JAMES H. BRICKLEY ENDOWMENT FOR FACULTY PROFESSIONAL DEVELOPMENT AND INNOVATION
FALL 2022 AWARD WINNERS

The James H. Brickley Endowment for Faculty Professional Development and Innovation was established by Anthony and Lois Evans in 2016. The purpose of this award is to facilitate faculty professional development and innovation through a broad range of activities, including research and scholarly/creative work, curriculum development, community service, professional travel, and training. This award cycle funded nine projects totaling $71,909. Eleven faculty will be supported, representing five colleges: the College of Arts and Sciences (five), the College of Health and Human Services (three), the College of Education (one), the College of Engineering and Technology (one), and the College of Business (one).

Congratulations to the following faculty for their Brickley Award projects!

ADAM BRIGGS || Department of Psychology, College of Arts and Sciences

"Developing an Innovative Translational Research Laboratory to Study an Analog of Treatment Relapse of Severe Destructive Behavior in Children with Autism in a Safe and Ethical Manner". $2,950. Dr. Adam Briggs seeks to investigate the variables influencing treatment relapse in children with autism and evaluate the influence of prevention and mitigation techniques using a computer task with college students. Treatment relapse can cause both safety and ethical repercussions in a clinical setting. Funding will support the required hardware and software to startup an innovative translational laboratory on EMU's main campus, hiring an expert programmer to modify existing software, and training people within the EMU community to use and modify the software. He not only plans to grow personally from this experience, but also hopes to involve EMU students (both undergraduate and graduate) in the experience of the great professional development opportunities that this research introduces.

OVIDIU CALIN || Department of Mathematics & Statistics, College of Arts and Sciences

"Machine Learning Tools for Interpreting DART Mass Spectroscopy Data". **$5,826.** Dr. Ovidiu Calin will use his Brickley award to expand the efficiency and effectiveness of the AccuTOF-DART mass spectrometer that the EMU Chemistry department acquired over a decade ago. His goal is to develop a computer software tool that will take the data that the machine produces and make it easier to process and analyze the information. This software will benefit chemistry researchers who use a mass spectrometer to collect DART data, and is envisioned to support collaboration with others who employ large data sets in Physics, Biology, Geology and the College of Engineering and Technology. Dr. Calin also looks forward to disseminating the software and its success at the annual *Machine Learning Conference* at EMU in April of 2023.

AUDREY FARRUGIA || Department of Special Education & Communication Sciences and Disorders, College of Education

"Adding Certified Lactation Counseling to Speech-Language Pathology: Lactation Counseling for Exceptional Families". $3,505. Dr. Audrey Farrugia is very passionate about growing the speech-language pathology field and helping shape our Communication Sciences and Disorders program at EMU. One way in which she strives to do this is by implementing lactation consulting knowledge and instruction for students. This funding will cover the tuition cost for Dr. Farrugia's to become certified for leading lactation counseling class, thus bringing that learning to EMU to share with students and other faculty. The long-term goal that Dr. Farrugia has is for lactation counseling knowledge to be added to courses in the Communication Sciences and Disorders program and to add lactation counseling services to the EMU Speech and Hearing clinic. This will benefit the students in the program, faculty and community members who will be able to use these services.

FRANK FEDEL || School of Health Promotion & Human Performance, College of Health & Human Services

"Innovative Virtual Reality Content Development for Healthcare Education". **$9,800.** Use of virtual reality in the classroom is becoming an expectation for a number of areas in higher education. Dr. Frank Fedel recognizes the opportunity that virtual reality presents in healthcare education. Using virtual reality would allow students to view different anatomical structures in new ways and would promote an entirely new level of learning. The dedicated funding would support the research assistants assigned to this project, the virtual reality template app and equipment, the purchase of in-app assets and travel costs for Dr. Fedel to present his work at the National Association for Kinesiology in Higher Education Conference in January.

