

Office of Research Development and Administration
Award Report: January, February, March 2019
\$1,334,702

Jessica Alexander, Engage

Washtenaw Intermediate School District (\$5,440)

College Coaching Corps 2018-2019 WI19 Supplement: The College Coaching Corps seeks to help Michigan students located in communities with low socio-economic status and low adult educational attainment rates pursue postsecondary educational opportunities. Working alongside school professionals and under the supervision of school counselors or principals, Eastern Michigan University College Coaching Corps Graduate Assistants support students as they make the transition from high school to postsecondary education. College Coaching Corps GA's provide students and their families with relevant information regarding the benefits of a postsecondary education, preparing for college attendance, and the admission and financial aid processes

Substance Abuse and Mental Health Services Administration (\$32,834)

Prime for Life: The focus of the Prime for Life projects will be to train both a resident prevention specialist and teaching artists (4 to 5) in this intervention. Once trained, as team we will design and integrate drama-based components into and with this curriculum. As a tool, drama/theatre are inherently reflective and reflexive mediums, which align with the Prime for Life's key preventive strategy. Each teaching artist will work with differing communities and individuals to implement the intervention through a series of workshops and meetings, provide evaluation on impact (pre and post) and design and direct a public presentation.

Washtenaw United Way (\$3,000)

Family Empowerment Program Emergency Funds: These funds work to support families who reside in the Ypsilanti Housing Commission and participate in the Family Empowerment Program to ensure housing stability by providing funds for renter's insurance and emergencies.

Ellen Gold, Student Wellbeing

Alana's Foundation (\$700)

Alana's Foundation 2018-2019 Supplement: The funds granted will be used to provide flu vaccine for EMU students who are not insured.

Cathy Fleischer, English Language and Literature

National Council of Teachers of English (\$14,400)

National Council of Teachers of English Special Imprint Editor 2018-2019: Annual Contract with NCTE to support Professor Fleischer's role as Special Imprint Editor of Principles in Practice Imprint.

National Writing Project (\$20,000)

Expanding the Reach of Everyday Advocacy: The Eastern Michigan Writing Project has, for the past five years, hosted Everyday Advocacy workshops in which teachers learn

lessons of advocacy, focusing on how to create change in their local settings in order to reset the public narrative about literacy education. As we seek ways to further expand the Everyday Advocacy movement throughout the NWP network, we propose three scaffolded initiatives. (1) Creation of a network of Everyday Advocacy ambassadors (2) Creation of a team of five EA-trained educators who will develop an online-version of the current face-to-face version of advocacy training. (3) Offering and staffing a second 2-day workshop to another NWP site.

Elise Sturdivant, Academic Success Programs

Michigan Workforce Development Agency (\$24,600)

GEAR UP 2019: The MI GEAR UP Program partners with Michigan's 15 public universities, and valuable external community partners to provide early intervention services and a scholarship component for low-income students from Wayne County. The MI GEAR UP program serves a cohort of students, beginning in the seventh grade and follows them through the first year of college.

Joseph Breza, Psychology

National Institutes of Health (\$142,547; Year 2)

Lightly Salted: An Optogenetic Approach to Uncover the Role of Type I Cells in Salt Taste Transduction: Sodium (Na⁺) is an essential nutrient, but humans consume this nutrient in excess, which increases the risk of hypertension and stroke. It is currently unknown which cell type within taste buds is responsible for Na⁺-taste transduction. Here, we used an optogenetic approach to determine whether Type I cells within taste buds are responsible for Na⁺ taste. Channelrhodopsin 2 (ChR2), a light-sensitive ion channel, was selectively expressed in GAD65 positive cells. GAD65 cells within taste buds are defined as Type I cells and this was validated using immunohistochemistry. Single unit recordings from taste neurons in the Nucleus Tractus Solitarius (NTS) showed that optogenetic activation of Type I cells evoked taste responses in NaCl-best neurons. Additionally, Na⁺ deprived mice voraciously consumed drinking tubes illuminated via 470nm (blue) light but were indifferent to these tubes when their Na⁺ balance was normal. To our knowledge, these data are the first to show the role of Type I cells in Na⁺-taste transduction. These results could lead to targets directed at Type I cells to enhance salt taste, thereby decreasing the amount of Na⁺ in foods to reduce the risk of hypertension and stroke.

Yichun Xie, Geospatial Research

ESRI (\$1,000)

ESRI 2019 Arc GIS Online Mapping Competition: Recruit middle and high school students to participate in State-wide ArcGIS Online mapping competition; recruit GIS professionals and community leaders to budget the competition; provide cash awards to 10 students who win the competition.

