21:epub ahead of print.

Wright P. (2023) Managing low vision in an aging population. *Optometry Times Journal* 15(1).

PEER-REVIEWED PUBLICATIONS - CCOM

Akram W, Singh L, Shah S, **Hussain S**, Shah V, Hussain A, Ijaz HM, & Rahim M. (2023) A rare presentation of congenital Chilaiditi Syndrome: Symptomatic hepatobowel entrapment. *Cureus* 15(1):e33714.

Aungaroon G, **Mehta A**, Horn PS, & Franz DN. (2023) Stiripentol for drug-resistant epilepsy treatment in tuberous sclerosis complex. *Pediatric Neurology* 139:86–92.

Buczowski A, Craig W, **Holmes R**, Allen D, Longnecker L, Kondrad M, Carr A, Turchi R, Gage S, Osorio SN, Cooperberg D, Mallory L, & IMPACT Study Group. (2023) Factors correlated with successful pediatric post-discharge phone call attempt and connection. *Hospital Pediatrics* 13(1):47–54.

Coddington N, Higgins M, **Mian A**, & Flynn B. (2022) Non-transecting urethroplasty for bulbar urethral strictures—narrative review and treatment algorithm. *Journal of Clinical Medicine* 11(23):7033.

Elgazzar A, **Chaudhary A**, & Klosterman L. (2022) Catheter-directed retrieval of an infected fragment in a Vietnam war veteran. *Federal Practitioner: for the Health Care Professionals of the VA, DoD, and PHS* 39(9):372–375.

Jain S, **Dhaon SR**, Majmudar S, Zimmermann L, Mordell L, Walker G, Wallia A, Akbaria H, Khan A, Bloomgarden E, Arora V. Empowering healthcare workers on social media to bolster trust in science and vaccination during the pandemic: Making IMPACT using a place-based approach. (2022) *Journal of Medical Internet Research* July 13:epub ahead of print.

- Lipov E, **Sethi Z**, Nandra G, & Frueh C. (2023) Efficacy of combined subanesthetic ketamine infusion and cervical sympathetic blockade as a symptomatic treatment of PTSD/TBI in a special forces patient with a 1-year follow-up: A case report. *Heliyon* 9(4):e14891.
- Makadia F, **Roskam J**, & Williams RD. (2022) To sell or not to sell: Considerations when evaluating private equity acquisitions. *Current Opinion in Ophthalmology* 33(5):385–388.
- Markus N**, Ross AB, & Martin-Carreras TT. (2022) Congenital absence of the bilateral long heads of the biceps brachii tendons in a patient with Silver-Russell Syndrome. *Radiology Case Reports* 18(3):762–765.
- Marriott T, **Fakhoury O**, Mufarreh NA, Pedre M, Cox Z, & Zats S. (2022) Subchondroplasty - a viable treatment option for transient bone marrow edema syndrome of the navicular in an adolescent: A case report. *Journal of Orthopedic Case Reports* 12(12):100–104.
- Mian A**, Wei J, Shi Z, Rifkin AS, Zheng SL, Glaser AP, Kearns JT, Helfand BT, & Xu J. (2022) Systematic review of reported association studies of monogenic genes and bladder cancer risk and confirmation analysis in a large population cohort. *BJUI Compass* 4(2):156–163.
- Morrison T, Foster E, **Dougherty J**, & Barton J. (2022) Shared decision making in rheumatology: A scoping review. *Seminars in Arthritis and Rheumatism* 56:152041.
- Muellers KA, Soukas C, **Zeidman R**, Pantaleon K, Harris YT, Wisnivesky JP, & Lin JJ. (2023) Cancer beliefs and diet self-management among cancer survivors with comorbid diabetes. *Journal of Cancer Survivorship: Research and Practice* 10.1007/s11764-023-01340-1.
- Musallam B**, & Romano V. (2022) A unique patellar tendon rupture and small tibial avulsion fracture in a post-menopausal patient. *Journal of Orthopedic Case Reports* 12(12):16–20.
- Park S, Ma Z, Zarkada G, Papangelis I, **Paluri S**, Nazo N, Rivera-Molina F, Toomre D, Rajagopal S, & Chun HJ. (2022) Endothelial β -arrestins regulate mechanotransduction by the type II bone morphogenetic protein receptor in primary cilia. *Pulmonary Circulation* 12(4):e12167.
- Rajendran A, Reddy AJ, **Bisaga K**, Sommer DA, Prakash N, Pokala VT, Yu Z, Bachir M, Nawathey N, Brahmabhatt T, & Patel R. (2023) A systematic review of the usage of rotigotine during early and advanced stage Parkinson's. *Cureus* 15(3):e36211.
- Randhawa N, **Shah M**, & Spyrtos T. (2022) The pain of staying alert: A case report and literature review on energy drink-induced acute pancreatitis. *Journal of investigative medicine high impact case reports* 10:23247096221104468.
- Sherwani Z, **Kelley C**, Farooq H, & Garbis NG. (2022) Delayed surgical repair of the deltoid following acromioplasty: A case report. *Clinics in Shoulder and Elbow* May 2:epub ahead of print.
- Tyagi R, **Ahmed SS**, Koethe Y, Raskind A, & Ahmed O. (2022) Genicular artery embolization for primary knee osteoarthritis. *Seminars in interventional radiology* 39(2):125–129.
- Urban MJ, **Wojcik C**, Losenegger T, Hammond R, Barry S, Jagasia A, Filpo W, & Jagasia AJ. (2022) Incorporating hearing screening to an otolaryngology surgical mission in the rural Dominican Republic. *International Journal of Pediatric Otorhinolaryngology* 160:111222.
- Whitney E, Kiessling JW, Reier L, **Hamann K**, Arshad M, Ramnot A, & Fowler J. (2022) Non-traumatic Spontaneous paraplegia secondary to thoracic disc herniations in the setting of tobacco abuse and COVID-19: A case report and literature review. *Cureus* 14(11):e31544.

PEER-REVIEWED PUBLICATIONS - CDMA

- Barber HD, Walesch GA, Williamson J, Oxford M, Nix MB, & Ericson K.** (2023) Survey of dual degree oral and maxillofacial surgeons: A review of their decision to pursue a medical degree as part of their oral and maxillofacial surgery training. *Research Reports in Oral and Maxillofacial Surgery* 7:072.
- Beals D, Leon A, Barber D, Francis J, Siu T, Hanson J.** (2023) Novel use of a piezo electric device for retrieval of a third molar root from the floor of the mouth: A case report. *Oral and Maxillofacial Surgery Cases* 9(2):100317.
- Chu Fountain A & Mills DA.** (2022) Retraction cord packing: More than just on-the-job training? *Journal of Dental Education*. June 20:epub ahead of print.
- Cianciola JA & Benjamin SD.** (2022) The basics of photobiomodulation: Using light energy as a therapeutic modality. *Inside Dentistry*. July 2022.
- Madern AL, Anderson NK, Colosi D, & Mahdian M.** (2022) The Relationship Between Diabetes and Carotid artery calcifications detected via dental cone-beam computed tomography in patients undergoing implant treatment planning. *Journal of the American Dental Association* 153(9):878-883.
- Mills DA, Fountain AC, & Velazquez D.** (2023) Cord placement model: An instructional guide for preclinical dental students to practice the skill of retraction cord placement. *MedEdPORTAL: The Journal of Teaching and Learning Resources* 19:11303.
- Roberts BS, Roberts EP, & Dixon VF.** (2022) Oral health implications of a patient with albinism and bilateral maxillary paramolars. *The Journal of Multidisciplinary Care Decisions in Dentistry* 8(9)14-16.
- Roberts E, Schuster GM, Haub S.** (2022) Case report: spongiotic gingivitis in an adult male treated with novel 9300nm CO₂ laser low energy ablation. *Journal of the American Dental Association* 153(1):64-70.
- Schuster GM, Cohn M, Agostini-Walesch G, Carroll A, & Mitchell JC.** (2022) patient and clinician experiences when using a CO₂ laser for cavity preparations: Lessons learned from prospective clinical Research. *Applied Sciences* 12:4800.
- Schuster GM & Roberts EP.** (2022) The clinical impact of 9300-nm CO₂ Laser Low-Energy Ablation therapy on oral lichen planus: A case report. *Journal of Laser Dentistry* 26(1):111-112.
- Schuster G, Roberts E, & Tarpey H.** (2022) Low energy laser ablation therapy for hairy tongue. *Decisions in Dentistry* 8(12):30-33.
- Schuster G, Roberts E, & Tarpey H.** (2023) A novel approach to treating hairy tongue. *Dimensions of Dental Hygiene* 21(1):42-45.
- Siu TL, Beals DW, Francis JR, & Parashar VP.** (2023) Diagnosing oral granulomatous lesions: A case report. *Compendium of Continuing Education in Dentistry (Jamesburg, N.J.: 1995)* 44(2):88-91.

PEER-REVIEWED PUBLICATIONS - CDMI

- Carrilho MR & Bretz W.** (2023) Red marine algae *Lithothamnion calcareum* supports dental enamel mineralization. *Marine Drugs* 21(2):109.
- Carrilho MR, Scaffa PMC, Dionizio A, Ventura TMO, Buzalaf MAR, & Vidal CMP.** (2023) Differential analysis of the dentin soluble proteomic. *Journal of Dentistry* 131:104454.

