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2024

Internal Funding Newsletter, Academic Year 2023-2024

UNO Office of Research and Creative Activity

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INTERNAL FUNDING BULLETIN

2023-2024

Faculty and Student Research and Creative Activity

DEAR COLLEAGUES AND FRIENDS,

The University of Nebraska at Omaha is committed to providing students and faculty unique, hands-on opportunities, internships, service learning, applied research, and other collaborative activities that enhance time in and out of the classroom. The 2023-2024 Academic Year saw many exciting opportunities for us to invest into even more programs promoting research and creative activity. This year's programs provided over \$800,000, more than double the funding in 2022-2023, for student and faculty projects.

This year's projects reflect the broad range of scholarly interests of the UNO community, including improving the measurement of sex trafficking victimization among a national sample of adults, the relationship between physical activity and screen time among Nebraska preschoolers, the effects of chronic CBD exposure in juvenile zebrafish, the role of women in developing the West, long-term climate impact on groundwater in Nebraska, and the implications of preserving and adapting religion and culture in the modern era.

This past year, the Fund for Undergraduate Scholarly Experiences (FUSE) and Graduate Research and Creative Activity (GRACA) programs funded 142 students to complete faculty mentored research and creative activity projects. We look forward to seeing the results of these projects showcased at the 17th Annual Student Research and Creative Activity Fair on April 11, 2025, and we invite you to save the date.

Faculty internal funding opportunities through our office provide support to develop new contacts and cooperate with academic peers locally, nationally, and internally. The products of faculty research and creative activity are used to address real-world issues and are presented in peer-reviewed literature and around the world at meetings, conferences, and performances. ORCA programs give UNO faculty the opportunity to attract resources from outside the university to make scholarly activities sustainable over the long term.

Assistant Vice Chancellor Kristin Girtten has continued to support our internal funding programs by promoting the programs and working with faculty and students to increase participation across UNO's broad disciplines.

We hope to continue expanding the types of projects supported by internal funds.

Finally, we are excited to introduce the UNO Research and Creative Activity High School Internship Program in the coming academic year. This program funds high school interns to work on faculty members' research and/or creative endeavors and rewards faculty for the mentoring they provide their interns.

We look forward to working with you over the next year as you explore your interests and contribute your talents to UNO.

Best Regards,



Dr. Sara Myers

Associate Vice Chancellor for Research and Creative Activity



FACULTY UCRCA

The purpose of the University Committee on Research and Creative Activity (UCRCA) is to expand the capacity for research and creative activity at UNO. The UCRCA supports all areas, types, and disciplines of research and activity by pre- and post-tenure faculty at UNO. The committee places special emphasis on seed grant funding that potentially leads to external funding and on grants to new faculty to help their programs of research/creative activity.

| PI Last | PI First | College | Dept | Title | Awarded |
|-----------------|-----------|---------|-------|--|----------|
| Anderson | Frances | CEHHS | TED | <i>Mathematics Capital in Mathematics Education: Continued Studies to Analyze Mathematics Capital Longitudinally</i> | \$10,000 |
| Carmody | Teresa | CFAM | SOA | <i>Today Must Be Sunday</i> | \$2,000 |
| Eikenberry | Angela | CPACS | PA | <i>Unveiling the Origins and Context of U.S. Perpetual Charitable Foundations Wealth</i> | \$10,000 |
| Guo | Lei | CFAM | COMM | <i>Journalists in Exile: A Study of the Impact of Emotional Experience Among Afghan Reporters in Pakistan</i> | \$8,682 |
| Johanningsmeier | Charles | CAS | ENGL | <i>Exporting American Literature via Leipzig, Germany: The Tauchnitz Edition, 1841-1943</i> | \$5,000 |
| Kulig | Teresa | CPACS | CJUS | <i>Improving the Measurement of Sex Trafficking Victimization among a National Sample of Adults</i> | \$10,000 |
| Mangalam | Madhur | CEHHS | BMCH | <i>Harnessing Non-Gaussian Patterns in HRV: Precision Forecasting of Cardiovascular Diseases</i> | \$10,000 |
| Robbins | Travis | CAS | BIOL | <i>Climate change and the evolutionary potential of peripheral populations</i> | \$9,986 |
| Schenkelberg | Michaela | CEHHS | HK | <i>Physical Activity and Nutrition Behaviors of Young Children with Down Syndrome: A Pilot and Feasibility Study</i> | \$2,000 |
| Wilcoxon | Christina | CEHHS | TED | <i>The Beginning Teacher: Effective Aspects of Induction</i> | \$9,840 |
| Zhu | Mia | CAS | PSYCH | <i>A Dynamic Exploration of Employee Recovery Processes: Influences on Employee Well-being and Job Performance</i> | \$9,800 |

Total Awards: \$87,308

FACULTY AWARD WINNER

Dr. Mark Gilbert, School of the Arts

2023 Award for Distinguished Research or Creative Activity

The Award for Distinguished Research or Creative Activity (ADROCA) recognizes and honors preeminent achievement in research or creative activity by full-time members of the Graduate Faculty at the University of Nebraska at Omaha, whose work is of sufficient originality and distinction to merit attention at the national level, or beyond. ADROCA recipients foster and enhance the quality of research and creative activity at the University while reaffirming the values of discovery, innovation, and fulfillment in scholarship and the arts.

Dr. Mark Gilbert is a highly accomplished artist, teacher, and researcher whose work has redefined the relationship between art and medicine. After graduating from the Glasgow School of Art in 1991, he embarked on a career that would blend his artistic talents with medical and healthcare contexts. With a focus on art-based research, Gilbert's interdisciplinary approach has shed new light on the patient and caregiver experience of illness, recovery, and care. His extensive research endeavors have explored the profound impact of portraiture as a means of communication, providing unique insights into healthcare contexts. Notably, he worked on groundbreaking projects such as *Saving Faces* at The Royal London Hospital and *Portraits of Care* at the University of Nebraska Medical Center (UNMC). Through his dedication and innovative methodologies, Gilbert has become a leading figure in the field, inspiring critical conversations and transforming our understanding of the intersection of art and medicine.

The impact of Gilbert's research extends far beyond the confines of academia. His artworks and research have been widely exhibited across Europe and the United States, captivating audiences with their thought-provoking narratives. Through his diverse range of sitters, Gilbert highlights the shared humanity of individuals from different cultural and socioeconomic backgrounds. By documenting and portraying their stories, he advocates for diversity, equity, and inclusion in healthcare. Gilbert's work has garnered extensive media coverage, raising awareness about the vital role of art in healthcare and inspiring other researchers and artists to explore the intersection of art and medicine.