Christina Marsack-Topolewski, School of Social Work

Michigan Health Endowment Fund (\$17,000)

Michigan Older Caregivers of Emerging Adults with Autism and other Neurodevelopmental Disabilities (MI-OCEAN): MI-OCEAN (pronounced "My Ocean")

is a statewide initiative focused on improving the health and well-being of aging family caregivers of youth and adults with autism spectrum disorder and other neurodevelopmental disabilities. Family Support Navigators who are themselves aging caregivers will be recruited and trained to empower other aging caregivers in navigating complex systems via an established peer support model. MI-OCEAN aligns with existing statewide training programs that build, extend and strengthen the workforce capacity of healthcare professionals. A white paper of system change/sustainability recommendations will be developed by a panel of experts using the Delphi method. Wayne State University's Developmental Disability Institute will work with a faculty member from Eastern Michigan University's School of Social Work to implement this study. Neighboring organizations and institutes, including Wayne State University's Institute of Gerontology, the Arc, the Autism Council, and the MDHHS, will help to recruit and/or support this study.

Mohamad Qatu, College of Technology

Michigan Economic Development Corporation (\$1,000,000)

Michigan Enhancement Grant: The funding will be used to improve the infrastructure for information assurance and cyber defense by increasing the electrical capacity in the existing labs, to equip a new lab on autonomous vehicle security with up to date equipment to support teaching and research, to provide training for faculty, and to create a new distance learning cyber security education lab.

Anita Rich, Communication, Media, and Theater Arts

DTE Energy Foundation (\$20,000)

Louis the Lightning Bug 2019: This program allows Eastern Michigan University students to take DTE Energy's "Play It Safe Around Electricity" directly to pre-K and early elementary children throughout southeastern Michigan

Iktimal Hamed, College of Technology Academic Advising Center

DTE Energy Foundation (\$10,000)

Digital Divas 2019: The overall purpose of the Digital Divas program is to introduce more female students to STEM by bringing underserved female students to a college campus where they will have hands on engagements with STEM projects. The expected outcome is to have higher numbers of female students in STEM college classrooms and in STEM professions. External collaborating partners are industry organizations such as GE, ITC Holdings, AT&T, DTE Energy Foundation, Consumers Energy, Mercedes-Benz Financial Services, AAUW, Nexcess, Atomic Object.

Rodney McCurdy, School of Health Sciences

Michigan Community College Association (\$1,000)

EMU Michigan METC Bridge Partner Project Supplement: Eastern Michigan University gives veterans the opportunity to receive college credit for Military Training and Schooling, making this partnership an ideal opportunity for collaboration between METC (a Department of Defense program) and EMU. Our Health Administration program fits well with students who have credit and training in a health care field who wish to continue their academic career in Health Administration (BS). Currently we articulate

with four local community colleges for Health Administration and provide a smooth transfer pathway for those students. This can be expanded to include two METC programs: Medical Logistics and Patient Administration. We will begin to align the curriculum by examining the METC curriculum and ACE recommendations and determining if there is a potential for direct program equivalencies or general education experiences to apply toward the BS degree requirements.

Suleiman Ashur, School of Visual and Built Environments

Michigan Energy Office (\$2,831)

EMU Student Team Participation in Solar Decathlon Design Competition: The Natural E3-House team's goal is to integrate the natural environment and the built environment by using three concepts as the inspiration for our project; Environment, Energy and Economy. The house that we are designing will be located within Ann Arbor city limits, inside of Northfield township. Our site is located in a district of large farmland. The Natural E3 House is intended to be occupied by up to four people. Energy use and water consumption is to be based on four individuals (two children and two adults) actively living in the home year round. The home caters to all demographics and for a family who wants to engage in a sustainable lifestyle. The team has made the environment a priority within this design, focused on categories such as ecology integration, a sociocultural gathering space, rain garden, rainwater collection, gray water use, as well as new innovations with a community greenhouse as well as brand new window glazing technology. Energy conservation, reduction, and production will all be methods used by the Natural E3-House. Sustainable design concepts that will be utilized in the project in order to save energy include both passive and active strategies. The project considers the quality of life, environmental issues, and productivity by focusing on energy reduction in relation to building design and building systems. It will use sustainable building codes and standards in design and systems influenced by LEED, ASHRAE, and DOE Zero Energy Ready Home. This project integrates many design concepts into one structure, such as solar panels, geothermal heating, energy efficiency lightings, and appliances, a home energy manager dashboard, and smart metering.

Julian Murchison, Sociology Anthropology and Criminology

National Institutes of Health (\$21,115; Sub Award from University of Michigan)

Community Liaison and Recruitment Core: To support sufficient effort for Dr. Ajrouch to lead the Community Liaison and Recruitment Core of the Michigan Center for Contextual Factors in Alzheimer's Disease (MCCFAD) through the University of Michigan. Dr. Ajrouch will take leadership in working with the Core team to forge sustaining links with the Arab American community in metro-Detroit, and oversee the development and evaluation of a Participant Research Pool (PRP).

Hitomi Oketani, World Languages

Japanese School of Detroit (\$18,235)

JSD Heritage Language Year 5 2019-2020: This is a five year project to promote Japanese English bilingual/multilingual education including Japanese heritage education for K-12 students, their teachers, and their parents. Eastern Michigan University will

conduct workshops for teachers and parents, observe and consult on classroom instruction, and assist teachers with curriculum development.