

UK COLLEGE OF HEALTH SCIENCES
OFFICE OF RESEARCH AND SCHOLARSHIP



Inspiring Innovation
Annual Report

7.01.22 - 10.31.23



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EXECUTIVE SUMMARY

In the strategic planning process, the UK College of Health Sciences (CHS) envisioned pulling together scientists, clinicians, and scholars to develop innovative solutions to the vexing challenges facing Kentucky. We also cast a vision of intentional efforts to improve the inclusion of historically under-represented groups within all aspects of research, scholarship, and education, and we recognized the need to be at the forefront of employing novel methods of instruction to future health care workers and scientists. The plan was broad and bold. This 15-month report pauses to reflect upon the ways the CHS Office of Research and Scholarship is living into our strategic plan. We have:

- **Diversified and deepened federal grant support:** Our federal funding base grew from \$1.4 million (two federal agencies) in 2013 to \$8.2 million (seven federal agencies) in 2023. Just as significantly, the number of CHS faculty who received federal grant awards rose from five in 2013 to 14 in 2023.
- **Reinvested F&A enrichment funds:** Through the Research and Scholarship Support Program and two equipment grant competitions, ORS has reinvested \$143K generated from research and scholarship back into research and scholarship.
- **Demonstrated commitment to health equity:** ORS and UK's UNited In True racial Equity (UNITE) Research Priority Area worked together to award a \$16K pilot grant to improve health equity in Kentucky.
- **Promoted the Scholarship of Teaching and Learning (SoTL):** ORS has served as a proud partner and sponsor of the SoTL Faculty Learning Community to strengthen the instruction of future health care workers and scientists.
- **Refined a pathway to the marketplace:** ORS partnered with the UK Office of Technology Commercialization to award a \$15,000 grant to support faculty innovators as they move their discovery to the marketplace.

This report also celebrates CHS faculty success. Faculty continue to excel in an increasingly complex and competitive grant environment. Remarkably, the overall value of the college's extramural grant portfolio currently exceeds \$44.7 million!

Next year promises to be a time of transition. Project GATeWAY for Grants Administration Transformation will fundamentally change UK's approach to grant administration. ORS stands ready to integrate into the university's new infrastructure as we simultaneously refine and expand our services. We look forward to continued growth in the next year! ■

BY THE NUMBERS

TOTAL AWARD DOLLARS

FY2023 **\$9.1M** FY2024 (YTD) **\$8.4M**

507% Growth from FY2013

GRANT PROPOSALS

FY2023 Grant Proposals

55

FY2022 Proposal Yield Rate

34%

GRANT EXPENDITURES

FY2023

\$8.5M

Growth from FY2013

296%

GRANT PORTFOLIO

Current Total Value

\$44.7M

RESEARCH AND SCHOLARSHIP SUPPORT PROGRAM

The College of Health Sciences' Office of Research and Scholarship (ORS) demonstrated a strong commitment to helping new, early stage, and established investigators successfully compete for research funding and achieve scholarly success. This new program provides a rapid response to investigators' needs for projects with a high potential for success if given the right pilot data. It also supports the development and dissemination of relevant scholarly products. To date, the Research and Scholarship Support Program has enthusiastically supported the following studies.

Developing Life-Long Learners: Utilizing Book Clubs as Structured Assignments in Undergraduate Courses

Christy Brady, PhD, Assistant Professor, Clinical Leadership and Management; Sarah Kerckmar, PhD, MHA, Associate Professor, Clinical Leadership and Management; Sarah Cprek, PhD, MPH, Assistant Professor, Department of Health, Behavior, & Society, College of Public Health; and, Anne Ray, PhD, MEd, Associate Professor, Department of Health, Behavior, & Society, College of Public Health

Shared reading experiences have been shown to increase student engagement and learning and effectively build intellectual communities within classrooms. This study examines whether a shared reading experience in the form of "book club" style assignments has additional benefits both within and beyond the classroom. Using a survey, the study explores whether students are more likely to do the reading for a book club assignment than a textbook reading, and it will query whether student learning extends beyond the classroom.