Dr. Mark Gilbert's transformative research at the intersection of art and medicine has revolutionized our understanding of illness, recovery, and care. Through his pioneering use of portraiture and innovative research methodologies, he has provided a unique lens through which to examine the patient and caregiver experience. Gilbert's dedication to interdisciplinary collaboration, his commitment to diversity and inclusivity, and his ability to engage the public have solidified his position as a leading figure in the field. As society increasingly recognizes the profound impact of the arts on healthcare, Gilbert's research will continue to shape conversations, inspire new perspectives, and foster empathy and understanding in the medical community and beyond. (Source: UNO Academic Affairs)



Dr. Mark Gilbert (right) presenting at his 2022 "Memory Serves: Drawing Others Close" art exhibition

STUDENT CONFERENCE TRAVEL FUND

The Student Conference Travel Fund (formerly "Student UCRCA") provides support to undergraduate and graduate students to present their work at conferences or meetings.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------------|-----------|----------------|---------|---------------|---|-------|
| Aderonmu | Joseph | Curtze | CEHHS | BMCH | Application for the Student Travel Conference Fund to Attend the American Society of Biomechanics Conference as a Participant and Research Poster Presenter | \$500 |
| Akbar Ahmadi | Ali | Desyatova | CEHHS | BMCH | EFFECT OF TWIST ON COMPLEX DEFORMATIONS OF FEMOROPLOPLITEAL ARTERY IN A FINITE ELEMENT STUDY | \$500 |
| Ali | Alvi | Richards | CPACS | CJUS | Examining the Impact of Training, Knowledge of Resources, and Campus Climate on Reporting Sexual Misconduct Among College Students | \$500 |
| Ampofo | Solomon | Nelson | CAS | GEOG/ GEOL | Using Geospatial Techniques to Assess the Relationship Between Residential Segregation and Mental Healthcare Accessibility in Urban Omaha, Nebraska | \$500 |
| Arispe | Christina | Weaver | CAS | PSYCH | How to Successfully Implement Practical Functional Analyses in School Settings | \$500 |
| Barfi | Mahsa | Mangalam | CEHHS | BMCH | Healthy aging accentuates the collective dynamics of postural control | \$500 |
| Benson-Goldsmith | Michaela | Richards | CPACS | CJUS | OPD-UNO Collaboration for the Prevention and Intervention of Human Trafficking against Children in Omaha | \$500 |
| Branscum | Caralin | Richards | CPACS | CJUS | An Updated Analysis of Sex-Based Harassment in the United States K-12 Schools: Rates and Predictors of Allegations, Student Reporting, and Student Discipline | \$500 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|----------------|-----------|----------------|---------|--------|--|-------|
| Brennemann | Sheldon | Heckler | CPACS | PA | Exploring Emotional Labor in School Shooter Drills: A Phenomenological Study of Public Educators | \$500 |
| Bussey | Trey | Nix | CPACS | CJUS | Development of a policing-specific emotion recognition test | \$500 |
| Crawford | Amy | Price | CAS | ENGL | ORCA Comics Arts Conference Funding Proposal | \$500 |
| Deligiannis | Theodoros | Mangalam | CEHHS | BMCH | Stride Interval Correlations Degrade with Age | \$500 |
| Deman | Alex | Kelly-Vance | CAS | PSYCH | Cultivating a Compassionate School Climate with Secret Kindness Agents Program | \$500 |
| Dunlap | Brenna | Huff | CPACS | CJUS | Repairing the harm caused by arrest: A mixed-methods evaluation of a restorative justice diversion program | \$500 |
| Dunlap | Brenna | Huff | CPACS | CJUS | 2024 International Summer School for Policing Scholars (ISSPS) | \$500 |
| Engsberg | Chris | Mukherjee | CEHHS | BMCH | SCTF IEEE EMBS Gait Kinematic Dependent Plantar Stimulation | \$500 |
| Gannavaram | Pranathi | Kim | CEHHS | COUNSL | Student Conference Travel Funding Proposal | \$500 |
| Ghimire | Kalyan | Brusky | CAS | MATH | Funding For Mathfest Travel | \$500 |
| Grunkemeyer | Alli | Likens | CEHHS | BMCH | Heaviness Perception of Older Adults | \$500 |
| Gwaltney | Holton | Kingston | CEHHS | BMCH | Hand Loading and Lower Limb Kinematics During Simulated Assisted Gait Training: Proof of Concept | \$347 |
| Haan | Dimitri | Knarr | CEHHS | BMCH | Determining the Effect of Glute Activation on Lower Body Biomechanics in Baseball Pitching | \$500 |
| Haghighatnejad | Mehrnoush | Likens | CEHHS | BMCH | JOINT COORDINATION PREDICTS STRIDE VARIABILITY IN HUMAN WALKING | \$500 |
| Hausmann | Ben | Robbins | CAS | BIOL | Thermal adaptations in embryonic metabolic rates and developmental times in a widespread lizard, <i>Sceloporus consobrinus</i> | \$500 |
| Hayes | Abby | Hamilton | CPACS | CJUS | Examining Police Perceptions of Community and De-escalation Training: A Mixed-Methods Approach | \$500 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|---------------------|-------------|----------------|---------|-------|---|-------|
| Hermann | Sarah | Weaver | CAS | PSYCH | Conducting Instruction-Based Concurrent Operant Assessments to Increase Engagement | \$500 |
| Japp | Payge | Reiter-Palmon | CAS | PSYCH | New Insights into the Decisions Creators and Evaluators Make During the Creative Process | \$500 |
| Jensen | Cameron | Knarr | CEHHS | BMCH | Energy Generation and Absorption Across Joints in the Driver Swings of Female Golfers | \$500 |
| Jones | Cecily | Thompson | CFAM | COMM | The Illusion of Queer Connections: Queer Dating Apps and the Rhetorical Productions of Boundaries and Barriers | \$500 |
| Kalaitzi Manifrenti | Maria Eleni | Likens | CEHHS | BMCH | THE TWO-FREQUENCY RESONANCE MAP PREDICTS MULTIFREQUENCY COORDINATION IN DYADS | \$500 |
| Kang | Jiho | Burcal | CEHHS | HK | Deficits in Time-to-boundary Measures during Dynamic Task with Chronic Ankle Instability | \$500 |
| Kim | Seung Kyeom | Likens | CEHHS | BMCH | Distilling Laws of Human Gait Kinematics | \$500 |
| Lacey | Kayla | Kramer | CAS | PSYCH | Whats in a Name? That Which We Call a Team by Any Other Name Would Smell Just as Sweet | \$500 |
| Lee | Michael | Maher | CPACS | PA | Building Community Resilience and Equity: A Case Study on the Importance of Federal Transit Grants for Title VI Programs in Nebraska. | \$500 |
| Mace | Stephanie | Kingston | CEHHS | BMCH | The Effect of Dynamic Treadmill Walking on Center of Mass Displacement: A Feasibility Study for A Novel Approach | \$500 |
| McVay | Sheri | Santo | CAS | PSYCH | The Interrelations Between Peer Help and Parental Support: Explaining Poor Mental Health Among Bullied West African Adolescents | \$500 |
| Miller | Nate | Pickering | CFAM | COMM | Online Harassment and Discrimination of Women in Sports and Sports Broadcasting: A Content Analysis of Twitter Comments | \$500 |
| Mingo | Maddie | Knarr | CEHHS | BMCH | Comparison of Reliability between Barefoot and Shod Conditions for a Novel Force Control Task | \$500 |
| Mishra | Anoop | Khazanchi | IST | IST | Assessing Perceived Fairness in Machine Learning (ML) Process: A Conceptual Framework | \$500 |
| Mun | Seongwoo | Hunt | CEHHS | BMCH | ADAPTATION TO THE CONSTANTLY REPEATED MEDIOLATERAL FOOT PLACEMENT PERTURBATIONS | \$500 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|---------------|-----------------|-----------------------|----------------|-------------|--|--------------|
| Razavi | Hiva | Malcolm | CEHHS | BMCH | Reducing soleus activity using a passive hip exosuit with flexion and extension springs in patients with Peripheral Artery Disease and healthy | \$500 |
| Razian | Sayed Ahmadreza | Kamenskiy | CEHHS | BMCH | Conference SB3C Oral Presentation : Differential Effects Of Hypertension On The Morphological, Mechanical, And Physiologic Characteristics Of Male And Female Human Femoropopliteal Arteries | \$500 |
| Salamifar | Seyedeh Zahra | Myers | CEHHS | BMCH | Assistive shoes can improve the vertical ground reaction forces in patients with peripheral artery disease. | \$500 |
| Schlattmann | Brian | Mangalam | CEHHS | BMCH | Spatial Variability of Fractal Temporal Correlations Supports Center of Mass and Center of Pressure Coupling in Healthy Young and Old Adults | \$500 |
| Schmidt | Brooklynn | Wong | CAS | BIOL | Investigating effects of n-acetylcysteine amide on stress in danio rerio through the glutamate neurotransmitter pathway | \$500 |
| Shahbad | Ramin | Desyatova | CEHHS | BMCH | Is Glycosaminoglycan Accumulation in Aortic Media Associated with Higher Susceptibility to Aortic Dissection? Insights from Peel Test | \$500 |
| Shahbad | Ramin | Desyatova | CEHHS | BMCH | IMPACT OF ELASTIN FRAGMENTATION ON THE MECHANICAL DISSECTION | \$500 |
| Shakerian | Narges | Likens | CEHHS | BMCH | Age Moderates the Relationship between Body Mass Index and Gait Variability | \$500 |
| Shin | Sangwon | Malcolm | CEHHS | BMCH | Exploring the Feasibility of Measuring Walking Symmetry at Home from Thigh Angular Acceleration | \$500 |
| Shubert | Bailey | Barone | CAS | MDHUM | Creating Space Conference | \$500 |
| Sullivan | Brittany | Kelly-Vance | CAS | PSYCH | Service Learning to Benefit Graduate Students and Meet Community Needs | \$500 |
| Swanberg | Kaitlyn | Kulig | CPACS | CJUS | Inceldom: A Qualitative Analysis of Incel Discussion Boards | \$500 |
| Tetteh | Stacey | Heckler | CPACS | PA | Sacred Suppression: The impact of conservative religious institutions on democratic pluralism and equity in public | \$500 |
| Thelagathoti | Rama Krishna | Ali | IST | IST | Mobility-Based Community Analysis for Early Detection of Complex Psychiatric Disorders | \$500 |
| Torres-Rivera | Valeria | Kulig | CPACS | CJUS | Online Dangers: Explaining Cyber Abuse Perpetration and Intimate Partner Violence Via Social Interactionist Theory | \$500 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|--------------------|----------|----------------|---------|------|---|-------|
| Ursino | John | Hamilton | CPACS | CJUS | Impacts on Inmate Flow and Prison Populations | \$500 |
| Wigley | Evan | Li | CAS | BIOL | Investigating Bat Foraging Activity Differences Between Restored Grasslands and Adjacent Agricultural Lands With Implications on Ecosystem Services | \$500 |
| Wong | Jonathan | Benenson | CPACS | PA | Policy Creation for Racial Equity in State Government: The Case Study of Vermont | \$500 |
| Wong | Jonathan | Benenson | CPACS | PA | Best Practices for Whom? A Critical Analysis on Racial Equity and Board Governance Principles of Nonprofit Sector Membership Organizations | \$500 |
| Zamani | Elham | Jadidi | CEHHS | BMCH | Breaks in Longitudinal Elastic Fibers of Human Femoropopliteal Arteries | \$500 |
| Zolfaghari Sichani | Ali | Jadidi | CEHHS | BMCH | Effects of the Loading Rate on the Mechanical Behavior of Proximal Superficial Femoral Artery | \$500 |