PEER-REVIEWED PUBLICATIONS - CDMI (continued)

- Mathew R, Palatinus S**, Padala S, Alshehri A, Awadh W, Bhandi S, Thomas J, & Patil S. (2022) Neural networks for classification of cervical vertebrae maturation: A systematic review. *The Angle Orthodontist* 92(6):796–804.
- Rojas-Ramirez MV, Eldomiatty W, **Sangalli L**, Al-Sabbagh M, Dawson DR, & Miller CS. (2023) Xerostomia, reduced salivary flow, and oral burning: Associations from a cross-sectional study. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology* January 4: epub ahead of print.
- Sangalli L**, Alessandri-Bonetti A, & Dalessandri D. (2023) Effectiveness of dental monitoring system in orthodontics: A systematic review. *Journal of Orthodontics* June 4: epub ahead of print.
- Sangalli L & Boggero IA**. (2022) The impact of sleep components, quality and patterns on glymphatic system functioning in healthy adults: A systematic review. *Sleep Medicine* November 23: epub ahead of print.
- Sangalli L & Brazzoli S**. (2023) Calcitonin gene-related peptide (CGRP)-targeted treatments—new therapeutic technologies for migraine. *Future Pharmacology* 3(1):117-131.
- Sangalli L & Eldomiatty W**, & Miller C. (2023) Xerogenic medications may contribute to decreased unstimulated salivary flow in patients with oral burning and/or gastro-esophageal reflux disease. *Frontiers in Dental Medicine* 4:1047235.
- Sangalli L**, Yanez-Regonesi F, Fernandez-Vial D, & Moreno-Hay I. (2022) Self-reported improvement in obstructive sleep apnea symptoms compared to treatment response with mandibular advancement device therapy: A retrospective study. *Sleep and Breathing* 2022.
- Williams LN**. (2023) Role of general dentists in addressing head and neck squamous cell carcinoma. *General Dentistry* 71(2):15–16.
- Williams LN**. (2022) Spreading the word about community water fluoridation. *General Dentistry* 70(6):10–12.
- Williams LN**. (2022) Understanding special needs in dental practice. *General Dentistry* July/August 2022.

PEER-REVIEWED PUBLICATIONS - CGS

- Ambrosio R, Sanchez Rizza L, Do Nascimento M, Jimenez Pacheco HG, Miranda Ramos LM, **Hernandez JA**, & Curatti L. (2022) Promises and challenges for expanding the use of N₂-fixing cyanobacteria as a fertilizer for sustainable agriculture. In PK Singh, MF Fillat and A Kumar (Eds.). *Cyanobacterial Lifestyle and its Applications in Biotechnology*. (Chapter 5, pp. 99-158). Elsevier, Academic Press, USA. ISBN 9780323906340.
- Arnouk H** (Ed). (2023) Advances in fine needle aspiration cytopathology (pp.1-120). London, United Kingdom: IntechOpen.
- Arnouk H** (Ed). (2022) Advances in soft tissue tumors (pp.1-118). London, United Kingdom: IntechOpen.
- Beg R, Gonzalez K, & Martinez-Guryn K**. (2022) Implications of microbe-mediated crosstalk in the gut: Impact on metabolic diseases. *BBA - Molecular and Cell Biology of Lipids* 1867(2022):159180.
- Brochu CA, de Celis A, Adams AJ, Drumheller SK, Nestler JH, Benefit BR, **Grossman A**, Kirera F, Lehmann T, Liutkus-Pierce C, Manthi FK, McCrossin ML, McNulty KP, & Nyaboke Juma R. (2022). Giant dwarf crocodiles from the miocene of kenya and crocodylid faunal dynamics in the late Cenozoic of East Africa. *The Anatomical Record* 305(10):2729–2765.
- Bruskoski M, Ito B, Plotkin BJ**, Konaklieva M, & **Sigar IM**. (2022) Differential antimicrobial extract activity of graviola (*Annona muricata*) on gram positive and gram- negative antibiotic-resistant bacteria. *World Journal of Biology Pharmacy and Health Sciences* 12(03):063-069.

- Curry TM, **Esfandiarei M**, Thomas TC, & Rastogi RG. (2022) Case report: Lingerin post-concussive symptoms in a pediatric patient with presumed Ehlers-Danlos Syndrome. *Frontiers in Pediatrics* 10:937223.
- Elbaz B, Yang L, Vardy M, Isaac S, Rader BL, Kawaguchi R, **Traka M**, Woolf CJ, Renthal W, & Popko B. (2022) Sensory neurons display cell-type-specific vulnerability to loss of neuron-glia interactions. *Cell Reports* 40(3):111130.
- Elste J, Chan A**, Patil C, Tripathi V, Shadrack DM, Jaishankar D, **Hawkey A, Swanson-Mungerson M**, Shukla D, & **Tiwari V**. (2023) Archaic connectivity between the sulfated heparan sulfate and the herpesviruses - an evolutionary potential for cross-species interactions. *Computational and Structural Biotechnology Journal* 21:1030–1040.
- Gusek B, Folk R, Curry T, & Esfandiarei M**. (2022) Measurement of endothelium-dependent vasorelaxation in the mouse thoracic aorta using tensometric small volume chamber myography. *Journal of Visualized Experiments: JoVE* (186):10.3791/63918.
- Iwanaga J, Singh V, Takeda S, Ogeng'o J, Kim H-J, Morys J, Ravi KS, Ribatti D, Trainor PA, Sañudo JR, Apaydin N, Sharma A, **Smith HF**, Walocha JA, Hegazy AMS, Duparc F, Paulsen F, Del Sol M, Addis P, Louryan S, Fazan VPS, Boddeti RK, & Tubbs RS. (2022). Standardized statement for the ethical use of human cadaveric tissues in anatomy research papers: Recommendations from anatomical journal editors-in-chief. *Clinical Anatomy* 35(4):526-528.
- Jain R, **Bolch C, Al-Nakkash L**, & Sweazea KL. (2022) Systematic review of the impact of genistein on diabetes related outcomes. *American Journal of Physiology Regulatory, Integrative, and Comparative Physiology* 323:279-288
- Jun L, Robinson M, Geetha T, **Broderick TL**, & Babu JR. (2023) Prevalence and underlying mechanisms of skeletal muscle atrophy. *International Journal of Molecular Sciences; Special Issue on Molecular Basis to Therapeutic Approaches in Skeletal Muscle Dysfunction* 14:2973.
- Kinyanjui RN, **Grossman A**, Kirera FM, Waweru V, Malit NR, Omuombo C, Mashaka H, Chege LN, Nderitu F, & Kinyua R. (2023) Newly discovered Plio-Pleistocene sites in West Mt. Kenya: Potential tropical high elevation refugia? *Past Global Changes Magazine* 31(1):26-27.
- Knight E, Geetha T, **Broderick TL**, & Babu JR. (2023) The role of dietary antioxidants and their potential mechanisms in Alzheimer's Disease treatment. *Metabolites* 13:438.
- Konaklieva MI, & **Plotkin BJ**. (2023) β -Lactams and ureas as cross inhibitors of prokaryotic systems. *Applied Microbiology* 3(3):605–628.
- Line D**, Kohlmeier PS, & Mount S. (2022) Community engagement through contact tracing training. *Metropolitan Universities* 33(3):23-38.
- Madayag K, Incrocci R, & Swanson-Mungerson M**. (2022) The impact of Epstein-Barr Virus latent membrane protein 2A on the production of B cell activating factor of the tumor necrosis factor family (BAFF), APRIL and their receptors. *Immunity, Inflammation and Disease* 10(11):e729.
- Mehrotra S, **Pierce ML**, Dravid SM, Murray TF. (2022) Stimulation of neurite outgrowth in cerebrocortical neurons by sodium channel activator brevetoxin-2 requires both N-methyl-D-aspartate receptor 2B (GluN2B) and p21 protein (Cdc42/Rac)-activated kinase 1 (PAK1). *Marine Drugs* 20(9):559.
- Melin AD, **Veilleux CC**, Janiak M, Hiramatsu C, Sánchez-Solano K, Webb S, Williamson R, Mah M, Murillo-Chacon E, Schaffner C, Hernández-Salazar L, Aureli F, Kawamura S. (2022) Anatomy and dietary specialization influence sensory behavior among sympatric primates. *Proceedings of the Royal Society B Biological Sciences* 289:20220847.
- Meyer A, Sienes RE, Nijim W, **Zanotti B**, Umar S, **Volin MV**, Van Raemdonck K, Lewis M, Pitzalis C, Arami S, Al-Awqati M, Chang HJ, Jetanalin P, Schett G, Sweiss N, & Shahrara S. (2023) Syntenin-1-mediated arthritogenicity is advanced by reprogramming RA metabolic macrophages and Th1 cells. *Annals of the Rheumatic Diseases* 82:483-495.

Mishkin N, Ricart Arbona RJ, Carrasco SE, Lawton S, Henderson KS, Momtsios P, **Sigar IM, Ramsey KH**, Cheleuitte-Nieves C, Monette S, & Lipman NS. (2022) Reemergence of the murine bacterial pathogen *Chlamydia muridarum* in research mouse colonies. *Comparative Medicine* 72(4):230-242.

Monroy Del Toro R, Incrocci R, Negris O, McGrath S, Swartzendruber JA. (2023) *Bacillus subtilis* provides long-term protection in a murine model of allergic lung disease by influencing bacterial composition. *Allergies* 3(1):1-10.

Ortega-Santos CP, **Al-Nakkash L**, & Whisner CM. (2022) Exercise and/or genistein do not revert 24-week high-fat, high-sugar diet-induced gut microbiota diversity changes in male C57BL/6J adult mice. *Microorganisms* 10:2221.

Pesch MH & **Muldoon KM.** (2022) Congenital cytomegalovirus knowledge, practices and beliefs among primary care pediatricians and newborn hospitalists. *Journal of Primary Care & Community Health* 13:1-7.