Validation of Non-Invasive Muscle Imaging Biomarkers for Knee Osteoarthritis

Christopher Fry, PhD, Associate Professor, Athletic Training and Clinical Nutrition

Knee osteoarthritis is a leading cause of disability among older adults. A critical first step to advance patient care is the development of non-invasive muscle biomarkers to define muscle dysfunction unique to this population. The objective of this clinical observation study is to validate non-invasive MRI measurements with validated assessment of muscle quality and fiber size obtained from aligned quadriceps biopsies. Further, this study will determine the relationship between non-invasive measures of muscle quality to strength and physical performance in persons with knee osteoarthritis.

RESEARCH AND SCHOLARSHIP SUPPORT PROGRAM (CONTINUED)

The Impact of Interprofessional Education on Professional Collaboration

Christen Page, PhD, CCC-SLP, Assistant Professor, Communication Sciences and Disorders

Person-centered care or integrating the 'person' within healthcare decisions and ensuring the most holistic care is at the heart of interprofessional collaborative practice (IPCP). Development of skills for IPCP must begin in the classroom through interprofessional education (IPE) in which students learn about, with and from other disciplines. Using a quasi-experimental design, this study investigates implementation and attitudes of interprofessional collaborative practice (IPCP) in 182 graduates from Eastern Kentucky University who participated in an interprofessional education (IPE) experience prior to graduation.

Qualitative Data Science - Exploration of Preceptor Feedback for Health Professions Learners

Leslie Woltenberg, PhD, Associate Professor, Shelley Irving, MSPAS, PA-C; Isaac Joyner, MPH, Program Coordinator, Physician Assistant Studies

It is widely accepted in health professions education that preceptor feedback is a valuable part of the students' formative learning experience. However, there is a paucity of literature around effective utilization of such feedback. Using text analysis software to evaluate qualitative data from the Preceptor Evaluation of Student Performance tool collected over three academic terms (n=1242), this study explored and described qualitative themes in preceptor feedback, investigated signals in the data regarding board exam task areas, and identified opportunities to support student achievement learning outcomes.

CHS EQUIPMENT GRANTS

The Office of Research and Scholarship supported research labs and investigators by making significant investments in research equipment. This state-of-the-art equipment enhances the College's capacity to successfully compete in an increasingly complex and competitive extramural research funding environment.

FY2024

Delsys NeuroMap and Electromyography System

Christopher Fry, PhD, Associate Professor, Athletic Training and Clinical Nutrition, Brian Noehren, PT, PhD, FACSM, Associate Dean for Research, Professor

This technology gives researchers the ability to make direct comparisons between molecular changes and actual neuromuscular function after a traumatic knee injury. This technology means that investigators can evaluate multiple motor units during tasks such as strength training, walking, and running.

Remark Office OMR Software

Emily Gabriel, PhD, ATC, Lecturer, Athletic Training and Clinical Nutrition

This software allows research teams to quickly scan and record the data from research. The software can read barcodes, show a visual of multiple marks or cross-outs, and show visuals of hand-written data. This software significantly reduces the risk of data entry errors and can be extremely useful for long surveys and large numbers of surveys to reduce the burden of entering the data.

BIOPAC MP160 Data Acquisition Hardware System and iMotions Module Software

Keiko Ishikawa, PhD, MM, CCC-SLP, Richard Andreatta, PhD, ASHA FELLOW, Communication Sciences and Disorders

This technology enhances the lab's capability to conduct more comprehensive psycho-physiological research in speech and vocalization in various research settings, from controlled lab environments to dynamic field studies.

Butterfly IQ+ Ultrasound Transducers (4 units)

Andy Williford, MSPAS, PA-C, Assistant Professor, Leslie Woltenberg, PhD, Associate Professor, Joshua Burkhart, MSPAS, PA-C, Assistant Professor, Physician Assistant Studies

These Butterfly IQ+ Point-of-Care Ultrasound devices are portable and will be issued to students in specified clinical rotations so images can be captured and documented for study. The software attached to the Butterfly IQ (Butterfly Cloud) allows image capture in an encrypted and de-identified manner and capture of the student's medical assessment based on these images.

