# Metropolitan State University of Denver
# **Sponsored Research and Programs**

## Annual Report FY 2018-19

METROPOLITAN STATE UNIVERSITY OF DENVER

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## MSU Denver: The Model Urban University

Metropolitan State University of Denver (MSU Denver) believes that every student should have an opportunity to better their life. We know that real-world higher education is the key factor in upward economic and social mobility. MSU Denver students achieve their goals through a unique learning model that blends the theoretical and practical, balancing human and technical skills to cultivate graduates who have the traits today's employers want. Our career- and community-minded programs, partnerships and pathways have made us a leading innovator in preparing students to succeed after graduation while also developing workforce pipelines for high-demand Colorado industries.

As a model urban university focused on opportunity, diversity, excellence and transformation, MSU Denver students mirror the faces of Colorado, embodying a wide array of backgrounds and cultures. The campus environment provides students the opportunity to develop multicultural awareness critical to thriving in today's workplace while embracing each student's individuality.

With more than 85 majors and 70 minors, as well as seven (7) Master's Degrees offered in the areas of Business Administration, Professional Accountancy, Health Administration, Social Work, Arts in Teaching, Cybersecurity and Human Nutrition and Dietetics, MSU Denver enrolls more than 20,000 students annually and works to connect with more than 90,000 alumni.

https://tinyurl.com/yx984cw4

## MSU Denver: A Hispanic Serving Institution

In 2019, MSU Denver was federally designated as a Hispanic Serving Institution (HSI) and is actively engaged in work to ensure that the university maximizes all opportunities associated with this designation. MSU Denver is committed to ensuring that faculty receive support that will stimulate greater engagement in research activities and program development related to the HSI designation. In addition, the University looks to strengthen strategic collaborations with partners, both internally and externally, to support efficiency in HSI-relevant work.

President Emeritus Stephen Jordan launched MSU Denver's HSI obtainment efforts in 2007 by forming a task force to boost the recruitment and retention of Hispanic/Latinx students. In 2008, Colorado's population was 20 percent Hispanic/Latinx, while the university's student body was only 13 percent Hispanic/Latinx. In the 10 years following, the population of Hispanic/Latinx students at MSU Denver nearly doubled. The university crossed the 25 percent threshold required for HSI status in 2017.

MSU Denver's HSI efforts go hand-in-hand with the Colorado Department of Higher Education's Master Plan, which calls for erasing equity gaps among ethnic groups. The Master Plan's second strategic goal addresses the fact that Colorado's largest and fastest-growing ethnic group, Hispanic/Latinx, has the lowest average educational attainment and the lowest college enrollment rate of any ethnic group in the state. As of 2017, just 29 percent of Hispanic/Latinx adults in Colorado possessed a college degree, compared to 64 percent for white adults. The Master Plan's statewide goal is 66 percent attainment for Colorado adults.

# Reimagine possible

Photos by Aly McClaran

I am thrilled to see the wide range of faculty and staff activities that are supported by grants and highlighted in this Annual Report! It is an impressive representation of the amazing work MSU Denver faculty and staff do to support our mission of educating and supporting students as they pursue their personal and professional dreams! It also highlights the many ways in which we engage with our surrounding communities to learn, to share expertise, and to generate mutually beneficial outcomes.

The Office of Sponsored Research and Programs (OSRP) supports high-quality, externally-funded scholarly activities, community based research (CBR) and service projects, and student support programs at MSU Denver. This Annual Report demonstrates the fantastic projects that can be supported through collaboration with MSU Denver faculty and staff.

Scholarly activities advance knowledge and artistic discoveries, help faculty maintain currency in their disciplines, and enhance MSU Denver's reputation in higher education and the community. CBR and service projects integrate MSU Denver more deeply in its surrounding community(s) to the mutual benefit of all. Student support programs contribute positively and meaningfully to student persistence through to graduation and their ability to achieve their personal and professional dreams. Each type of activity can be found highlighted here.

I thank each and every one of you who has participated in these successes!

**Vicki L. Golich, Ph.D.**
**Provost and Executive Vice President of Academic Affairs**

PRINCIPAL INVESTIGATOR:

## Dr. Dawn Matera Bassett

GRANTS:

- **USDHHS - HRSA MSW**
- **USDHHS - HRSA ParaPro**
- **CDHS - Child Welfare-THRIVE**

Principal Investigator Dawn Matera Bassett received two, four-year grants from the U.S. Department of Health and Human Services (USDHHS): the $1.1 million Health Resources and Services Administration (HRSA) Para Professional program (ParaPro) and the $2.1 million grant for the HRSA Master's in Social Work (MSW) program with expanded funding of $400,000 for Opioid and Substance Use prevention and treatment, for a total award of $2.5 million.

The proposed projects address a critical need in Colorado's behavioral system by creating stipends for students seeking to be Certified Addictions Counselors (I or II), obtain a Certificate in High Risk Youth Studies, or a Masters in Social Work. These projects include developing and strengthening applied community experiences and field placements that emphasize mental health, substance use and abuse disorders, behavioral health, and integrated health prevention and treatment. The projects focus on rural, vulnerable, or medically underserved populations facing behavioral health challenges. The grants will build upon existing literature to strengthen curricula and integrate evidenced-based practice models. The partnership's focus is to build a responsive integrated and behavioral health workforce prepared to engage in multicultural and multilingual interprofessional practice.