Total SCTF Awards: \$31,347



UNO's Glacier Creek Preserve is a 212 ha (525 acre) preserve situated northwest of Omaha in the rolling hills of eastern Nebraska. Many student and faculty research projects have taken place at Glacier Creek Preserve over the years.

WORK-STUDY STUDENT RESEARCH AND CREATIVE ACTIVITY PROGRAM AWARDS

By leveraging Federal Work-Study funds, the Office of Research and Creative Activity, has developed the UNO Work-Study Student Research Program aimed to expand student research opportunities. The program funds work-study eligible students to work 10 hours per week on the faculty member’s research and/or creative activities.

This program is intended to attract underrepresented individuals to research and creative activities. Creating research positions for work-study eligible students provides students with research experiences, mentorship from a research faculty, and access to professional development activities. Students in the program are expected to complete necessary training to participate in the research, including, but not limited to responsible conduct of research and IRB and/or IACUC training as appropriate.

All full-time faculty were eligible to apply and each application was reviewed for merit and mentoring plan. Positions were decided based on these criteria and funding availability. ORCA assisted faculty members in posting the student research positions and disseminating to students who qualified for Federal Work Study. Ultimate responsibility for screening, interviewing, and selecting students rested with each awarded faculty member.

| Last | First | College | Dept | Title |
|------|-------|---------|------|--------------------------------------|
| Wong | Ryan | CAS | BIOL | Mechanisms of Cognition in Zebrafish |



23/24 FUSE awardee, Brandon Villanueva-Sanchez (below) is a mentee of Dr. Ryan Wong



Dr. Ryan Wong (left) with former FUSE awardee Sean Bresnahan, in his lab

FACULTY TESTIMONIAL: DR. RYAN WONG

Dr. Ryan Wong is an Associate Professor of Biology at UNO. He has mentored multiple undergraduate and graduate students during his time at the University.

In August 2023, I hired two work-study students to assist with research efforts in my laboratory: Cherylynn (Cheryl) Gibson and Tai Prauner. Cheryl is a 1st year student majoring in Neuroscience whereas Tai is a 3rd year student majoring in Molecular and Biomedical Biology. Both students received mentoring, training, experience, and professional development in several areas. Both got experience in science communication through a 15-minute presentation of their own data and research progress in lab meeting.

The training and mentorship experiences described above were in service of putting each student in position to make meaningful contributions to ongoing research projects. Cheryl has played an important role in conducting behavioral trials and collecting data for one of the main experiments in my NSF award. By the end of the Spring 2024 semester, I anticipate that at least 80% of the behavioral testing will be complete and Cheryl will be responsible for about 25% of that effort. Tai was solely responsible for identifying zebrafish that will be used to generate the next generation of zebrafish lines in my lab (e.g., source of fish for upcoming federally funded experiments). In addition, Tai has been independently trying to generate transgenic lines of zebrafish, which would be used in another aim of my NSF award.

In summary, Cheryl and Tai benefited by gaining experience in working in a research laboratory, science communication, critical thinking, and specialized scientific techniques. Both have committed to remain in my lab after their position ends. I have benefited in terms of getting closer to completing main projects of my NSF award and having them serve as role models/mentors for new students.