CHS EQUIPMENT GRANTS (CONT)

FY2023

The DigiGait™ System

Christopher Fry, PhD, Associate Professor, Athletic Training and Clinical Nutrition

The DigiGait employs high-speed ventral plane videography instrumentation to perform gait analysis of mice and rats over a range of walking and running speeds. This system supports gait analysis in laboratory animals (mouse and rat) with direct translation to human gait and biomechanics assessment, furthering the mission of the Center for Muscle Biology to integrate basic, clinical and translational research on muscle.

The Y-Balance Test

Emily Gabriel, PhD, ATC, Lecturer, Athletic Training and Clinical Nutrition

The Y-Balance Test is used to assess dynamic postural control. It will be used to continue a research project titled "Predictors of Participation in a Home-Based Injury Prevention Program in Those with a History of Ankle Sprain" that is funded through the Southeast Athletic Trainers' Association. This study determines the predictors of adherence to the home-injury prevention program.

Ultimaker S5 3D Dual-Extruder Printer

Patrick Kitzman, PT, PhD, Professor, Physical Therapy; Mary Jo Cooley Hidecker, PhD, MA, MS, CCC-A/SLP, Associate Professor, Judith L Page, PhD, CCC-SLP, FASHA, FNAP, Professor, Janine Schmedding-Bartley, PhD, CCC-SLP, Assistant Professor, Richard Andreatta, PhD, ASHA FELLOW, Professor, Communication Sciences and Disorders; Ming-Yuan Chih, PhD, ACHIP, FAMIA, Associate Professor, Human Health Sciences

The dual-extruder 3D printer upgrades the complexity of rehab projects the UK Rehab MakerSpace team can design, manufacture, and test for usability by individuals who have multiple concurrent disabilities including fine motor, sensorimotor, mobility deficits, cognitive challenges, and/or difficulties with communication.

Novel Loadsol Pros (12 Pairs)

Danielle M. Torp, PhD, ATC, Assistant Research Professor, Matthew Hoch, PhD, ATC, Associate Professor, Kyle Kosik, PhD, ATC; Assistant Research Professor, and, Nick Heebner, PhD, ATC, Associate Professor, Athletic Training and Clinical Nutrition

The Novel Loadsol Pros expands the research team's understanding of musculoskeletal overuse injuries in military service members and the general population. The additional data provided by the Loadsol Pros will allow the team to identify modifiable mechanistic risk factors to target during rehabilitation.

CHS EQUIPMENT GRANTS (CONT)

Vald ForceFrame™

Joshua Winters, PhD, CSCS, Associate Professor, Nicholas Heebner, PhD, ATC, Associate Professor, Tatiana Djafar, MS, Research Assistant Professor, Athletic Training and Clinical Nutrition

The ForceFrame™ is a portable isometric strength testing system that gives researchers at the Sports Medicine Research Institute the ability to evaluate the effects that a musculoskeletal (MSK) injury may have on muscle function, specific to the location of injury, or to identify potential mechanisms that may be linked to altered running mechanics. Collecting injury-specific strength data with biomechanical outcomes will significantly enhance the clinical translation of SMRI's current data.

COLLEGE OF HEALTH SCIENCES/UNITE PILOT GRANT

The Office of Research and Scholarship and UNited In True racial Equity (UNITE) Research Priority Area introduced a new collaborative funding opportunity in 2023. We sought grant applications for a pilot project with the potential to improve health equity in Kentucky. We were particularly interested in funding projects within the College of Health Sciences' major areas of research and scholarship, including aging and frailty, applied nutrition and metabolism, health services, human performance, injury prevention, neuromotor and sensory performance, rehabilitation, and voice and language disorders. After a competitive grant process, we selected:

Sheila Clemens, PT, MPT, PhD, Assistant Professor, Physical Therapy, Amandi Rhett, CPO, PhD, LPO, Baylor College of Medicine, Cody McDonald, CPO, PhD, University of Washington, Jacqueline Siven, PhD, MA, MPH, Centers for Disease Control and Prevention

Exploring functional recovery and the lived experience of underrepresented urban and rural populations with dysvascular lower limb amputation: A mixed-methods pilot study

The overall objective of this study is to contribute new and vital information to the amputation literature regarding the lived experiences of prosthetic leg wearers who identify as Black/African American, and interpreting any relationships to functional recovery and quality of life. This study will comprehensively address the gaps in knowledge by performing semi-structured interviews with up to 20 prosthetic limb users who identify as Black, living in both urban and rural environments, while also collecting quantitative data examining functional mobility with a prosthetic limb.