Plotkin BJ, Borrelli A, Erbst M, Zheng V, Konaklieva MI, Schileru N, & Sigar IM. (2022) Multifunctionality of statins as antimicrobials. *World Journal of Biology Pharmacy and Health Sciences* 11(03):1-12.

Puthanveetil P. (2023) Metabolic activation of PARP as a SARS-CoV-2 therapeutic target-is it a bait for the virus or the best deal we could ever make with the virus? Is AMBICA the potential cure? *Biomolecules* 13(2):374.

Richter E, Geetha T, Burnett D, **Broderick TL**, & Babu JR. (2023) The effects of momordica *Charantia* on type 2 diabetes mellitus and Alzheimer's Disease. *International Journal of Molecular Sciences; Special Issue on Comeback to Natural Therapeutics in Modern Age: Insights into Molecular Modes of Action of Natural Products.* 24:4643.

Rogers AR, Turner EE, Johnson DT, & Ellormeier JR. (2022) Envelope stress activates expression of the twin arginine translocation (Tat) system in *Salmonella*. *Microbiology Spectrum* August 29: epub ahead of print.

Rosenberg AJ, Kay VL, Anderson GK, Luu ML, Barnes HJ, Sprick JD, Rickards CA. (2022) The reciprocal relationship between cardiac baroreceptor sensitivity and cerebral autoregulation during simulated hemorrhage in humans. *Autonomic Neuroscience: Basic and Clinical* 241:103007.

Shepherd SL, Graham L, Hornstein AS, LaRiviere KJ, **Muldoon KM**, Schneider M, & Wagner R. (2023) Creating an online community of support: Mothers of children with disabilities working in the academy. In (Trocchio S, Hanasono LK, Jorgeson Borchert J, Dwyer R, Harvie JY, eds) *It Takes a Village: Academic Mothers Building Online Communities*, Springer International Publishing. ISBN: 9783031266645.

Shirinian M, Chen C, Ushida S, **Jadavji NM.** (2022) Editorial: The role of epigenetics in neuropsychiatric disorders. *Frontiers in Molecular Neuroscience* 25 July 2022.

Sholl T & Soby S. (2022) Draft genome sequence of *Pseudomonas* sp. strain MWU15-20650, isolated from wild cranberry fruit in the Cape Cod National Seashore. *Microbiology Resource Announcements* 11(8):e0054722.

Smith HF. (2023) A review of the function and evolution of the cecal appendix. *The Anatomical Record* 306:972-982.

Smith HF, Berg M, & Adrian B. (2023) A well-preserved cranium from the Judith River Formation (Montana, USA) reveals the inner ear and neuroanatomy of a *Campanian baenid* turtle. *The Anatomical Record* 306:1431-1451.

St. Aubin CR, Fisher AL, Hernandez J, Broderick TL, & Al-Nakkash L. (2022) Mitigation of MAFLD in high fat-high sucrose-fructose fed mice by a combination of genistein consumption and exercise training. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy* 2022(15):2157-2172.

Stephenson EJ, Stayton AS, Sethuraman A, Rao PK, **Meyer A**, Gomes CK, Mulcahy MC, McAllan L, Puchowicz MA, Pierre JF, Bridges D, & Han JC. (2022) Chronic intake of high dietary sucrose induces sexually dimorphic metabolic adaptations in mouse liver and adipose tissue. *Nature Communications* 13(1):6062.

PEER-REVIEWED PUBLICATIONS - CGS (continued)

- Veilleux CC**, Dominy NJ, & Melin AD. (2022) The sensory ecology of primate food perception, revisited. *Evolutionary Anthropology* 31(6):281–301.
- Veilleux CC**, Garrett EC, Pajic P, Saitou M, Ochieng J, Dagsaan LD, Dominy NJ, Perry GH, Gokcumen O, Melin AD. (2023) Human subsistence and signatures of selection on chemosensory genes. *Communications Biology* 6(1):683.
- Wood M & Soby SD.** (2022) Draft genome sequence of *Pseudomonas protegens* strain MWU12-2233, isolated from wild cranberry fruit in Provincetown, Massachusetts. *Microbiology Resource Announcements* 11(8):e0054622.
- Yu J-H, Zhang W-D, Qin F, Xia C-Y, Qin Y, An M-T, **Gadagkar SR**, & Yu S-X. (2022) *Impatiens yunlingensis* (Balsaminaceae), a new species from Yunnan, China. *PhytoKeys* 212:13–27.

PEER-REVIEWED PUBLICATIONS - CHS-DG

- Bathje M, Escobar K, Crisp M, **Killian C**, & Royeen C. (2022) The impact of a psychosocial-focused experiential learning activity on occupational therapy students' perceived clinical reasoning. *Journal of Occupational Therapy Education* 6(3).
- Birkmeier M, Lundeen H, Furze J, Moore JG, Dannemiller L, & **Anderson D.** (2023) Excellence in pediatric physical therapy education: Recommendations and action items. *Pediatric Physical Therapy: The Official Publication of the Section on Pediatrics of the American Physical Therapy Association* February 28:epub ahead of print.
- Groezinger KL, Honsa CJ, Wilkinson DA, Simpson EK.** (2023) Occupational transitions of family caregivers of loved ones with dementia. *The Internet Journal of Allied Health Sciences and Practice* 21(1):Article 11.
- Harris HL, **Kiraly-Alvarez AF**, Costello PJ, & Schmeltz B. (2023) Understanding the doctoral capstone coordinator position: A unique faculty role in occupational therapy education. *The Open Journal of Occupational Therapy* 11(2):1-14.
- Knecht-Sabres LJ, Provencher D, Luciano K, Zera S, Higgins S, Lingle D, Higgins PA, & Bolch C.** (2023) Evaluating communication and collaboration among healthcare students. *Journal of Occupational Therapy Education* 7(1):7.
- Mahoney W, **Abraham G**, & Villacrusis M. (2023). Many hands working together: Adapting hospital care to support autistic children's mental health. *American Journal of Occupational Therapy* 77(2):7702185040.
- Mendoza N, Wandersee MC, & Sood D.** (2023) Occupational therapists' perspectives on nursing home culture and addressing the psychosocial needs of residents: Mixed methods design. *The Open Journal of Occupational Therapy* 11(2):1-14.
- Preissner K, Duke K.B., **Killian C**, Luangdilok Ouyang R, Jarek E.D. & Kottorp A. (2023) The revised American Occupational Association Fieldwork performance evaluations: Evaluation of content validity – part 2. *The American Journal of Occupational Therapy* 77(5).
- Rivera AD, Delbert T, Lucas Molitor W, **Kiraly-Alvarez AF**, Friberg D, Domina A, & Clegg A. (2022) A snapshot of how entry-level occupational therapy programs collect and use doctoral capstone outcomes. *Journal of Occupational Therapy Education* 6(4):11.
- Rockson SG, Karaca-Mandic P, Nguyen M, Shadduck K, Gingerich P, **Campione E**, & Hettrick H. (2022) A non-randomized, open-label study of the safety and effectiveness of a novel non-pneumatic compression device (NPCD) for lower limb lymphedema. *Scientific Reports* 12:14005.
- Saletta Fitzgibbons M.** (2022). The interface between reading and handwriting. *Frontiers in Psychology* 13: 892913.

PEER-REVIEWED PUBLICATIONS - CHS-DG (continued)

Saletta Fitzgibbons M & Stein AB. (2023) Introducing variability into the word learning of adults. *Communication Disorders Quarterly* 0(0).

Wampler M, **Campione E**, & **Bolch CA.** (2023) Practice patterns of physical therapists and physical therapist assistants treating patients with breast cancer related lymphedema. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer* 31(2):134.

Wingood M, **Irwin KE**, Bamonti PM, Criss MG, Harris R, Phillips E, Vincenzo JL, Chui K. (2022) Examining physical activity participation barriers among adults 50 years and older: A scoping review protocol. *Physical Therapy Reviews* June 11: epub ahead of print.

PEER-REVIEWED PUBLICATIONS - CHS-GD

Bailey C, Dela Cruz R, **Burns S**, & Austin PN. (2023) Retire the conventional laryngoscope? *American Association of Nurse Anesthetists Journal* 91(1):39–45.

Bouton M & Halasy MA. (2022) Bibliometric analysis of scholarly activity of authors of research articles published in the Journal of Physician Assistant Education from 2011-2020. *The Journal of Physician Assistant Education* 33(4):309-312.

Bouton M, & Halasy MA. (2023) Characteristics of highly prolific PA authors who contributed research to JAAPA and JPAE. *JAAPA: Official Journal of the American Academy of Physician Assistants* 36(3):37–41.

Desert A, **Lynch A**, **McMillon A**, **Terrill M**, & **MacNeil BA.** (2023) Doctoral clinical psychology student commentary on common myths about cognitive behavior therapy (CBT): Origins, negating factors, and lessons learned for competency-based training. *The Cognitive Behavior Therapist* 16(e7):1-15.

Fissel Brannick S, **Wolford GW**, **Wolford LL**, **Effron K**, & **Buckler J.** (2022) What is clinical evidence in speech-language pathology? A scoping review. *American Journal of Speech-Language Pathology* 31(6):2943–2958.

Gonzalez JZ. (2022) Critical race theory and cultural taxation as frameworks for analyzing the lack of faculty diversity in academic allied health professions programs. *Journal of Allied Health* 51(4):256-260.

MacNeil BA & Leung PC. (2022) Evaluating thinking styles in adults with an eating disorder: Associations with life satisfaction, psychological symptoms, and treatment engagement. *Journal of Psychiatric Research* 153:30-36.