FUND FOR UNDERGRADUATE SCHOLARLY EXPERIENCES

The FUSE grant supports faculty-mentored undergraduate student research and creative activity. Grants of up to \$2,500 are available to UNO undergraduate students.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------|---------|----------------|---------|--------|---|---------|
| Andress | Ian | Wilson | CFAM | MUS | Mixing in Surround Sound: A Comparative Study | \$2,450 |
| Bartel | Noah | Schoenbeck | CAS | BIOL | Tissue Culture Analysis of Plant Physiology in Glechoma hederacea | \$2,500 |
| Berryman | Charlie | Denton | CAS | BIOL | Human Natural Killer Cell Killing Function After Inhibition of ADAM-family Sheddase(s) | \$2,500 |
| Burks | Anna | Dinkel | CEHHS | HK | The Relationship Between Physical Activity and Screen time Among Nebraska Preschoolers | \$2,500 |
| Caldwell | Libby | Maleckis | CEHHS | BMCH | Development of Calcified Artery Model | \$2,500 |
| Carmichael | Camden | Ligon | CBA | BA | Testing a Behavioral Approach to Extremist Violence Prevention | \$2,000 |
| Dong | Jenny | Dinkel | CEHHS | HK | The Relationship Between Physical Activity and Food Insecurity Among Nebraska Preschoolers | \$2,500 |
| Finn | Lizzie | Santo | CAS | PSYCH | Investigating Resilience and Cybervictimization Among Adolescents | \$2,000 |
| Friesz | Jacob | Dickson | CAS | BIOL | Effects of Aphids and Insect Herbivory on Monarch Butterfly Caterpillars | \$2,500 |
| Gross | Marcus | Huang | CPACS | AVINST | The Financial Sustainability of Pilot Compensation Given the Pilot ShortageA Case Study of Delta Airlines | \$2,000 |
| Gryzen | Josh | Lierler | IST | CS | Evaluating Open-Source Large Language Models on bAbI-Tasks | \$2,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|----------|------------------|----------------|---------|-------|--|---------|
| Henry | Jacob | Svechkarev | CAS | CHEM | Determining the limits of detection and identification of a novel multidimensional fluorescent sensor for pathogenic bacteria | \$2,500 |
| Iro | Yassine Mahamane | Rasmussen | CEHHS | BMCH | Evaluation of an Ischio-sacral Offloading Seat Cushion for Enhanced Comfort and Pressure Relief in Individuals at Risk of Ulceration | \$2,450 |
| Irwin | Luke | Cooper | IST | SI2 | Statistical Evaluation of E-PACERR Program | \$2,000 |
| Kirkland | Jonathan | Myers | CEHHS | BMCH | Improving Walking in Peripheral Artery Disease, Using Specially Designed Assistive Shoes | \$2,500 |
| Li | Jialin | Cortese | CAS | PSYCH | A Parallel Distributed Processing Network of Human Reasoning | \$2,500 |
| Little | Alleta | Clover | CAS | FLNG | Männlich, Weiblich, Neutral: A Multidimensional Examination of the Relationship Between Transgender Identity & the German Language | \$2,100 |
| Mark | Tatum | Wilkins | CEHHS | HK | Athletic Trainers Experiences Using Nebraska State Activities | \$2,500 |
| McMullen | Zach | Ayayee | CAS | BIOL | The effects of urbanization on the microbiome of fauna of the Elkhorn River | \$2,500 |
| Miranda | Alex | Svechkarev | CAS | CHEM | Synthesis of Polymers with Antibacterial Properties for Use in Surgical Implant Coatings | \$2,500 |
| Nakamura | Sarah | Cooper | IST | SI2 | Assessing Microbiome Dataset Reproducibility: A Comprehensive Analysis | \$2,000 |
| Neihart | Joe | Fallah Tafti | CEHHS | BMCH | Muscle oxygenation and walking performance in patients with PAD. | \$2,500 |

STUDENT FEATURE: ELIZABETH CALDWELL

Elizabeth Caldwell is currently enrolled in the Biomechanics and Kinesiology Ph.D. program at UNO. Elizabeth received FUSE awards in AY 2022-2023 and AY 2023-2024 under the mentorship of Dr. Jorge Zuniga and Dr. Kaspars Maleckis.

**Student responses edited for clarity*

Project Titles

-Functional Outcomes of Noninvasive Sensory Feedback in Upper Limb Prostheses: A Meta Analysis

-Development of Calcified Artery Model

What was something surprising you learned during your project?

I was genuinely surprised by how little research has been done on noninvasive sensory feedback for upper limb prosthetics. I was also surprised by all the different methods of assessing the functional benefits of prosthetics.

What was the most challenging aspect of your project?

The simple lack of research and data on this particular topic made it difficult to make conclusions from the existing data. If I had this project to do again, I would probably not have been so specific in my analysis criteria. It would have been interesting to analyze a wider variety of articles.



What advice would you give to a new student thinking about participating in faculty mentored research or creative activity?

I know a lot of students who have amazing ideas for projects but find the task of finding a mentor daunting. I actually think that is the easiest part of the project. Most professors genuinely want to see student learn and succeed, so don't be afraid to reach out to professors for mentorship.

How will you use the results or products of your project, and/or the skills you gained in the future?

Before this project, I had never done a meta-analysis. Not only did I learn how to perform a meta-analysis, but I learned how to research effectively. I also got to learn about topics of interest to me such as different prosthetic feedback methods and phantom mapping along the way. All of these things will help me not only in graduate school but also in my future career in research.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|--------------------|-----------|----------------|---------|------|---|---------|
| Nigro | Mia | Gabriel | CAS | RELG | Visualizing Group Migration: Omaha's Black Settlement from Alabama | \$2,500 |
| Olson | Rozlyn | Ayayee | CAS | BIOL | Elkhorn River microbial community composition | \$2,500 |
| Peterson | Paige | DeVeney | CEHHS | SPED | Preliminary item-level performance on developmental domain subtests with infants at low and high risk for autism | \$2,500 |
| Peterson | Garret | Robbins | CAS | BIOL | Examination of antipredator and neophobic behaviors of three populations of a widespread lizard (<i>Sceloporus consobrinus</i>) | \$2,015 |
| Schmidt | Brooklynn | Wong | CAS | BIOL | Investigating anxiolytic responses of <i>Danio rerio</i> through the role of N-acetylcysteine amide on the glutamatergic neurotransmitter pathway | \$2,500 |
| Thlay Wah | Paw | Stacy | CEHHS | HK | Improving Health Outcomes for the Karen Community: Understanding Perceived Barriers to Exercise | \$2,300 |
| Villanueva-Sanchez | Brandon | Wong | CAS | BIOL | Effects of chronic CBD exposure in juvenile zebrafish (<i>Danio rerio</i>) on their anxiety-related behaviors and brain wide 5-HT _{1a} receptor expression as adults | \$2,000 |
| Yumul | Bryan | Battisti | CAS | HIST | The Marcos Regime and the Philippines during the Cold War | \$800 |