SCHOLARSHIP OF TEACHING AND LEARNING FACULTY LEARNING COMMUNITY (SOTL) FLC

Inaugural members of the SoTL FLC (1.0) participated in SoTL workshops in Fall 2022 and have been working on SoTL projects over the past year. With support from the Center for Teaching and Learning (CELT), these CHS faculty scholars are pursuing a variety of fascinating research endeavors: influence of COVID-19 pandemic on student test anxiety, emotional intelligence educational intervention to reduce burnout in health care professions students, validation of a telehealth assessment tool for clinical education and application, gamification and active learning strategies for instruction of medical laboratory science, competency attainment among DPT students in a pro bono clinic, and team building for effective problem-based learning in the classroom. The 2.0 SoTL FLC cohort has been engaged in SoTL sessions throughout the Fall 2023 semester and look forward to SoTL project development in Spring 2024.

- **FLC 1.0 members:** Janine Bartley (CSD), Catherine Gohrband (PT), Hannah Hoch (AT), Sarah Kercksmar (CLM), Joneen Lowman (CSD), Peter Meulenbroek (CSD), Chris Swartz (MLS), Mollie Taylor (RHB), Cheryl Vanderford (PAS), Jami Warren (HHS), Leslie Woltenberg (PAS)
- **FLC 2.0 members:** Carrie Baker (AT), Sharlee Burch (CLM), Mona Carper (PT), Karen Clancy (CLM & HHS), Katie Goldey (HHS), Kara Lee (PT), Denise O'Dell (PT), Christen Page (CSD), Amy Sayre (CSD), Ashley Vowels (HHS), Heather Witt (PT)
- **SoTL FLC Leadership Team:** Janine Bartley (CSD), Trey Conatser (CELT), Jill Abney (CELT), Madeline Aulisio Miller (CELT), Leslie Woltenberg (PAS)

NEW EXTRAMURAL GRANT AWARDS*

FY2024 (YTD)

Karen Badger, PhD, MSW

UK/CCDD - Public Policy, Communications and Advocacy Project

KY Council on Developmental Disabilities

The College of Health Sciences at the University of Kentucky will provide policy, advocacy and communication resources to the leadership and staff of the Commonwealth Council on Developmental Disabilities. In collaboration with CCDD leadership, this project will provide the personnel needed to execute the required educational and information dissemination activities.

Award: \$238,188

Esther Dupont-Versteegden, PhD

Muscle and Physical Function Recovery after Acute Respiratory Failure

National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of General Medical Sciences

The overall goal of this clinical observational study is to determine cellular processes of the underlying failure to recover muscle function and understand the relationships between the presence of dysfunctional cellular mechanisms with physical dysfunction in survivors of critical illness.

Award: \$450,428

Nicholas Heebner, PhD, ATC

Performance and Job Task Demands of Special Tactics Support Airmen

Air Force Research Laboratory

This project will develop an occupational task analyses, physical assessment, and intervention selection framework to enable AFSOC and USAF commands to quantify the physical capacities required for specific occupational specialties that would be needed to inform physical readiness standards and develop military occupational specialties-specific physical readiness training program tailored for these warfighters.

Award: \$3,400,000

NEW EXTRAMURAL GRANT AWARDS (CONT)

Patrick Kitzman, PT, PhD

Coordination and Assisting the Reuse of Assistive Technology: (CARAT) KY Appalachian Rural Rehabilitation Network (KARRN) Mobile Program

Commonwealth Council on Developmental Disabilities

This project will develop and test a mobile version of the existing CARAT-TOP (Coordinating and Assisting the Reuse of Assistive Technology-Together One Priority) program. The mobile program will conduct short interactive experiences in school settings. These hands-on experiences will be designed to teach middle and high school students of all abilities about the importance of play, accessibility and inclusion.