MacNeil BA & Thib S. (2022) Psychiatric medication use by canadian adults prior to entering an outpatient eating disorders program: types and combinations of medications, predictors of being on a medication, and clinical considerations. *Psychiatric Research* 317:114930.

O’Neal SK, **Eikenberry MC**, **Bocchi A**, **Carroll K**, **Fettig M**, **Folliard P**, & **Martinez C.** (2022) Comparing the use of mathematical calculation to a measuring wheel to determine distance walked in three different course configurations of the 6 minute Walk Test in healthy adults. *Annals of Medicine* 54(1):591-598.

Phillips CM, Phan V, Jo K, Save O, Russell JB, Zeien KB, **Eikenberry MC**, Kinney CL, & Lee H. (2023) Perturbation-based training on compliant surfaces to improve balance in children with cerebral palsy: A feasibility study. *IEEE Transactions on Medical Robotics and Bionics* 5(2):242-252.

Roman C, Neary S, **Hoover E**, & Slavin S. (2022) The case for pass/fail grading in physician assistant programs. *The Journal of Physician Assistant Education: The Official Journal of the Physician Assistant Education Association* 33(4): 277–278.

PEER-REVIEWED PUBLICATIONS - CHS-GD (continued)

Scott K, Ankrum S, Lindsey E, Lopez O, Beitner J, Reck C, & Kargela M. (2023) Physical Therapy Management of Postacute Sequelae of COVID-19 in Outpatient Settings: A Scoping Review. *Cardiopulmonary Physical Therapy Journal* 34(2):64-74,

Scott K, Nelson J, Shamir D, Wamsley C, Wood B, & Erickson M. (2023) The effect of anthropometric characteristics and electronic device use on median nerve cross-sectional area: A cross-sectional study. *Journal of Hand Therapy: Official Journal of the American Society of Hand Therapists*, S0894-1130(22)00105-3. March 11: epub ahead of print.

Wolford GW, Wolford LL, Fissel Brannick S, Anderson EN, & McLoud K. (2022) “Getting back into school mode”: Experiences of former speech-language pathology assistants in graduate school. *Perspectives of the ASHA Special Interest Groups* 7:1449-1474.

PEER-REVIEWED PUBLICATIONS - COP

Alshaer MH, Goutelle S, Santevecchi BA, Shoulders BR, Venugopalan V, Cherabuddi K, Liu J, Kiel PJ, Roberts JA, Sime FB, **Scheetz MH**, Neely MN, & Peloquin CA. (2022) Cefepime precision dosing tool: From standard to precise dose using nonparametric population pharmacokinetics. *Antimicrobial Agents and Chemotherapy* 66(2):e0204621.

Barletta JF. (2022) Arterial blood gases and acid-base balance. *Basic Skills in Interpreting Laboratory Data*, 7th Edition. *American Society of Health-System Pharmacists* 283-296.

Barletta JF. (2023) Prophylactic acid suppression and enteral nutrition. *Current Opinion in Clinical Nutrition and Metabolic Care* 26(2):174–178.

Barletta JF & Erstad BL. (2022) Dosing medications for coagulopathy reversal in patients with extreme obesity. *Journal of Emergency Medicine* 63(4):541-550.

Barletta JF & Erstad BL. (2022) Pitfalls and pearls with drug dosing in the critically ill obese patient: 10 statements to guide ICU practitioners. *Journal of Critical Care* 71:154105.

Bhathal S, Joseph E, Nailor MD, & Goodlet KJ. (2022) Adherence and outcomes of a surgical prophylaxis guideline promoting cephalosporin use among patients with penicillin allergy. *Surgery* 172(6):1598–1603.

Bookstaver PB, Bodan S, Chamberlin KW, Hake KL, Hong L, Kabbani R, McCormick A, Morris J, **Schumacher C**, Thompkins A, Tschumper E, Weaver A, White SE, & Hemstreet BA. (2023) Postgraduate year 1 pharmacy residency equivalency—2023. *Journal of the American College of Clinical Pharmacy* 6(3):291- 296.

Briyal S, Ranjan A, & Gulati A. (2023) Oxidative stress: A target to treat Alzheimer’s Disease and stroke. *Neurochemistry International* 165:105509

Cat TB, Du J, Chen C, **El-Ibiary SY**, & Lee KC. (2022) Impact of a well-being promotion training program on advanced pharmacy practice experience conference leaders. *American Journal of Pharmaceutical Education* 86(8):ajpe8757.

Chang J, Pais GM, Valdez K, Marianski S, Barreto EF, & Scheetz MH. (2022) Glomerular function and urinary biomarker changes between vancomycin and vancomycin plus piperacillin-tazobactam in a translational rat model. *Antimicrobial Agents and Chemotherapy* 66(3):e0213221.

Chang J, Patel D, Vega A, Claeys KC, Heil EL, & Scheetz MH. (2022) Does calculation method matter for targeting vancomycin area under the curve? *The Journal of Antimicrobial Chemotherapy* 77(8):2245–2250.

PEER-REVIEWED PUBLICATIONS - COP (continued)

Chappell BT, **Griffin BL**, & Howard B. (2022) Mechanisms of action of currently available woman-controlled, vaginally administered, non-hormonal contraceptive products. *Therapeutic Advances in Reproductive Health* 16.

Cornell S. (2022) Clinical practice guidelines update: Focus on diabetes. *Pharmacy Today* 28(6):54-62.

Cornell S. (2022) Diabetes, part 1: Disease state review. *The Senior Care Pharmacist* 37(4):139-145.

Davis E, Moen C, Glover J, & Pogge E. (2022) Understanding medication use behaviors and perspectives in an older cardiovascular patient population: Opportunities for patient-centered deprescribing. *American Heart Journal Plus: Cardiology Research and Practice* 17:100164.

Davis LE, Pogge EK, & Garg R. (2023) Are beta-blockers safe and effective after myocardial infarction in patients with COPD? *JAAPA: Official Journal of the American Academy of Physician Assistants* 36(3):13–15.

El-Ibiary SY, Salib M, & Lee KC. (2022) Assessment of areas of worklife among pharmacy educators. *American Journal of Pharmaceutical Education* 86(7):8671.

Erstad BL & **Barletta JF.** (2023) Challenges with using a weight-based approach to bolus fluid dosing in obese critically ill patients. *The Annals of Pharmacotherapy* 57(5):609–616.

Erstad BL & **Barletta JF.** (2022) Implications of obesity on drug administration and absorption from SC and IM injections: A primer. *American Journal of Health System Pharmacists* 79(15):1236-44.

Erstad BL & **Barletta JF.** (2023) Pharmacologic venous thromboembolism prophylaxis in obese trauma patients. *American Journal of Health-System Pharmacy* 80(5):258–266.

Guthrie A, Fairman K, & Gerber DK. (2022) Fractured timelines: reporting patterns for bisphosphonate-associated atypical fractures and implications for postmarket surveillance. *The Senior Care Pharmacist* 37(11):555-564.

Haas CE, **Kliethermes MA**, Armistead LT, Beavers C, **Schumacher C**, Smith L, Armistead JA, Emmons RP, Darakjian L, Edwards KL, & Barr M. (2023) Comprehensive medication management: Review and recommendations for quality measures. *Journal of the American College Clinical Pharmacists*. February 8: epub ahead of print.

Hess, R, **Schumacher, C**, Whitley, HP, Reece S, Knezevich EL, **DeLa Peña LE**, Gross B, Knezevich JT, Ginzburg R, Albanese NP, & Issacs D. (2022) Diabetes technology: A primer highlighting the role of the pharmacist. *Journal of the American College of Clinical Pharmacy* 5(12): 1307- 1323.

Joshi MD, Iacoban P, & Scheetz MH. (2023) Pharmacokinetic and biomarker quantification studies on vancomycin-loaded PEGylated liposomes and its potential to reduce vancomycin-induced kidney injury: A rat study. *Pharmaceutics* 15(6):1582.

Leung E, Crass RL, Jorgensen SCJ, Raybardhan S, Langford BJ, Moore WJ, & **Rhodes NJ.** (2022) Pharmacokinetic/ pharmacodynamic considerations of alternate dosing strategies of tocilizumab in COVID-19. *Clinical Pharmacokinetics* 61(2):155-165.

Locci E, Liu J, **Pais GM**, Chighine A, Kahnamoei DA, Xanthos T, Chalkias A, Lee A, Hauser AR, **Chang J, Rhodes NJ, d'Aloja E, & Scheetz MH.** (2022) Urinary metabolomics from a dose-fractionated polymyxin B rat model of acute kidney injury. *International Journal of Antimicrobial Agents* 60(1):106593.

Lodise TP, **Scheetz MH**, Carreno JJ, Chambers H, Fowler V Jr, & Holland TL. (2022) Associations between vancomycin exposure and acute kidney injury within the recommended area under the curve therapeutic exposure range among patients with methicillin-resistant *Staphylococcus aureus* bloodstream infections. *Open Forum Infectious Diseases* 9(2):ofab651.