Total FUSE Student Awards: \$68,615

Total FUSE Mentor Awards: \$12,000

GRADUATE RESEARCH AND CREATIVE ACTIVITY

The GRACA grant supports faculty-mentored graduate student research and creative activity. Grants of up to \$5,000 are available to UNO graduate students.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------------|----------|----------------|------------|------------|---|---------|
| Abiodun | Mayowa | Clayton | CAS | BIOL | Unraveling the Link Between Diet and Bifidobacteria | \$5,000 |
| Ahmadi | Yasaman | Lather | ENGR (UNL) | ARCENGR | Community and Infrastructure Resilience for Communities at High Risk of Hazardous Natural Disasters in the United States | \$5,000 |
| Aitbayeva | Akbota | Hu | ENGR (UNL) | CVLENGR | 3D Printing Concrete with Nanoclay | \$5,000 |
| Akbar | Ali | Desyatova | CEHHS | BMCH | Bench Top Mechanical Evaluation of Novel PAD Stents | \$5,000 |
| Alam | Arafat | Hu | ENGR (UNL) | CVLENGR | Mechanical Performance of Biomimetic Composite Concrete | \$5,000 |
| Ampofo | Solomon | Nelson | CAS | GEOG/ GEOL | Assessing the Relationship Between Residential Segregation and Access to Mental Health Services | \$5,000 |
| Anukege | Cynthia | Kellar | CAS | BIOL | Genetic Diversity and Phylogenetic Relationships Among Accessions of <i>Pedimelum tenuiflorum</i> Using Inter Simple Sequence | \$5,000 |
| Awale | Nishesh | Youn | IST | CS | Hearing Loss, Mobility, and Fall Risk in Aging Agricultural Workers | \$5,000 |
| Bakhtiari | Mohammad | Cheng | CAS | MATH | Optimization of Energy Storage System by Discharging Schedule using Reinforcement Learning | \$5,000 |
| Benda | Angie | Kramer | CAS | PSYCH | Zooming in on Trust Repair in Virtual Teams | \$5,000 |
| Benson-Goldsmith | Michaela | Richards | CPACS | CJUS | Restorative Justice Policies in School Districts: Impacts on the | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|--------------|----------|------------------|---------|------|--|---------|
| Bommanapally | Vidya | Subramaniam | IST | CS | Quantification of objects through self-supervised learning and activation maps | \$5,000 |
| Botts | Jessica | Geliga | CAS | NATV | A Study of the Environmental History of the American Northern Plains and the Native American Tribes That Inhabited Them | \$5,000 |
| Brennemann | Sheldon | Eikenberry | CPACS | PA | Classroom to Career: Investigating Risk Perceptions of Midwest Preservice Teachers | \$5,000 |
| Brink | Kolby | Likens | CEHHS | BMCH | Modulating Gait Variability to Reduce Metabolic Cost | \$5,000 |
| Bussey | Trey | Nix | CPACS | CJUS | Proximity to Trauma Care and Police Shooting Victim Mortality | \$5,000 |
| Charles | Anaelle | Likens | CEHHS | BMCH | Does mind-wandering predict dual-task cost during overground walking? | \$5,000 |
| Chaudhary | Priyanka | Dinkel | CEHHS | HK | Understanding Beliefs, Benefits, Barriers, and Sources of Information on Pre-pregnancy Physical Activity among Pregnant Women in Nebraska: A Qualitative Study | \$5,000 |
| Chekuri | Srujana | Blaskewicz Boron | CPACS | GERO | The Impact of Caregiving on the Emotional Well-being and Mental Health of Family Caregivers of Aging Adults with Parkinsons Disease: A Comprehensive Review | \$5,000 |
| Choi | Ji Yeon | Rosen | CEHHS | HK | Examining Clinical Factors Contributing to Giving-Way Episodes in Individuals with Chronic Ankle Instability | \$5,000 |
| Corcoran | Jamie | Wong | CAS | BIOL | The role of dopamine in learning differences between personality types in zebrafish | \$5,000 |

STUDENT FEATURE: SHERI MCVAY

Sheri McVay is pursuing a doctoral degree in developmental psychology at UNO. She was mentored by Dr. Jonathan Santo for her 2022-2023 GRACA award and her 2023-2024 SCTF award.

Project Title

The Interrelations Between Peer Help and Parental Support: Explaining Poor Mental Health Among Bullied West African Adolescents

Project Summary

The extensive impact of peer relationships on development has been well-established. However, cultural variability is often overlooked in the literature. The misconception is that the results of studies conducted in Western cultures are universal and can be generalized. The current study aimed to contribute to increasing global representativeness by using data collected from the World Health Organization's Global School-based Student Health Survey (GSHS).

What was the most challenging aspect of your project?

Analyzing data was the most challenging part of this study, and I am grateful for my mentor's support during the process.

What advice would you give to a new student thinking about participating in faculty mentored research or creative activity?



Go for it! Please take advantage of the tremendous opportunities that are available to all the students at UNO. I had the opportunity to present my study at the Society of Research for Adolescents Annual Conference (SRA) in Chicago in April to refine my communication skills as a psychologist. Great experience!

How will you use the results or products of your project, and/or the skills you gained in the future?

My research will continue to focus on adolescents and the impact of peer victimization on various developmental domains. Additionally, I am grateful for the experiences that I have gained along the way.

I am thankful for my inspirational advisor, Dr. Santo, and all the wonderful faculty at UNO. Also, thank you to everyone who works behind the scenes so the students can shine and represent the inclusive culture of our university. Proud to be a Maverick!.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|---------------|-----------|----------------|---------|-------|--|---------|
| Cromwell | Stephanie | Ayayee | CAS | BIOL | Interplay Of Abiotic Factors On Sorghum (Sorghum bicolor) Growth And Rhizosphere Composition And Function | \$5,000 |
| d'Amato | Alexis | Hunter | CAS | PSYCH | Examining the Mechanisms of Malevolent Creativity Idea Evaluation | \$5,000 |
| Dare | Pamela | Strasser | CAS | PSYCH | Give a Dog a Bone: Does Enrichment Alleviate Boredom in Companion Animals in the Home Environment? | \$5,000 |
| Das Mohapatra | Anshuman | Oh | IST | CS | WANify: Balancing overall WAN bandwidth over parallel heterogeneous real-time channels | \$5,000 |
| Decker | Jake | Burcal | CEHHS | ATHL | A Comparison of Shoulder Kinematics and Jump Landing in Collegiate Volleyball Players | \$5,000 |
| Dhakal | Keeran | Lierler | IST | CS | EZSMTv3.0 Development and Benchmarking | \$5,000 |
| Dunlap | Brenna | Huff | CPACS | CJUS | Officer Involved Fatal and Nonfatal Shootings Across Neighborhoods | \$5,000 |
| Duvall | Kylie | Strasser | CAS | PSYCH | The Influence of Canine Early Life History on Stress-Related Changes in Salivary Cortisol and its Association with Salivary -Amylase | \$5,000 |
| Ekwenye | Angela | Boxell | CAS | HIST | HEROIC WOMEN OF THE WEST: THE ROLE OF WOMEN IN DEVELOPING THE WEST | \$5,000 |
| Engsberg | Chris | Mukherjee | CEHHS | BMCH | The Effect of Tactile Stimulation on Brain Activity During Walking: The Effect of Walking Speed | \$5,000 |
| Fadeev | Aleksandr | Salkovskiy | CEHHS | BMCH | LIQUID TRANSFER IN ELECTROSPUN NON-WOVEN FABRIC WITH CONTROLLED NANOFIBER ORIENTATION FOR BIOMEDICAL APPLICATIONS | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|----------------------|-------------------|----------------|---------|-------|---|---------|
| Faith | Kenya | Reiter-Palmon | CAS | PSYCH | Assessing everyday problem solving in workplace scenarios | \$5,000 |
| Fiscus | Justine | Zhu | CAS | PSYCH | Parenthood as a Superpower for Supervisors: How Parenting Impacts a Leaders Behavior | \$5,000 |
| Forke | Thomas | Celinscak | CAS | HIST | Religious Expression in the Soviet Gulag | \$5,000 |
| Galapita Mudiyansele | Dilanga Lakshitha | Subramaniam | IST | CS | Digital Twin based Reinforcement Learning for User-Specific Educational Serious Gaming Support Systems | \$5,000 |
| Ghanbari | Mahboubah | Salkovskiy | CEHHS | BMCH | Nitric oxide release from chitosan nanofibrous wound dressings | \$5,000 |
| Grunkemeyer | Alli | Likens | CEHHS | BMCH | Stochastic Resonance and Heaviness Perception of Occluded Objects | \$5,000 |
| Haan | Dimitri | Knarr | CEHHS | BMCH | Determining the Effect of Glute Activation on Lower Body Biomechanics in Baseball Pitching | \$5,000 |
| Haghighatnejad | Mehrnoush | Likens | CEHHS | BMCH | Interconnected variability: Evaluation of Physiological and Motor coupling in Human Walking | \$5,000 |
| Harris | Meg | House | IST | ISQA | Exploring Emotional Intelligence as a Mechanism for Reducing the Impact of Phishing | \$5,000 |
| Harte-Maxwell | Patricia | Blankenship | CAS | BIOL | Exploring the Role of Calcineurin in Filamentation across Inducing Conditions in the Fungal Pathogen Candida albicans | \$5,000 |



Dr. Denton (back row center) with biology lab students who presented at the 2024 Student Research and Creative Activity Fair, including five awardees.

FACULTY FEATURE: DR. PAUL W. DENTON

Dr. Paul W. Denton is an Assistant Professor of Biology at UNO. He has mentored multiple FUSE students during his time at the University.