Award: \$61,382

Kyle Kosik, PhD, ATC

Revealing the progression of pain pathways and identifying chronification of pain predictors after an isolated lateral ankle sprain: Project RECOIL

Army Medical Research and Development Command

This study aims to prospectively identify the prevalence of chronic ankle pain after a lateral ankle sprain and examine its relationship with healthcare utilization patterns, subsequent musculoskeletal injury, and the development of new co-comorbidities. Secondly, the study will identify the susceptibility and resiliency factors underlying the transition from acute to chronic pain by prospectively assessing pain-generating pathways, clinician-based outcomes, and patient-reported outcomes after a lateral ankle sprain.

Award: \$1,066,469

Anne Olson, PhD, CCC/A AUDIOLOGIST

Scholarships for Disadvantaged Students: SUCCESS in Speech-Language Pathology

Health Resources and Services Administration

SUCCESS leverages and augments our existing infrastructure, expertise, and retention resources to increase diversity in Kentucky's speech-language pathology workforce.

Award: \$640,439

NEW EXTRAMURAL GRANT AWARDS (CONT)

Molly Taylor, MS, LAT, ATC (Mentor: Johanna Hoch, ATC, PhD)

An Emotional Intelligence Educational Intervention to Reduce Burnout in Healthcare Profession Students: A Pilot Study

NATA Research & Education Foundation

This longitudinal quasi-experimental intervention study will determine the effect of a brief educational workshop and reflection practice on emotional intelligence and burnout in healthcare profession (HCP) students and compare the efficacy of this workshop between clinically-active and non-clinically active HCP students.

Award: \$2,500

Virginia Valentin, DRPH, PA-C

An Analytic Approach to Examining the Relationship between State Scope of Practice Reforms and Physician Assistant Labor Demand

American Academy of Physicians Associates

The objective of this study is to increase the understanding of the impact of state scope of practice laws on physician assistant job availability by state, employer type and geographic region while controlling for a robust set of covariates.

Award: \$27,778

Cheryl Vanderford, MPAS, PA-C

Pathway to a Healthier Kentucky through Expansion of MAT Waiver Training

Substance Abuse & Mental Health Services Administration

This SAMHSA project adds additional training to the Physician Assistant Studies curriculum to include completion of 24 hours of MAT waiver training prior to graduation, standardized patient simulations prior to students' clinical year, and expand training to our alumni, faculty, and preceptors.

Award: \$125,915

FY2023 (YTD)

Deirdre Dlugonski, PhD

Connected for Movement: University, Community, and School Partnerships to Disrupt Inequity in Physical Activity and Health

Women's Sports Foundation

This innovative program model links University resources, health-promoting community professionals and organizations, and school partners in a strategic model with the goal of improving physical activity and the associated mental and physical health benefits for girls.

Award: \$9,576

NEW EXTRAMURAL GRANT AWARDS (CONT)

Deirdre Dlugonski, PhD

Connected for Movement Outreach Program

KY Department for Public Health

Connected for Movement will promote health equity in Kentucky by linking UK resources with community and school partners. The goal of this strategic program model is to increase physical activity and improve mental and physical health outcomes for youth in Kentucky. The project will identify the health needs of school partners and then match community resources to meet these goals.

Award: \$160,163

Christopher Fry, PhD

Rejuvenation of Skeletal Muscle Regeneration in Patients with Kidney Disease

Albert Einstein College of Medicine

The Fry laboratory will oversee data collection and analysis of data from skeletal muscle single cell RN sequencing and primary cell culture experiments using tissue collected from patients with chronic kidney disease and end-stage renal disease and in selected controls.

Award: \$30,000

Emily Gabriel, PhD, ATC

Predictors of Participation in a Home-Based Injury Prevention Program in Those with a History of Ankle Sprain

Southeast Athletic Trainers Association

This study will determine factors associated with observance of a home-based injury prevention program focusing on ankle sprains. Also, this study will examine the attitudes towards participation in injury prevention, health-related quality of life, range of motion, strength, postural control, and function.