PEER-REVIEWED PUBLICATIONS - COP (continued)

- Magdalany AN, Nailor MD, Gonzalez O, **Goodlet KJ**. (2023) Can fluconazole be used for inpatient re-treatment of coccidioidomycosis among patients with past fluconazole exposures? *Mycoses* 66(2):150-156.
- Mazan JL, Komperda KE, & D'Souza JJ**. (2022) Effect of virtual simulation on students' ability to assess self-care patient cases. *Currents in Pharmacy Teaching and Learning* 14(7):863-869.
- O'Donnell JN, Putra V, Maring BL, Ozer EA, Belfiore GM, & **Rhodes NJ**. (2022) Effect of omadacycline alone and in combination with meropenem against carbapenem-resistant *Acinetobacter baumannii* isolates. *Journal of Global Antimicrobial Resistance* June 29:147-149.
- O'Donnell JN, **Rhodes NJ**, Miglis CM, Zembower TR, Qi C, Hoff BM, Barr VO, Gilbert EM, Bolon MK, Malczynski M, Gener J, Tran C, Catovic L, Postelnick MJ, Sutton SH, & **Scheetz MH**. (2022) Impact of early antimicrobial stewardship intervention in patients with positive blood cultures: Results from a randomized comparative study. *International Journal of Antimicrobial Agents* 59(2):106490.
- Pais GM, Chang J, Liu J, & Scheetz MH**. (2022) A translational rat model to assess glomerular function changes with vancomycin. *International Journal of Antimicrobial Agents* 59(5):106583.
- Pogge E & Davis L**. (2022) Geriatric pharmacotherapy case series: Neurogenic orthostatic hypotension. *The Senior Care Pharmacist* 37(11):546-554.
- Pogge E & Early N**. (2022) Diabetes management part 6: Antidiabetic medication benefits beyond glucose lowering in older adults. *The Senior Care Pharmacist* 37(10):475-484.
- Ranjan AK & Gulati A**. (2023) Controls of central and peripheral blood pressure and hemorrhagic/hypovolemic shock. *Journal of Clinical Medicine* 12(3):1108.
- Rebolledo JA, Rhodes NJ, Valdes AM, Kulekowskis A, & Kliethermes MA**. (2022) Implementation of a clinical pharmacist-driven comprehensive medication management program in an outpatient wound healing center. *Journal of the American Pharmacists Association* 62(2):475-480.
- Rohani R, Hoff B, Jain M, Philbrick A, Salama S, Cullina JF, & Rhodes NJ**. (2022) Defining the importance of age-related changes in drug clearance to optimizing aminoglycoside dosing regimens for adult patients with cystic fibrosis. *European Journal of Drug Metabolism and Pharmacokinetics* 47(2):199-209.
- Rohani R, Scheetz MH, Donnelly HK, Donayre A, Kang M, Diaz E, Dedicataria K, Hauser AR, Ozer EA, Nozick S, Qi C, Pawlowski AE, Neely MN, Misharin AV, Wunderink RG, Rhodes NJ; NU SCRIPT Study investigators**. (2022) Individual target pharmacokinetic/pharmacodynamic attainment rates among meropenem-treated patients admitted to the ICU with hospital-acquired pneumonia. *Journal of Antimicrobial Chemotherapy* July 23: epub ahead of print.
- Schumacher C**. (2022) Severe hypotension with concomitant sodium-glucose co-transporter-2 inhibitor and angiotensin receptor-neprilysin inhibitor therapy in a patient with heart failure reduced ejection fraction: A case report. *Journal of Pharmacy Practice* November 28: epub ahead of print.
- Sucher JF, **Barletta JF**, Shirah GR, Prokuski LJ, Montanarella PD, Dzandu JK, & Mangram AJ. (2022) The safety of continuous fascia iliaca block in patients with hip fracture taking pre-injury anticoagulant and/or antiplatelet medications. *American Journal of Surgery* 224(6):1473-1477.
- Van Dril E, Allison M, **Schumacher C**. (2022) Deprescribing in type 2 diabetes and cardiovascular disease: Recommendations for safe and effective initiation of glucagon-like peptide-1 receptor agonists in patients on insulin therapy. *American Heart Journal Plus: Cardiology Research and Practice*. 17:100163.
- Vernon V, **Patel J**, Cieri-Hutcherson NE, **Arellano R**, Elmore H, **Griffin BL, Mitzel K**, Moyeno WM, O'Connell MB, Pelaccio K, & Lodise NM. (2023) The impact of COVID-19 on select considerations in patients of reproductive age: Brief talking points for pharmacists. *Journal of the American Pharmacists Association* January 10: epub ahead of print.

PEER-REVIEWED PUBLICATIONS - COP (continued)

Weissig V. (2023) From olive oil emulsions to COVID-19 vaccines: Liposomes came first. *Methods in Molecular Biology (Clifton, N.J.)* 2622:1–19.

Wesling M, **D'Souza JJ.** (2022) Diabetes: How to manage overweight and obesity in type 2 diabetes mellitus. *Drugs in Context* 11:2021-11-7.

Wu EL, Al-Heeti O, Hoff BM, Williams JL, Krueger KM, Santoiemma PP, & **Rhodes NJ.** (2022) Role of therapeutic drug monitoring in the treatment of persistent *Mycobacterium abscessus* central nervous system infection: A case report and review of the literature. *Open Forum Infectious Disease* 9(8):ofac392.

PEER-REVIEWED PUBLICATIONS - CVM

Carter TD, Fuller BD, Shaver SL, Foy DS. (2022) Retrospective evaluation of the efficacy of fluconazole for the treatment of coccidioidomycosis in dogs: 49 cases (2015–2020). *Journal of the American Veterinary Medical Association* 260(10):1200-1205.

Costa RS, Ciotti-McClallen M, Tilley R, Perry S, Maki L, Starks D, & Stein AB. (2022) Intramuscular alfaxalone with or without buprenorphine or hydromorphone provides sedation with minimal adverse effects in healthy rabbits (*Oryctolagus cuniculus*) in a randomized blinded controlled trial. *Journal of the American Veterinary Medical Association* 261(2):223–228.

Costa RS, Hassur RL, Jones T, & Stein AB. (2022) The use of pain scales in small animal veterinary practices in the USA. *The Journal of Small Animal Practice* December 25:epub ahead of print.

Dalrymple AM, **MacDonald LJ, Kreisler RE.** (2022) Ear-tipping practices for identification of cats sterilized in trap–neuter–return programs in the USA. *Journal of Feline Medicine and Surgery.* 24(10):302–309.

Freeman M, Palmer A, West G, & **Goe A.** (2022) Successful management of Arizona bark scorpion (*Centruroides sculpturatus*) envenomation in a gray's monitor (*Varanus olivaceus*). *Vet Record Case Reports* Aug 12:e471.

Hernandez B, **Jaffey JA,** Cohn LA, Backus RC, KuKanich K, Hanzlicek AS, Parker VJ, **White ME,** Ringold R, **Westerback E,** Freilich L, & **Bolch C.** (2023) Evaluation of serum 25-hydroxyvitamin D, C-reactive protein, and haptoglobin as biomarkers in dogs newly diagnosed with histoplasmosis. *Journal of Veterinary Internal Medicine* 2023:1- 8.

Jaffey JA, Bullock G, Guo J, Mhlanga-Mutangadura T, O'Brien DP, Coates JR, Morrissey R, Hutchison R, Donnelly KS, Cohn LA, Katz ML, & Johnson GS. (2022) Novel homozygous *ADAMTS2* variants and associated disease phenotypes in dogs with dermatosparactic Ehlers–Danlos Syndrome. *Genes* 13:2158.

Jaffey JA, Kreisler RE, Shubitz LF, Backus RC, Hostnik ET, **Wycislo KL, Monasky R, Schaffer M,** & Holland C. (2023) Serum 25-hydroxyvitamin D concentrations in dogs with coccidioidomycosis and variables associated with extent of clinically evident disease. *Journal of Veterinary Internal Medicine* 37(1):150–160.

Jaffey JA, Shubitz LF, Johnson MDL, **Bolch CA,** da Cunha A, **Murthy AK, Lopez BS, Monasky R, Carswell I, Spiker J,** Neubert MJ, & Menghani SV. (2023) Evaluation of host constitutive and ex vivo coccidioidal antigen-stimulated immune response in dogs with naturally acquired coccidioidomycosis. *Journal of Fungi (Basel, Switzerland)* 9(2):213.

Jaffey JA, Su D, **Monasky R, Hanratty B, Flannery E, & Horman M.** (2022) Effects of a whole food diet on immune function and inflammatory phenotype in healthy dogs: A randomized, open-labeled, cross-over, clinical trial. *Frontiers in Veterinary Science* 9:898056.

PEER-REVIEWED PUBLICATIONS - CVM

- Jaffey JA, & Wycislo KL.** (2023) Inflammatory phenotype, clinicopathologic variables, and effects of long-term methylene blue in dogs with hereditary methemoglobinemia caused by cytochrome b5 reductase deficiency. *American Journal of Veterinary Research* 84(2):ajvr.22.09.0155.
- Kreisler RE,** Pugh AA, Pemberton K, Pizano S. (2022) The impact of incorporating multiple best practices on live outcomes for a municipal animal shelter in Memphis, TN. *Frontiers in Veterinary Science* 9:786866.
- Langlois DK, Pritchard JC, Tolbert MK, Jergens AE, Block G, Hanzlicek AS, **Jaffey JA,** Steiner JM, Marsilio S, & Jablonski SA. (2023) Clinical utility of an immunoglobulin A-based serological panel for the diagnosis of chronic enteropathy in dogs. *Journal of Veterinary Internal Medicine* 2023:1–9.
- Lopez BS.** (2022) Can infectious disease control be achieved without antibiotics by exploiting mechanisms of disease tolerance? *ImmunoHorizons* 6(10):730–740.
- Marble GP, **Sullins KE.** & Powers BK. (2023) Evaluation of a subcutaneously implanted biodegradable matrix with and without cisplatin in horses. *Equine Veterinary Education* 2022(00):1–7.
- McCallin AJ, Turner JWC, & Kreisler RE.** (2022) Pyometra management in the private practice setting. *Topics in Companion Animal Medicine* 50:100695.
- Ogrodny A, Jaffey JA, Kreisler R, Acierno M, Jones T, Costa RS, da Cunha A, & Westerback E.** (2022) Effect of inhaled albuterol on whole blood potassium concentrations in dogs. *Journal of Veterinary Internal Medicine* 10.1111/jvim.16552.
- Ross K, Ruiz Le-Bert C, **Goe A,** Meegan J, Johnson S, McClain A, Linnehan B, Lutmerding E, Gomez F, Smith CR, Ivancic M, Terio K, Colegrove K, & Jensen E. (2023) Superficial cervical lymphadenitis associated with *Streptococcus phocae* in five common bottlenose dolphins (*Tursiops truncatus*): A case series. *Journal of Zoo and Wildlife Medicine* 54(1): 192-201.
- Siler AD, Jaffey JA,** Jacobs C, & Shumway K. (2023) Diagnostic contribution of bronchoalveolar lavage sampling and fungal culture in a dog with pulmonary coccidioidomycosis. *Topics in Companion Animal Medicine* 52:100754.
- Wallitsch K, Jaffey JA, Ferguson S,** Verocai GG, Sobotyck C, van Eerde E, & Bashaw S. (2022) Extensive aberrant migration of *Onchocerca lupi* in a dog. *Topics in Companion Animal Medicine* 49:100666.