Why did you agree to mentor a FUSE or GRACA student?

I think it is important for students to think through an experimental plan before starting the work. Writing a proposal is the perfect way to organized thoughts about an experiment.

What do you think are the most important skills students learn by doing faculty-mentored research or creative activity?

Student doing research learn a tremendous amount. Students learn about themselves and gain self-confidence through performing research. In this process, students also learn to be a good citizen of the laboratory. Importantly, students also learn about the process of conducting research (e.g., budgeting, planning, collecting data, analyzing data, reporting data).

What advice would you give to a new faculty member thinking about mentoring a student at UNO?

Do it! UNO has wonderful students who are eager to make a difference. Working with students is a highlight of my work.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------|----------|--------------------|---------|-------|--|---------|
| Hausmann | Ben | Robbins | CAS | BIOL | Thermal Sensitivity of Metabolic Rates Across Life Stages in a Widespread Lizard Species | \$5,000 |
| Heckens | Kaleb | Pleggenkuhle-Miles | CBA | MGMT | Study Abroad Length and the Impact on Employability | \$5,000 |
| Hinz | Kailey | DeVeney | CEHHS | SPED | Joint Engagement in Infants at High Risk for Autism Spectrum Disorder: An Exploratory Study | \$5,000 |
| Ide | Tomohiro | Wilkins | CEHHS | HK | Changes in fatigue throughout a competitive season and relationships between fatigue and pitching biomechanics/UCL characteristics in collegiate baseball pitchers Pilot Study | \$5,000 |
| Jamiu | Qudus | Blankenship | CAS | BIOL | Investigating the Role of Mechanosensory Genes (Wsc1, Wsc2, and Mid1) in Triggering Filamentation on Solid Surfaces and Their Influence on Nutrient Sensing in Candida albicans. | \$5,000 |
| Japp | Payge | Reiter-Palmon | CAS | PSYCH | Examining Perceptions in Aggressive Ideation | \$5,000 |
| Jensen | Cameron | Knarr | CEHHS | BMCH | Explaining the Biomechanical Differences in Male and Female Golf Swings Using a Functional Assessment | \$5,000 |
| Johnston | Hanna | Kramer | CAS | PSYCH | The Elephant in the Room: Complacency's Role in Organizational Learning and Psychological Safety | \$5,000 |
| Jones | Matt | Park | CEHHS | HK | The Underlying Mechanisms of Reactive Hyperemia in People with Spinal Cord Injuries | \$5,000 |
| Jurkiewicz | Alice | Kearns | CPACS | CJUS | Awareness of and Attitudes toward Anti-Asian Hate Crimes Post COVID-19 | \$5,000 |

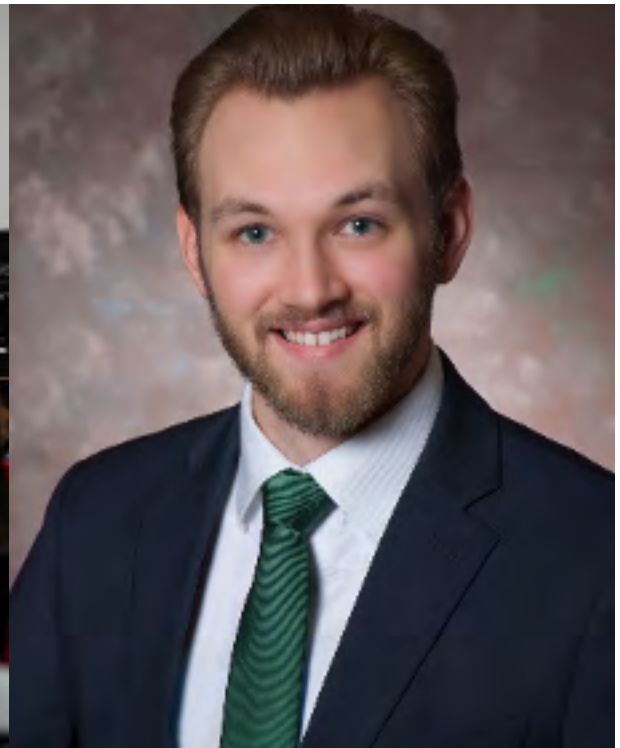
| Last | First | Faculty Mentor | College | Dept | Title | Award |
|---------------------|---------------|----------------|------------|---------|--|---------|
| Kalaitzi Manifrenti | Maria Eleni | Likens | CEHHS | BMCH | Incorporating Human Movement Variability in Bimanual Multifrequency Coordination | \$5,000 |
| Kang | Jiho | Burcal | CEHHS | HK | Effects of Dual Task Combined with Visual Interference on Balance in Patients with Chronic Ankle Instability | \$5,000 |
| Kanti Kar | Kanak | Roy | ENGR (UNL) | CVLENGR | Long-term Climate Impact on Groundwater in Nebraska | \$5,000 |
| Kawasaki | Yuzuho | Wilkins | CEHHS | HK | The Relationship Between UCL Stiffness, Humeroulnar Joint Gapping, and Elbow Valgus Torque in College Baseball Pitchers. | \$5,000 |
| Kelley | Mike | Saltamacchia | CAS | HIST | The Tomahawk Buried Underneath the Mississippi: Reacting to the 1825 Treaty of Prairie du Chien | \$5,000 |
| Khadka | Prajin | Oh | IST | CS | Similarity-Aware Task Scheduling in Spark | \$5,000 |
| Kim | Seung Kyeom | Likens | CEHHS | BMCH | Human Movement Variability as a Design Principle for Gait Retraining | \$5,000 |
| Knight | Cody | Reiter-Palmon | CAS | PSYCH | Evaluating Ideas to Common Workplace Problems | \$5,000 |
| Koroyeh | Mobina Masaei | Behboodi | CEHHS | BMCH | Enhancing Sagittal Plane Range of Motion in DE-AFO: A Smart Ankle Exoskeleton for Children with Cerebral Palsy, Powered by Artificial Muscle | \$5,000 |
| Lacey | Kayla | Kramer | CAS | PSYCH | What Can Researchers Learn from Role-Play? Examining Team Processes Through the Lens of TTRPGs | \$5,000 |
| Lehn | Sarah | Battisti | CAS | HIST | THE EAGLES AND THE KAISER: OMAHA CENTRAL HIGH SCHOOL AND WORLD WAR I ANTI-GERMANISM | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|-----------|--------------|----------------|------------|---------|---|---------|
| Malisetty | Saiteja | Ali | IST | CS | Advancing Educational Assessment Through Network Models: Insights from an Introductory Computer Science Course | \$5,000 |
| Malisetty | Bhavani | Perez | IST | CS | Clear Choices in a Connected World: Simplifying IoT Privacy Policies with User-Friendly AI Technology | \$5,000 |
| Matthews | Colina | Kingston | CEHHS | BMCH | The Effect of Walking Environment and Speed on Muscle Co-contraction in the Lower Limbs of Children with Cerebral Palsy | \$5,000 |
| Meza | Rodrigo | Manning | CAS | BIOL | Food Web Structure and Connectance Between Protected and Impaired Prairie Rivers. | \$5,000 |
| Mingo | Maddie | Knarr | CEHHS | BMCH | Relationship Between Torque Complexity and Force Control Variability | \$5,000 |
| Moelter | Isaac | Kearns | CPACS | CJUS | Online White Nationalist Rhetoric and Incarceration | \$5,000 |
| Mohammadi | Vahid | Kamenskiy | CEHHS | BMCH | Designing and prototyping a new robotic device for feeding the guide-wire into an artery | \$5,000 |
| Mohammadi | Sahel | Behboodi | CEHHS | BMCH | Integrating Active Mediolateral Support into DE-AFO: A Comfortable Ankle-Foot Orthosis Powered by Artificial Muscle | \$5,000 |
| Moushi | Owana Marzia | Qian | ENGR (UNL) | CVLENGR | Misbehavior Detections in Vehicular Communication Networks | \$5,000 |
| Murray | Jennifer | Wilson | CAS | BIOL | Population genetic analysis of a novel population of southern flying squirrels (<i>Glaucomys volans</i>) in Lincoln, Nebraska | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------|----------------------|----------------|---------|-------|--|---------|
| Nkrumah | Richard | Maher | CPACS | PA | Counties during the Great Recession: How did their institutional design affect county responses and recovery? | \$5,000 |
| Nomula | Vidya Chandrashekhar | Subramaniam | IST | CS | Automated Course Design: An AI-Driven System for Customized Educational Content Generation Using ChatGPT | \$5,000 |
| Nystrom | Alyssa | Richards | CPACS | CJUS | Exploring the Role of Adverse Childhood Experiences in Batterer Intervention Treatment Completion: Does the Opportunity to Break the Cycle of Abuse Motivate Change? | \$2,500 |
| Odanye | Oluwaseye Paul | Knarr | CEHHS | BMCH | Mechanisms of Underwater Treadmill Gait Training in Stroke Survivors | \$5,000 |
| Ogasawara | Takato | Knarr | CEHHS | BMCH | Mechanical Energy Flow during the Drive Phase for Softball Windmill Pitching | \$5,000 |
| Oh | Laura | Kramer | CAS | PSYCH | Serving Up Success: How Team and Individual Differences Influence Satisfaction | \$5,000 |
| Olorunsola | Olayemi | Toh | IST | SI2 | Investigating Type-2 thinking in UX Design evaluation methods using eye-tracking | \$5,000 |