Award: \$808

Phillip Gribble, PhD, ATC, FNATA

Safety, Health, and Injury Mitigation in Firefighter Training (SHIFT)

Federal Emergency Management Agency

The purposes of this study are to examine specific mechanisms of musculoskeletal injury sustained by firefighters during occupational and physical training activities and explore the role that health care practitioners have on improving care for these injuries.

Award: \$376,116

NEW EXTRAMURAL GRANT AWARDS (CONT)

Nicholas Heebner, PhD, ATC

Marines SpeCial Operations PrEparedness (M-SCOPE)

Office of Naval Research

The overall objective of this project is to improve the application, feasible implementation, and relevancy of the newly developed MSCOPE system to maximize the benefit of health and human performance data for all end-users.

Award: \$2,409,378

Matt Hoch, PhD, ATC

Visual-Motor Coordination Assessments for Patients with Chronic Ankle Instability

Army Medical Research and Materiel Command

This study will provide patients with chronic ankle instability (CAI) with visual-motor coordination (VMC) assessments that can be used as decision support for returning to duty. The VMC assessments will highlight a full spectrum of impairments associated with injuries related to CAI.

Award: \$1,494,315

Michaela Keener

Multi-Sensor Occupation Specific Energy Expenditure Models for Race Riders

University of Cincinnati

This study will help to develop a multi-sensor system to predict reliable energy expenditure while exercising with live horses. This system will be used to predict energy expenditures with the combination of kinetic and kinematic data.

Award: \$6,671

Patrick Kitzman, PT, PhD

KATS Hazard Appalachian Center for Assistive Technology

KY Department of Vocational Rehabilitation

The Appalachian Center for Assistive Technology (ACAT) will establish an Assistive Technology Resource Center (ATRC) to serve the disability population in eastern Kentucky. This goal will be achieved through education, demonstration and loan of assistive technology. A space will be established to allow for the adaptive equipment to meet the needs of the disabled individuals. The ACAT will also serve as a training site for professional students.

Award: \$139,441

NEW EXTRAMURAL GRANT AWARDS (CONT)

Patrick Kitzman, PT, PhD

Toys with A Purpose: Adapted Toy Lending Library

WHAS Crusade for Children

The goal of the new Toys with a Purpose adapted toy lending library is to support child development and promote play through access to free adapted toys, devices, and educational materials.

Award: \$5,300

Patrick Kitzman, PT, PhD

Coordination and Assisting the Reuse of Assistive Technology: (CARAT) KY Appalachian Rural Rehabilitation Network (KARRN) Mobile Program

Commonwealth Council on Developmental Disabilities

This project will develop and test a mobile version of the existing CARAT-TOP (Coordinating and Assisting the Reuse of Assistive Technology-Together One Priority) program. The mobile program will conduct short interactive experiences in school settings. These hands-on experiences will be designed to teach middle and high school students of all abilities about the importance of play, accessibility and inclusion.

Award: \$61,398

Kate Kosmac, PhD

BEET Root Juice to Reverse Functional Impairment in PAD: The BEET PAD Trial

Northwestern University

As a co-investigator in the BEET PAD TRIAL (Northwestern University, PI: Mary McGrae McDermott, MD), Dr. Kosmac and Peterson's laboratory will measure changes in capillary density, satellite cell abundance, and central nuclei in calf muscle biopsy specimens obtained from participants randomized in Chicago who consent to muscle biopsy.

Award: \$10,207

Kirby Mayer, DPT, PhD

Cellular and Physical Function Outcomes Leading to Failed Muscle Recovery After Critical Illness

National Institute of Arthritis and Musculoskeletal and Skin Diseases

The findings of this study will determine which cellular properties of skeletal muscle and clinical factors after critical illness are related to physical function.

Award: \$149,146

NEW EXTRAMURAL GRANT AWARDS (CONT)

Brian Noehren, PT, PhD, FACS

Leveraging Wearables to Transform Patient Recovery after Tibial Fracture Surgery

National Institute of Arthritis and Musculoskeletal and Skin Diseases

The overarching goal of this work is to generate the knowledge base and tools that will enable the team to reimagine and elevate the standard of care for individuals after tibial shaft fracture surgery by monitoring and managing tibial bone forces in daily life.