INTRAMURAL FUNDING

AZCOM

Investigator/s	College	Department	Proposal Title
Wodiuk, G.	AZCOM	Medicine	Impact of Intermittent Continuous Glucose Monitoring on Medicare Patients with Type 2 Diabetes

Total AZCOPT Intramural Funding: \$5,603

AZCOPT

Investigator/s	College	Department	Proposal Title
Baker, J., & Kozlowski, M.	AZCOPT	Optometry	Evaluation of the Safety of Using Low Level Violet Light in Myopia Control
Fintelmann, R.	AZCOPT	Optometry	Acceptance of Finger-prick Autologous Blood Based on the Initial Physician-Patient Interaction
Kozlowski, M.	AZCOPT	Optometry	Evaluation of Metformin for the Treatment of Dry AMD
Kozlowski, M.	AZCOPT	Optometry	Evaluation of a Potentially More Robust Animal Model System of AMD
Putnam, N.	AZCOPT	Optometry	Updates to the Tracking Scanning Laser Ophthalmoscope (TSLO) for Improved Clinical Imaging and Eye Tracking
Roe, M.	AZCOPT	Optometry	Impact of Time of Day on Binocular Vision
Vasudevan, B.	AZCOPT	Optometry	Assessment of the Magnitude of Inflammatory Markers in Dry Eye Patients

Total AZCOPT Intramural Funding: \$33,082

CCO

Investigator/s	College	Department	Proposal Title
Gialousakis, J.	CCO	Optometry	The Effectiveness of VR Slit Lamp in Optometry Education
Nadarajah, V.	CCO	Optometry	The Influence of Contact Lenses on Dry Eye Symptoms During Screen Time Exposure
Prestwich, C., & Williams, J.	CCO	Optometry	Accuracy of Prism in Online Spectacle Purchases
Quan, A. Chakraborty, A.	CCO	Optometry	The Effect of Noninvasive Brain Stimulation of the Visual Cortex on Visual Evoked Responses

Total CCO Intramural Funding: \$7,554

CGS

Investigator/s	College	Department	Proposal Title
Al-Nakkash, L.	CGS	Physiology	Reversibility of Diet-induced Liver Steatosis and Fibrosis
Bae, N.	CGS	Biochemistry & Molecular Genetics	The Telomere-Protection Protein RAP1 Binds DNA and TET3: Implications in Gene Regulation
Bjork, B.	CGS	Biochemistry & Molecular Genetics	Prdm16 and Prdm3 Functions in Mouse Embryonic Craniofacial Cartilage and Bone Development Impact Normal Mandible and Palate Development
Bodenstine, T.	CGS	Biochemistry & Molecular Genetics	Exploring Cadherin-11 and Connexin 43 Interactions During Metabolic Reprogramming in Breast Cancer Cells
Chandar, N.	CGS	Biochemistry & Molecular Genetics	Understanding Retinoblastoma Gene Function in Maintaining Osteoblast Cell Fate
Ciancio, M.	CGS	Biomedical Sciences	Photobiomodulation Therapy and Oral Squamous Cell Carcinoma: Prevention or Progression

INTRAMURAL FUNDING

CGS (Continued)

Investigator/s	College	Department	Proposal Title
Edwards, J.	CGS	Pharmacology	Effects of the Diabetogenic Environment Toxicant Cadmium on Pancreatic β -cell Function
Fay, M.	CGS	Pharmacology	Expression and Function of Cadmium-dysregulated microRNAs in Human Proximal Tubule Epithelial Cells
Fornaro, M.	CGS	Anatomy	Understanding Mitochondria Activity to Counteract Ageing and Alzheimer's Related Dementia
Georgi, J.	CGS	Anatomy	Cutaneous Musculature of the Ventral Body Wall and Support of Mammary Tissue
Goral, J.	CGS	Anatomy	Evaluation of 4NQO-induced Histopathological Changes in Lungs and Livers of Mice, Role of Diet and Sex
Green, J.	CGS	Biochemistry & Molecular Genetics	Characterization of the Role of Folate Availability in Development of 4-Nitroquinoline-1-oxide Induced Pathology in Liver, Kidney, and Tongue
Grossman, A.	CGS	Anatomy	Paleontology of Fossil Vertebrates from Two Early Miocene Formations in Israel
Hall, M.	CGS	Anatomy	Evolution of the Pelvis and Perineum: Homologies of Anatomical Pathways for the Cavernous Nerves in Human and Non-human Vertebrates
Heesy, C.	CGS	Anatomy	Modeling Intra- and Interspecific Variation in Cortical Folding in Mustelids Based on the Ferret Neocortical Developmental Model
Hnida, J.	CGS	Microbiology & Immunology	Coccidia of White-tailed Antelope Squirrel, and Gray-collared Chipmunk, and Golden-mantled Ground Squirrel Populations in Northern Arizona
Hull, E.	CGS	Biomedical Sciences	Identification of Epigenetic Factors in Tumor Cell Plasticity: SWI/SNF Chromatin Remodeling Activity
Kaufman, J. A.	CGS	Anatomy	Molecular and Behavioral Effects of Sonically-induced Mild Traumatic Brain Injury (mTBI) in Zebrafish
Kopf, P.	CGS	Pharmacology	Kratom Alkaloids and Adrenal Steroidogenesis
Korch, S.	CGS	Pharmacology	Analysis of Metabolic Adaptations in HeLa Cancer Cells as a Function of Energy Status
Kristjansdottir, K.	CGS	Biomedical Sciences	Elucidating the Mechanism of Directed Cell Growth of Peripheral Nerves on Nanoscale Topography
Lawson, K.	CGS	Biochemistry & Molecular Genetics	P-Cadherin Signaling in Oral Tumor Development
Lee, A. H.	CGS	Anatomy	Limb Bone Structure in the North American River Otter Across Environmental Gradients
Leyva, K. J.	CGS	Microbiology & Immunology	Regulation of EMT in Cutaneous Squamous Cell Carcinoma
Mayer, A. M. S.	CGS	Pharmacology	Effect of Cyanobacterial LPS on Immune Activation of Human De-identified Brain Cultures and Human HMC3 Microglia Cell Line
McCulloch, P.	CGS	Physiology	Brainstem Cardiorespiratory Control Mechanisms
Mejia-Alvarez, R.	CGS	Physiology	IP3R2-mediated Ca ²⁺ Signaling in Ventricular Myocytes
Norris, J.	CGS	Pharmacology	The Role of CCK Receptor Subtypes in Non-small Cell Lung Cancer Tumorigenesis
Olson, C.	CGS	Physiology	Neuromodulation of the Vocal Circuit by Vitamin A Deficiency
Pierce, M.	CGS	Pharmacology	Identification of Natural Neuroactive Compounds for Neuroscience Drug Development
Plotkin, B. J.	CGS	Microbiology & Immunology	Anaerobic Metabolic Rewiring and Metastatic Potential
Porta, M.	CGS	Physiology	The Memory of Pregnancy in the Uterus: Contractility
Rodriguez Sosa, J.	CGS	Anatomy	Transplantation of Spermatogonial Stem Cells and Sertoli Cells from Pig to Mouse Testes to Evaluate Their Ability to Generate Donor Spermatogenesis
Simons, E.	CGS	Anatomy	Anatomy and Histology of the Macaroni Penguin (<i>Eudyptes chrysolophus</i>)
Smith, H. F.	CGS	Anatomy	Segmentation of Tortoise Microanatomy for Improved Diagnostic Imaging

INTRAMURAL FUNDING

CGS (Continued)

Investigator/s	College	Department	Proposal Title
Swanson-Mungerson, M.	CGS	Microbiology & Immunology	Role of mTOR-mediated Activation of STAT3 in Mediating Increased ATP Production in B Cell Tumors Expressing the Epstein-Barr Virus Latency Protein, LMP2A
Szul, M.	CGS	Microbiology & Immunology	Quorum Sensing and Arthropod Virulence in <i>Chromobacterium vaccinii</i>
Tiwari, V.	CGS	Microbiology & Immunology	Application of Plant Cell-engineered Gold Nanoparticles as a Novel Approach to Target SARS-CoV-2 Entry
Vallejo-Elias, J.	CGS	Physiology	Impact of Inducible Nitric Oxide (iNOS) Inhibition on the Expression Levels of Blood Biomarkers in a Mouse Model of Marfan Syndrome: Establishing a Correlation with Aortic Wall Pathology
Velez-Cruz, R.	CGS	Biochemistry & Molecular Genetics	The Role of SWI/SNF Chromatin Remodelers in Homologous Recombination and Genome Stability