Matthias Walters (right) is a member of Dr. Paul Davis' (above) Molecular Parasitology Lab



ON THE VALUE OF STUDENT RESEARCH AND CREATIVE ACTIVITY

Testimonial written by Matthias Walters

I am fortunate to have been involved with both the FUSE and the GRACA programs. As an undergraduate I was accepted for FUSE grants in physiology and in immunology. It was with these grants that I was able to work on my first research projects to reach publication. I learned how to design an experiment, how to read the literature and to develop methods from it, and how to communicate novel ideas to a diverse audience through poster and PowerPoint presentations. The challenge of analyzing data and effectively presenting to an audience of scientists and non-scientists was something I had not thought about previously, but I was able to overcome this with my mentor. Through these experiences, I discovered that I want to continue my career as a research scientist. I am now halfway through a master's degree at UNO, where I am supported by a GRACA, and I am applying to PhD programs in biomedicine. I feel confident going into a PhD program since I have experience working in labs, writing grants, and presenting at conferences — all made possible by FUSE/GRACA.

It's important to acknowledge that these funding programs not only hone the skills of individual students and assist in their career paths, but also foster a culture of inquiry and innovation within the department and the university as a whole. Academic involvement outside of the classroom feels proximate as a student, largely due to these programs facilitating the process. I encourage students and faculty to engage with FUSE/GRACA, as these programs do an excellent job of preparing students for future academic and professional endeavors.

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------------|-----------------|----------------|------------|---------|---|---------|
| Orynbassarov | Islam | Hu | ENGR (UNL) | CVLENGR | Advancing Carbon-Negative Concrete Solutions for Everyday Construction | \$5,000 |
| Partusch | Luke | Rosen | CEHHS | ATHL | The Effects of a Competitive Athletic Season on Functional Performance Metrics in Collegiate Female Athletes with Patellar Tendinopathy | \$5,000 |
| Pilachai | Aury | Clouther | CFAM | WRWO | Reclaiming Spirituality and Culture:The Implications of Preserving and Adapting Religion and Culture in the Modern Era | \$5,000 |
| Pineda Gutierrez | Ana Laura | Hunt | CEHHS | BMCH | REAL-TIME AUDIO BIOFEEDBACK SYSTEM: A COMPUTERIZED MODEL | \$5,000 |
| Poomulna | Jutharat | Kingston | CEHHS | BMCH | Comparison of lower limb joint kinetics between markerless and marker-based motion capture systems during overground walking in children cerebral palsy (CP). | \$5,000 |
| Poudel | Upahar | Maguire | ENGR (UNL) | ARCENGR | Testing Recycled Plastic Lumber for Flexural Creep and Thermal Characteristics | \$5,000 |
| Rains | Alexia | Mukherjee | CEHHS | BMCH | The effect of exoskeletal devices on locomotor adaptive ability in healthy human subjects | \$5,000 |
| Razian | Sayed Ahmadreza | Kamenskiy | CEHHS | BMCH | Differences in Morphological, Mechanical, and Physiological Characteristics of Human Femoropopliteal Arteries in Men and Women | \$5,000 |
| Ruman Islam | Md | Huang | IST | CS | Application-Specific Adaptive Congestion Control Using Deep Reinforcement Learning | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|------------------|---------------|----------------|---------|------|---|---------|
| Salamifar | Seyedeh Zahra | Myers | CEHHS | BMCH | Oxygen-guided supervised exercise therapy to improve the cadence and walking distance in patients with peripheral artery disease. | \$5,000 |
| Scobie | Aaron | Price | CAS | ENGL | How to Make it Back Home: A History of Travels to the Deep South | \$5,000 |
| Self | Cara | Burcal | CEHHS | HK | Comparison of Static & Dynamic Blood Flow Restriction Systems on Muscle Strength & Hypertrophy | \$5,000 |
| Seok | Kyeongjun | Rosen | CEHHS | HK | The Relationship Between Ulnar Collateral Ligament Laxity and Muscle Activation of Elbow Musculature in Baseball Pitchers | \$5,000 |
| Shahbad | Ramin | Desyatova | CEHHS | BMCH | Quantifying the Impact of Stent-Graft Compliance on Aortic Windkessel Effect | \$5,000 |
| Shapouri | Fatemeh | Ward | IST | ISQA | The Effect of Leadership Styles on Business Intelligence System Usage | \$5,000 |
| Shin | Sangwon | Malcolm | CEHHS | BMCH | Comparison of Walking Training on Overground versus on a Treadmill with an Asymmetric Exosuit | \$5,000 |
| Showkot | Md | Battisti | CAS | HIST | From Advocacy to Action: Senator Kennedy's Impact on Halting U.S. Arms Aid to Pakistan During Bangladesh Liberation War | \$5,000 |
| Shuvo | Sazzad | Subramanian | CFAM | COMM | Exploring female collegiate athletes lived experiences of mental health stigma on social media | \$5,000 |
| Siddiquir Rahman | Abu Bakar | Najjar | IST | ISQA | Time-saving data collection and prediction of optical properties in photonic crystal fiber | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|----------------------|----------|----------------|------------|---------|--|---------|
| Sousanabadi Farahani | Hossein | Kim | ENGR (UNL) | CVLENGR | Carbon Sequestration Capacity via the Carbonation Treatment of Recycled Concrete Aggregates (RCA) using Carbon Dioxide | \$5,000 |
| Sraboni | Syeda | Olagoke | CEHHS | HK | iHeard: Health information monitoring and response in Douglas County | \$5,000 |
| Walters | Matthias | Davis | CAS | BIOL | Establishing Potency Assays for the Immunostimulant EP67 | \$5,000 |
| Ward | Elle | Allen | CBA | MGMT | Analyzing the Spatio-Temporal Nexus of Labor Trafficking and Terrorism | \$5,000 |
| Weimer | Kollyn | Park | CEHHS | HK | Cardiovascular and Autonomic Responses to Acute Exposure to Mild Hypercapnic Conditions | \$5,000 |
| Wigley | Evan | Li | CAS | BIOL | Investigating Insect Abundance Differences Between Restored Grasslands and Adjacent Agricultural Lands With Implications on Ecosystem Services | \$5,000 |
| Wiles | Tyler | Likens | CEHHS | BMCH | The Influence of Gait Variability on Human Odometry | \$5,000 |
| Williams | Jania | Myers | CEHHS | BMCH | The Effect of an Ankle Exoskeleton during Walking on Exercise Outcomes | \$5,000 |
| Woelfel | Sarah | Rosen | CEHHS | HK | Relationship of Tissue Quality to Pain and Dysfunction in Patients with and without Patellar Tendinopathy | \$5,000 |