Award: \$633,593

Anne Olson, PhD, CCC/A AUDIOLOGIST

Scholarships for Disadvantaged Students: SUCCESS in Speech-Language Pathology

Health Resources and Services Administration

SUCCESS leverages and augments our existing infrastructure, expertise, and retention resources to increase diversity in Kentucky's speech-language pathology workforce.

Award: \$640,073

Meredith Owen, PhD (Mentor: Brian Noehren, PT, PhD)

The Relationship Between Muscle Quality and Joint Loading in Persons with Lower Limb Amputation

National Institute of Child Health and Human Development

This study will focus on assessing the muscle quality of the thigh and predict the relationship with the thigh muscle quality and muscle strength. The project will also examine the relationship between muscle quality, muscle strength, and knee joint loading for individuals with lower limb amputation.

Award: \$69,080

Charlotte Peterson, PhD

Fisetin to Reduce Senescence and mobility impairment in PAD: The FIRST Pilot Randomized Trial

Northwestern University

As a site Co-Principal Investigator in the FIRST Study (Northwestern University, PI: Mary McGrae McDermott, MD) Dr. Peterson's laboratory will measure quantities of senescent associated secretory phenotype (SASP) markers in adipose tissue and skeletal muscle specimens at the RNA level.

Award: \$19,400

NEW EXTRAMURAL GRANT AWARDS (CONT)

Debra Suiter, PhD, CCC-SLP, BCS-S, F-ASHA

Dysphagia: In Search of a United Definition for the Aging Population

National Institute on Aging

This conference will provide uniformity in the literature and throughout the healthcare landscape, driving informed decision-making, diagnostic accuracy, targeted treatment and early prevention of dysphagia in aged persons. Following, the conference findings will help to reduce the burden of complications and, in turn, healthcare costs.

Award: \$49,015

Virginia Valentin, DRPH, PA-C

Promoting Resilience and Mental Health Among Health Professional Workforce

University of Utah

The purpose of this program is to provide support to entities providing health care to promote resilience and wellness. The project will expand to resilience training to regional rural clinics, while taking into consideration underserved communities. The goal of the program is for health care organizations to adopt, promote, and demonstrate a culture of wellness that includes resilience for the professional health workforce.

Award: \$7,335

Cheryl Vanderford, MPAS, PA-C

2023 Communities Talk to Prevent Alcohol and Other Drug Misuse

Substance Abuse & Mental Health Services Administration

This initiative will educate communities about the consequences of alcohol and other drug misuse, empower communities to use evidence-base approaches to reduce alcohol and other drug misuse, and mobilize communities and substance use prevention initiatives at the local, state, and national levels.

Award: \$750

Yuan Wen, MD, PhD

Contribution of Ribosome Specialization to the Pathophysiology of Muscular Dystrophy

National Institute of Arthritis and Musculoskeletal and Skin Diseases

Muscular dystrophy is a debilitating genetic disorder characterized by progressive loss of muscle function. There is currently no cure and the only effective therapy to delay functional loss is glucocorticoid steroid therapy. The proposed project will investigate a novel mechanism of ribosome specialization as a contributor to the pathogenesis of muscular dystrophy with the aim of developing additional therapies for the disease.

Award: \$116,970

NEW EXTRAMURAL GRANT AWARDS (CONT)

Joshua Winters, PhD, CSCS

Improving Psychological and Vestibular Health in People with Mild Traumatic Brain Injury (mTBI), Using a Novel Intervention Technology: the Making INformed Decisions in Gaze and Postural Stability (MINDGAPS) System

University of Montana

The MINDGAPS system will utilize wearable sensor technology to measure gaze and postural stability, as well as leveraging data to compare patient data to baseline results. This study is designed to examine the efficacy of the MINDGAPS system, and its feasibility of practice in remote/telehealth fields.

Award: \$73,000

**In addition to the new awards delineated above, the College of Health Sciences received \$5M in adjustments to existing grant accounts in FY2023 and FY2024.*