Total CGS Intramural Funding: \$189,617

CHS-DG

Investigator/s	College	Department	Proposal Title
Abraham, G..	CHS-DG	Occupational Therapy	Cognitive Orientation to Daily Occupational performance (CO-OP) Group for Children with Sensory Challenges
Evans, C.	CHS-DG	Physical Therapy	Effectiveness of an Individualized and Evidence-Based Hygiene and Cleaning Intervention in an Outpatient Physical Therapy Clinic
Hanke, T.	CHS-DG	Physical Therapy	Crossover Stepping in Younger and Older Adults
Hess, J.	CHS-DG	Physical Therapy	Using Surface Topography to Assess Gross and Segmental Spinal Mobility
Keller, S.	CHS-DG	Physical Therapy	Therapist Experience with use of Rate of Perceived Stability Scale in Inpatient Stroke Rehabilitation
Krzak, J.	CHS-DG	Physical Therapy	The Effect of Full-leg Lymphedema Compression Bandaging on Gait and Gross Motor Function
Piszczor, R.	CHS-DG	Behavioral Sciences	Promotion of Well-Being through Yoga and Wellness Training in an Allied Health Graduate School Population-A Pilot Program
Post, K.	CHS-DG	Speech-Language Pathology	Effectiveness of Parent Instruction in Partner-Augmented Input via Telepractice
Prodoehl, J.	CHS-DG	Physical Therapy	Disordered Breathing Assessment in Chronic Pain

Total CHS-DG Intramural Funding: \$32,789

CHS-GD

Investigator/s	College	Department	Proposal Title
Ator, R.	CHS-GD	Physical Therapy	Physical Therapists' Role in Health Promotion as Perceived by the Patient: A Descriptive Survey
Darban, N.	CHS-GD	Cardiovascular Science	Assessing Biomarkers Release and Expression by Platelet Activation During Cardiopulmonary Bypass
Ford, V.	CHS-GD	Nurse Anesthesia	Building Conflict Management Competence and Self Awareness in Nurse Anesthesia Residents
Morrow, M.	CHS-GD	Nurse Anesthesia	Barriers to Implementing Point-of-Care Ultrasound in Nurse Anesthesia Practice

Total CHS-GD Intramural Funding: \$16,085

INTRAMURAL FUNDING

COP

Investigator/s	College	Department	Proposal Title
Bhalla, S.	CPDG	Pharmaceutical Sciences	Involvement of cAMP and Calcium Signaling Pathways in Endothelin-A Receptor Mediated Attenuation of Morphine Tolerance and Withdrawal
Briyal, S.	CPDG	Pharmaceutical Sciences	Study the Effects of Endothelin B Receptors Agonism on Neuroinflammation in Association with AD-related Pathologies in a Transgenic Mouse Model of Alzheimer's Disease
Chang, J.	CPDG	Pharmacy Practice	Metabolomics: A Pathway to an Earlier Intervention Window to Prevent Vancomycin-induced Kidney Injury?
Huang, V.	CPG	Pharmacy Practice	Evaluation of In Vitro Activity of Eracycline Alone and in Combination Against Clinical <i>Acinetobacter baumannii</i> Strains
Joshi, M.	CPG	Pharmaceutical Sciences	Amelioration of Drug Induced Nephrotoxicity Using Novel Nanoliposome Formulation
Olsen, M.	CPG	Pharmaceutical Sciences	Development of Nephroprotective Therapeutics for Acute Kidney Injury
Pais, G.	CPDG	Pharmaceutical Sciences	Defining the Impact of Kidney Injury on Cefepime-induced Neurotoxicity
Ranjan, A.	CPDG	Pharmaceutical Sciences	Exploring the Role of Endothelin B Receptors in Differentiation of Neural Progenitors after Ischemia
Scheetz, M.	CPDG	Pharmacy Practice	A Mechanism Based Approach to Decrease Vancomycin Kidney Injury

Total COP Intramural Funding: \$95,756

CPM

Investigator/s	College	Department	Proposal Title
Thoms, T.	CPM	Podiatric Medicine	Plantar Pressure Mapping in Metatarsal Guard Work Boots Comparing Cushioning and Supportive Shoe Inserts
Violand, M.	CPM	Podiatric Medicine	How Are Gait and the Contralateral Limb Affected When a Patient Is Ambulating with a Total Contact Cast When Accommodating the Limb Length Discrepancy with a Heel Lift and a Full-Length Lift?

Total CVM Intramural Funding: \$12,141

CVM

Investigator/s	College	Department	Proposal Title
Brosnahan, M. & Lee, J.	CVM	Veterinary Medicine	Generation of Preliminary Data to Support a Project Entitled Profiling the Oral and Peripheral Blood Immune Status in Horses with and without Equine Odontoclastic Tooth Resorption and Hypercementosis (EOTRH)
Chako, C.	CVM	Veterinary Medicine	Ovariectomy as a Treatment Option for Goats with Precocious Mammary Glands and Inappropriate Lactation
Li, W.	CVM	Veterinary Medicine	The Role of mRNA in Modulation of Macrophage-induced Chlamydia Immunity

Total CVM Intramural Funding: \$30,000

INTRAMURAL FUNDING

FACULTY SEED GRANT AWARDS

Investigator/s	Campus	Proposal Title
Veilleux, C.	Glendale	Grasping the Genetic Basis of Precision Touch in a Primate Model
Stephenson, E.	Downers Grove	Role of Primary Cilia in the Maintenance of Skeletal Muscle
Tiwari, V. & Swanson-Mungerson, M.	Downers Grove	Structure-function Analysis of NPC1-L1/ACE-2 Mediated SARS-CoV-2 Entry

Total Faculty Seed Grant Funding: \$31,893

IMPROVING HEALTH CARE DELIVERY AND REDUCING HEALTH CARE DISPARITIES IN UNDERSERVED MINORITY COMMUNITIES AWARD

Investigator/s	Campus	Proposal Title
O'Neal, S. Eikenberry, M., Christensen, S., Turner, T.	Glendale	Therapy Student Community Outreach Program for People Living with Parkinson's Disease

Total Health Care Delivery Research Funding: \$5,000

ONE HEALTH RESEARCH AWARDS

Investigator/s	Campus	Proposal Title
Revill, A., Vallejo-Elias, J. & Bussey K.	Glendale	Evaluation of the Impacts of Biological Sex and Diet-induced Obesity on Ion Channel and mRNA Expression at the Hypoglossal Motoneurons in Mice

Total One Health Research Funding: \$10,000

**TOTAL MWU INTRAMURAL FUNDING AWARDED BY ALL COLLEGES
DURING THIS REPORTING PERIOD: \$469,520**

FY23 ANNUAL REPORT

UNIVERSITY-FUNDED RESEARCH SUPPORT POSITIONS BY CAMPUS*

MWU "HARD MONEY" RESEARCH SUPPORT POSITIONS		
CAMPUS	FTE	TOTAL COMPENSATION FOR REPORTING PERIOD
DOWNERS GROVE, ILLINOIS	26.3	\$1,699,455
GLENDALE, ARIZONA	33.1	\$1,876,962
TOTAL	59.4	\$3,576,417

*THIS INCLUDES FUNDED OR FILLED, TEMPORARY OR PERMANENT POSITIONS. THIS DOES NOT INCLUDE "SOFT MONEY" RESEARCH POSITIONS FUNDED BY GRANTS OR CONTRACTS.

**TOTAL COMPENSATION TO ALL COLLEGES FOR RESEARCH SUPPORT POSITIONS
IN THIS REPORTING PERIOD IS \$3,576,417**

UNIVERSITY-FUNDED CAPITAL RESEARCH EQUIPMENT

Another manner in which MWU supports research is through consideration and funding of capital research equipment requests submitted by departments. In FY 2023, MWU spent \$1,130,821 on capital equipment purchases for research purposes across both campuses.

UNIVERSITY-FUNDED PER DIEM CHARGES

A way in which MWU supports research is through the waiving of animal *per diem* charges for those seeking extramural funding. During FY2023, MWU waived \$244,444 in animal *per diem* charges across both campuses.

UNIVERSITY-FUNDED RECAPTURED SALARIES AS "ADDITIONAL COMPENSATION"

Finally, another way that MWU supports research is through offering additional pay to faculty who receive grants which support "hard money" salary positions. When grant funds are exhausted the additional pay is eliminated. During FY2023, MWU paid out \$162,212 as "Additional Compensation" to faculty Principal Investigators on grants. This payment is available to all faculty who receive extramural funding for their research, subject to the ORSP's *Recaptured Salaries on Grants* policy.

FY23 ANNUAL REPORT

UNIVERSITY-FUNDED STUDENT SUPPORT POSITIONS BY CAMPUS

RESEARCH SUPPORT FOR STUDENTS IN DOWNERS GROVE, ILLINOIS		
ACTIVITY	NUMBER OF AWARDS	TOTAL FUNDING
RESEARCH POSTER PRINTING	181	\$4,822
TRAVEL TO PRESENT RESEARCH	36	\$21,401
FELLOWSHIPS#	54	\$219,000
TOTAL FUNDING IN SUPPORT OF STUDENT RESEARCH ACTIVITIES IN ILLINOIS		\$245,223

RESEARCH SUPPORT FOR STUDENTS IN GLENDALE, ARIZONA		
ACTIVITY	NUMBER OF AWARDS	TOTAL FUNDING
RESEARCH POSTER PRINTING	191	\$5,026
TRAVEL TO PRESENT RESEARCH	47	\$20,996
FELLOWSHIPS#	42	\$214,500
TOTAL FUNDING IN SUPPORT OF STUDENT RESEARCH ACTIVITIES IN ARIZONA		\$240,522

#Includes fellowships awarded in FY23, even though some payments are made in FY24.