| Last | First | Faculty Mentor | College | Dept | Title | Award |
|--------------------|---------|----------------|---------|-------|---|---------|
| Wolfsohn | Brandon | Robbins | CAS | BIOL | Comparing thermoregulatory behavior and digestive efficiency among latitudinally separated lizard populations (<i>Sceloporus consobrinus</i>) | \$5,000 |
| Wooley | Jessica | Hribljan | CAS | BIOL | Urban Wetland Health Assessment for Conservation Efforts Along The Missouri River | \$5,000 |
| Wray | Merrick | Strasser | CAS | PSYCH | Exploring the Impact of Oxytocin on Canine Stress Responses and Behavior | \$5,000 |
| Zolfaghari Sichani | Ali | Jadidi | CEHHS | BMCH | Integrated Study of Renal Artery Biomechanics | \$5,000 |

Total GRACA Student Awards: \$554,800

Total GRACA Mentor Awards: \$47,500



2024 "Outstanding Graduate Poster" winner and GRACA awardee Seung Kyeom Kim (center) with Dr. Phil He, SVC and Dr. Sara Myers, AVC. Kim received the "Outstanding Graduate Poster" award at the 16th annual Research and Creative Activity Fair and a GRACA award in the 2023-2024 academic year.



Save the Date!
**The 17th Annual Student Research and
Creative Activity Fair will be held on
Friday, April 11, 2025**

2023-2024 FACULTY MENTORS

A special "thank you" to all of the UNO faculty who mentored FUSE, GRACA, and SCTF students this past academic year.

Hesham Ali

Matt Allen

Paul Ayayee

Timi Barone

Danielle Battisti

Ahad Behboodi

Jodi Benenson

Jill Blankenship

Julie Blaskewicz Boron

Mark Boxell

Becky Brusky

Christopher Burcal

Mark Celinscak

Xiaoyue Zoe Cheng

Jonathan Clayton

Gwyneth Cliver

Kevin Clouter

Kate Cooper

Michael Cortese

Carolyn Curtze

Paul H. Davis

Paul Denton

Anastasia Desyatova

Shari DeVeney

Timothy Dickson

Danae Dinkel

Angela Eikenberry

Farahnaz Fallah Tafti

Jeannette Gabriel

Susana Geliga

Zachary Hamilton

Nuri Heckler

Deanna House

John Hribljan

Jiong Hu

Pei-Chi Huang

Victor Huang

Jessie Huff

Nathaniel Hunt

Samuel Hunter

Majid Jadidi

Alexey Kamenskiy

Erin Kearns

Roxi Kellar

Lisa Kelly-Vance

Deepak Khazanchi

Isak Kim

Seunghee Kim

David Kingston

Brian Knarr

William Kramer

Teresa Kulig

Jennifer Lather

Han Li

Yuliya Lierler

Gina Ligon

Aaron Likens

2023-2024 FACULTY MENTORS

A special "thank you" to all of the UNO faculty who mentored FUSE, GRACA, and SCTF students this past academic year.

Marc Maguire

Corbin Rasmussen

Adam Weaver

Craig Maher

Roni Reiter-Palmon

Sam Wilkins

Philippe Malcolm

Tara Richards

James Wilson

Kaspars Maleckis

Travis Robbins

Thomas Wilson

Madhur Mangalam

Adam Rosen

Ryan Wong

David Manning

Tirthankar Roy

Jong-Hoon Youn

Mukul Mukherjee

Yury Salkovskiy

Mia Zhu

Sara Myers

Martina Saltamacchia

Lotfollah Najjar

Jonathan Santo

Sarah Nelson

Mark Schoenbeck

Justin Nix

Ada-Rhodes Short

Kwangsung Oh

Richard Stacy

Ayo Olagoke

Rose Strasser

Song-Young Park

Mahadevan Subramaniam

Alfredo Perez

Roma Subramanian

Barb Pickering

Denis Svechkarev

Erin Pleggenkuhle-Miles

Herb Thompson

John Price

Christine Toh

Yi Qian

Kerry Ward

24/25 INTERNAL FUNDING OPPORTUNITIES

University Committee on Research and Creative Activity (UCRCA)

The purpose of the UCRCA is to expand the capacity for research and creative activity at UNO. UCRCA supports all areas, types and disciplines of research and creative activity by pre- and post-tenured faculty and graduate and undergraduate students. The award strives to recognize and honor preeminent achievement in research or creative activity by faculty members of UNO.

Fund for Undergraduate Scholarly Experiences (FUSE)

FUSE grants support faculty-mentored, undergraduate student research and creative activity. Grants of up to \$2,500 per student are available to currently enrolled UNO undergraduate students. The FUSE application opens in September 2024 and applications will be reviewed on a rolling basis until funding runs out.

Graduate Research and Creative Activity (GRACA)

GRACA grants support faculty-mentored, graduate student research and creative activity. Grants of up to \$5,000 per student are available to currently enrolled UNO graduate students. The GRACA application opens in September 2024 and applications will be reviewed on a rolling basis until funding runs out.

Student Conference Travel Fund (SCTF)

SCTF grants provide support for undergraduate and graduate students to present their work at professional conferences or meetings. Grants of up to \$500 per student are available to currently enrolled UNO students and students may be awarded twice each academic year. SCTF applications are due the first working day of each month, September 2, 2024 through June 2, 2025.

UNO Work-Study Student Research Program

The UNO Work-Study Research and Creative Activity Program aims to expand student opportunities in research and creative activity by providing incentives to faculty who hire work-study eligible students to assist in and/or contribute to their research and/or creative endeavors. The program rewards faculty for the mentoring they provide to their work-study student employees as these students support the faculty members' research and/or creative activity. All full-time UNO faculty are eligible to apply. Applications are accepted on a rolling basis, July-March.

New for 2024-2025!

UNO Research and Creative Activity High School Internship Program

This program funds high school interns to work on faculty members' research and/or creative endeavors and rewards faculty for the mentoring they provide their interns.

Students hired by faculty who participate in the program must be at least 16 years old at the time of hire. Both faculty and students must comply with UNO youth safety policy and procedures. In addition, interns are expected to complete necessary training to participate in the research and/or creative activity, including, but not limited to, responsible conduct of research, IRB and/or IACUC training as appropriate.

All full-time UNO faculty are eligible to apply and applications are accepted on a rolling basis.


Additional information and guidelines for all programs can be found at unomaha.edu/ORCA


2023-2024 INTERNAL FUNDING SUMMARY


| PROGRAM | TOTAL | Number of Awards |
|-------------------------------|-----------|------------------|
| UCRCA Faculty | \$87,308 | 11 |
| SCTF Student | \$31,347 | 63 |
| FUSE Student | \$68,615 | 30 |
| FUSE and GRACA Faculty Mentor | \$59,500 | 86 |
| GRACA Student | \$554,800 | 112 |
| Grand Total | \$801,570 | 302 |



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