SHEILA LONGPRÉ || School of Health Sciences, College of Health & Human Services

"Identifying the Distinct Needs of Adolescent and Young Adult Cancer Survivors". $12,000. Dr. Sheila Longpré strives to gather a better understanding of what adolescent and young adult cancer survivors need physically, psychologically and occupationally. She plans to do this by recruiting subjects to help her collect both quantitative and qualitative data. The long-term goal of this research project is to develop a digital resource to support this population with their needs. This award will provide funding to hire student research assistants and partially cover travel costs for Dr. Longpré to present her research at the American Occupational Therapy Association Annual Conference in April 2023. Dr. Longpré will be collaborating with three additional occupational therapy clinicians from around the United States.

TSAI-SHAN SHEN || School of Communication, Media & Theatre Arts, College of Arts and Sciences

"Clearing Fog of Love: How Attachment Styles Affect Relational Behaviors". $6,000. Dr. Tsai-Shan Shen is hoping to fill the gap in research regarding how attachment styles predict relational behaviors. He plans to go beyond current research that mainly involves self-report surveys to use priming techniques and observe the effects of the priming techniques with participants while they play the board game *Fog of Love*. To do this, Dr. Shen will need funding for moderator time compensation, audio transcription costs, and participation incentives, much of which is already covered by other awards Dr. Shen has won. The Brickley award will cover another large portion of the required funding for this project. This research will benefit the field by providing more information regarding attachment styles and it will also benefit the EMU community by getting students more involved in research opportunities.

REBECCA SPRAGG || School of Health Promotion & Human Performance, College of Health & Human Services

"Identifying Workplace Hazards, Accommodations and Pregnancy Complications in Orthotic and Prosthetic Employees". $6,300. There is a very large gap in research regarding pregnancy concerns in orthotics and prosthetics workplaces. This research project aims to examine pregnancy loss within the field of orthotics and prosthetics and to compare it to national rates, determine the current knowledge of employees of pregnancy-related workplace hazards that are present, and identify workplace accommodations previously made by pregnant employees. Funding for this project granted by the Brickley Endowment will help cover data analysis software, the cost to hire a statistician and travel expenses for both Rebecca Spragg and a graduate student to present this research to a national audience.

CHUYANG YANG || School of Technology & Professional Services Management, College of Engineering and Technology

"Leverage NextGen Technologies to Estimate Aircraft Operations near EMU Community". $4,450. Currently, not all airports in the United States know exactly what aircraft operations are occurring at their airport. Dr. Chuyang Yang recognizes that changes need to be made in order to ensure the safety of pilots, better estimate the environmental impacts on the communities surrounding airports and enhance planning and management of airports. Dr. Yang's goals in his research are to develop a data collection and sharing system to help keep a record of the majority of EMU students' flight training activities, to publish results that leverage NextGen Technologies and artificial intelligence to estimate aircraft operations, and to establish a research proposal to further study how artificial intelligence algorithms are used to improve aircraft operations classification. The funding allocated to this project will cover the required equipment, field implementations, access to literature and reports, and travel costs.

JODONNIS RODRIGUEZ (top) || Department of Accounting, Finance, & Information Systems, College of Business

AMANDA STYPE (middle) || Department of Economics, College of Arts and Sciences

MELISSA JONES (bottom) || Department of English Language and Literature and Department of Women's and Gender Studies, College of Arts and Sciences

"The EMU Financial Empowerment and Equity Center". $21,078. This team of three faculty members from EMU is passionate about addressing the financial hardship that students face that sometimes causes students to stop out. This project will develop a Financial Empowerment and Equity Center on EMU's campus to support students in completing their degrees at EMU despite potential financial difficulties. First, this team hopes to reach out to 121 student stop outs who will be their focus for data collection. This center is hoping to become a more permanent establishment on campus to continue this research and possibly aid students down the road. Funding granted to this project from the Brickley Endowment will help cover the time and efforts of the research team and travel costs for conferences and training for the team to step outside of their academic disciplinary areas of expertise for the purpose of making the center as effective as possible in helping EMU students. This project will benefit the students, faculty, staff, and administrators of EMU by providing resources to the EMU community for financial issues that negatively impact certain populations more than others.