ONE HEALTH STUDENT RESEARCH AWARDS

Investigator/s	Campus	Award	Proposal Title
Dean, M. (CCOM '25)	Downers Grove	One Health	The Role of miR-126a-5p on Cadmium-induced Generation of Reactive Oxygen Species and Apoptosis in Human Proximal Tubule Epithelial Cells
Myers, M. (CVM '24)	Glendale	One Health	Evaluation of the Impacts of Biological Sex and Diet-Induced Obesity on Ion Channel and mRNA Expression at the Hypoglossal Motoneurons in Mice

TOTAL ONE HEALTH STUDENT RESEARCH FUNDING: \$5,000

**TOTAL FUNDING IN SUPPORT OF STUDENT RESEARCH ACTIVITIES
ACROSS BOTH CAMPUSES IS \$490,767**

THE ORSP WEBSITE CAN BE FOUND AT:

<https://www.midwestern.edu/departments/office-of-research-and-sponsored-programs>

MWU FACULTY JOINT APPOINTMENTS

AZCOM

Layla Al-Nakkash	Aryeh Grossman	Sam Katzif	Christopher Olson	Heather Smith
Karen Baab	Wade Grow	Jason Kaufman	Matthew O'Neill	Mark Swanson
Nancy Bae	Margaret Hall	Laszlo Kerecsen	Pamela Potter	Kathryn Townsend
Thomas Broderick	Jose Hernandez	Chongwoo Kim	Anthony Peluso	Tony Tullo
Kimberly Bussey	Thu Huynh	Shaleen Korch	Michael Quinlan	Johana Vallejo-Elias
David Jon Carroll	Nafisa Jadavji	Lisa Kronstad	Parveen Ranjan	Gloria Yueh
Gerald Call	Garilyn Jentarra	Kathryn Lawson	Ann Revill	Mariah Kateland Zeigler
Jeremy Ellermeier	Nathan Johnson	Andrew Lee	Tobias Riede	
Robert Fintelmann	Douglas Jones	Kathryn Leyva	Minsub Shim	
Sunhindra Gadagkar	T. Bucky Jones	Kathleen Muldoon	Erin Simons	

AZCOPT

Karen Baab	Justin Georgi	T. Bucky Jones	Andrew Lee	Heather Smith
Nancy Bae	Fernando Gonzalez	Douglas Jones	Kathryn Leyva	Melissa Suckow
Aimee Beluch	Aryeh Grossman	Sam Katzif	Pamela Potter	Mark Swanson
Thomas Broderick	Wade Grow	Laszlo Kerecsen	Michael Quinlan	Kathryn Townsend
Gerald Call	Jose Hernandez	Shaleen Korch	Parveen Ranjan	Johana Vallejo-Elias
Daniel Deligio	Garilyn Jentarra	Kathryn Lawson	Erin Simons	

AZCPM

T. Bucky Jones	Laszlo Kerecsen	Kathleen Muldoon	Michael Quinlan	Yir Gloria Yueh
Jason Kaufman	Kathryn Leyva	Pamela Potter	Tony Tullo	

CCO

Hilal Arnouk	Sandra Inouye	Rafael Mejia-Alvarez	Sinju Sundaresan	Susan Viselli
Bryan Bjork	Phillip Kopf	Rebecca Ng	M. Swanson-Mungerson	Michael Volin
Pauline Kolker Buck	Kathy LePard	Natalie Nguyen	Julie Swartzendruber	Julie Williams
Nalini Chandar	Sean Lynch	Marsha Pierce	Martin Szul	
Joanna Goral	Alejandro Mayer	Maura Porta	Vaibhav Tiwari	
Kyle Henderson	Paul McCulloch	Luigi Strizzi	Renier Velez-Cruz	

CCOM

Hilal Arnouk	Joanna Goral	Richard Laddaga	Marsha Louise Pierce	Luigi Strizzi
Bryan Bjork	Jacalyn Green	Kathy LePard	Balbina Plotkin	Sinju Sundaresan
Thomas Bodenstine	William Hampton	Erin Leslie	Maura Porta	M. Swanson-Mungerson
Nalini Chandar	Kurt Heinking	Sean Lynch	Walter Prozialeck	Julie Swartzendruber
Mae Ciancio	Kyle Henderson	Alejandro Mayer	Prasanth Puthanveetil	Martin Szul
J. Wesley Cook	Sandra Inouye	Paul McCulloch	Cai Morgan Roberts	Vaibhav Tiwari
Joshua Edwards	Melanie Jessen	Rafael Mejia-Alvarez	Alexander Rosenberg	Maria Traka
Michael Ebeid	Lawrence Johnson	Orhay Mirzapolos	Frank Serrechia	Susan Viselli
Michael Fay	John Kasimos	William Moran	Ira Sigar	Michael Volin
Michele Fornaro	Phillip Kopf	Kathleen O'Hagan	Erin Stephenson	Robin Zavod

CDMA

Layla Al-Nakkash	Fernando Gonzalez	Douglas Jones	Kathryn Lawson	Heather Smith
Karen Baab	Wade Grow	T. Bucky Jones	Andrew Lee	Mark Swanson
Nancy Bae	Margaret Hall	Sam Katzif	Kathryn Leyva	Kathryn Townsend
Gerald Call	Jose Hernandez	Jason Kaufman	Pamela Potter	Johana Vallejo-Elias
Justin Georgi	Garilyn Jentarra	Shaleen Korch	Michael Quinlan	Gloria Yueh

MWU FACULTY JOINT APPOINTMENTS

CDMI

Hilal Arnouk
Bryan Bjork
Nalini Chandar
Mae Ciancio
Michael Ebeid
Joshua Edwards
Michael Fay

Michele Fornaro
Joanna Goral
Eric Gorscak
Jacalyn Green
Kyle Henderson
Sandra Inouye
Phillip Kopf

Kathy LePard
Erin Leslie
Sean Lynch
Alejandro Mayer
Paul McCulloch
Rafael Mejia-Alvarez
Balbina Plotkin

Maura Porta
Janey Prodoehl
Kyle Ramsey
Fred Romano
Ira Sigar
Luigi Strizzi
M. Swanson Mungerson

Julie Swartzendruber
Vaibhav Tiwari
Susan Viselli
Michael Volin

CGS

Mark Acierno
Shridhar Andurkar
Clemence Chako
Tamer Elbayoumi

Christian Evans
Vanthida Huang
Melanie Jordan
Medha Joshi

Rachael Kreisler
Jung Keun Lee
Weidang Li
John Mitchell

Ogi Okwumabua
Mark Olsen
Byron Russell
Marc Scheetz

Charles Veltri
Volkmar Weissig
Kathryn Wycislo
Mingyi Yao

CHS-DG

Bryan Bjork
Thomas Bodensline
Mae Ciancio

Michelle Fornaro
Phillip Kopf
Alejandro Mayer

Marsha Pierce
Barbara Plotkin
Prasanth Puthanveetil

Alexander Rosenberg
Michael Settecase
Erin Stephenson

Julie Swartzendruber
Susan Viselli
Michael Volin

CHS-GD

Layla Al-Nakkash
Karen Baab
Thomas Broderick
Lori Buhlman

Gerald Call
Justin Georgi
Fernando Gonzalez
Wade Grow

Douglas Jones
T. Bucky Jones
Shaleen Korch
Katherine Mitzel

Kathleen Muldoon
Matthew O'Neill
Michael Quinlan
Tobias Riede

Heather Smith
Johana Vallejo-Elias

CPDG

Thomas Bodensline
Jacalyn Green
Kyle Henderson
Sean Lynch

Alejandro Mayer
Paul McCulloch
Barbara Plotkin

Maura Porta
Walter Prozialeck
Prasanth Puthanveetil

Amaresh Ranjan
Sinju Sundaresan
Vaibhav Tiwari

Renier Velez-Cruz
Michael Volin

CPG

Thomas Broderick
Fernando Gonzalez

John Hnida
Sam Katzif

Chongwoo Kim
Kathryn Leyva

Michael Quinlan
Mark Swanson

Johana Vallejo-Elias

CVM

Layla Al-Nakkash
Thomas Broderick
Lori Buhlman
Gerald Call
Delrae Eckman
Mitra Esfandiarei
Sudhindra Gadagkar
Justin Georgi
Fernando Gonzalez
Aryeh Grossman
Wade Grow

Nicholas Haley
Margaret Hall
Christopher Heesy
John Hnida
Vanthida Huang
Elizabeth Hull
Nafisa Jadavji
Nathan Johnson
Carleton Jones
Douglas Jones
T. Bucky Jones

Sam Katzif
Laszlo Kerecsen
Shaleen Korch
Lisa Marie Kronstad
Andrew Lee
Kathryn Leyva
Leigha Lynch
Kathleen Muldoon
Jeffrey Norris
Christopher Olson
Matthew O'Neill

Pamela Potter
Michael Quinlan
Ann Revill
Tobias Riede
Jose Rodriguez Sosa
Byron Russell
Erin Simons
Heather Smith
Scott Soby
Julie Swartzendruber
Kathryn Townsend

Felicia Trembath
Johana Vallejo-Elias
Brian Wellensiek
Mariah Zeigler