Both programs participate in the recruitment, selection, placement, and training of MSW and certificate seeking students in appropriate field placements/internships. The PI and other project staff develop targeted learning experiences and appropriate field placement sites, which are responsive to the needs in underserved areas.

Dr. Matera Bassett is also the PI on a grant from the Colorado Department of Human Services (CDHS). The grant "THRIVE" was awarded to address the impact of vicarious trauma on public child welfare workers. Over the past five years, the project has partnered with 21 rural and urban counties across Colorado. Funded through the Child Abuse Prevention and Treatment Act (CAPTA), $372,000 has been used to provide training, consultation, skills labs, debriefing, coaching and a confidential hotline for workers, supervisors, and managers.

During the past 30 years, Dr. Matera Bassett has worked with children, adolescents, transition-aged youth and their families who have complex behavioral health issues including co-morbid substance use and mental health disorders. She has worked in residential, day treatment, community-based, and sub-acute mental health settings as a Program Manager; Continuity of Care Coordinator; Family, Group & Individual Therapist, Program Specialist & Trainer. Dr. Matera Bassett has also developed curricula and trained therapists, case workers, teachers, foster parents, and paraprofessionals on how to effectively work with children and adolescents and their families. She has drafted policy white papers and legislation that have been adopted by the state of Colorado. Dr. Matera Bassett's research interests lay in improving the efficacy of behavioral health services provided to children, adolescents and families. The foci of her interests are on projects which support clinical staff development; build personal, familial and community assets; and explore the efficacy of interventions.

PRINCIPAL INVESTIGATOR:
**Dr. Randi Brazeau**

CO-PRINCIPAL INVESTIGATOR:
**Dr. Sarah Schliemann**

GRANT:

## • NFWF - Investigation of Degraded Sites and Riparian Restoration along South Platte River (CO)

Principal Investigator (PI) Dr. Randi Brazeau and Co-PI Dr. Sarah Schliemann received $31,445 from the National Fish and Wildlife Foundation (NFWF) for a grant titled "Investigation of Degraded Sites and Riparian Restoration Design along the South Platte River through Engagement of Underserved Populations". University students monitored six degraded water quality sites along the South Platte River through the Denver Metro Area over a year and proposed riparian restoration designs for these sites. Additionally, high school, community college, and university students took an eight-week, field-based summer water course to learn water sampling, assessment, management, and improvement techniques. Upon completion, the students showcased their restoration designs to community partners and water professionals.

The project's goal was to improve water quality through systematic monitoring and the design of riparian restoration plans in targeted areas along the South Platte River by engaging underserved populations. This goal was met through 1) University students conducting systematic monitoring of 14 sites along the South Platte River and intensive examination of two specific degraded sites to determine sources of pollutants; 2) High school, community college, and university students from underserved populations receiving financial support to enroll in a college course on water management, quality and improvement, with a focus on learning proper sampling techniques and generating data to characterize the river's health; and 3) Students designing restoration plans to help mitigate water quality degradation at two targeted sites. Water sector stakeholders helped facilitate the goals.

Dr. Randi Brazeau, P.E. earned a PhD in Civil Engineering, Environmental Water Resources from Virginia Tech in 2012 and Professional Engineering License in 2015. She teaches a wide array of courses across environmental science and water resources. In addition to teaching, Dr. Brazeau earned the inaugural award for Outstanding Advisor at MSU Denver in 2019. She is also active in undergraduate research examining water quality in urban rivers and STEM education with K-12 teachers.

PRINCIPAL INVESTIGATOR:
**Dr. Jennifer Capps**

CO-PRINCIPLE INVESTIGATOR:
**Dr. Emily Matuszewicz**

GRANT:

## • USDHHS – HRSA Health Careers Opportunity Program

Principal Investigator (PI) Dr. Jennifer Capps and Co-PI Dr. Emily Matuszewicz received a $3 million grant from the U.S. Department of Health and Human Services (USDHHS) for the development of a Health Careers Opportunity Program (HCOP) Academy, through two structured programs: the HCOP National Ambassadors Program (MSU Ambassadors) and a HCOP Adult/Non-Traditional Program (MSU Non-Traditional Program) for veterans and other adult students. The target audience for MSU Ambassadors is educationally or economically disadvantaged allied health undergraduate transfer students from a range of institutions. The target audience for the MSU Non-Traditional Program is educationally or economically disadvantaged "non-traditional" undergraduate students who are ages 25 and older or veterans.

MSU Denver's HCOP will be modeled after the evidenced-based Healthcare Interest Program (HIP), which was piloted at Denver Health in 2009. It provides undergraduate students from disadvantaged backgrounds who are interested in healthcare careers a combination of scholarship/stipends; training in health equity, financial wellness, emerging health issues (including opioid abuse and mental/behavioral health) and general healthcare training; job shadowing and clinical observation opportunities; mentoring and intrusive advising to support successful retention, matriculation and graduation with a four-year health-related degree; and support to advance to graduate programs and/or employment in a health-related field. MSU Denver's HCOP Academy targets and gives preference to students who are low-income (Pell eligible), first-generation, underrepresented minorities (including immigrants and refugees who are permanent U.S. residents), non-traditional (ages 25 and over), and veterans.

As the dean of the College of Professional Studies, Dr. Capps has more than 23 years of experience in academic leadership, instruction, and behavioral health. She also worked extensively in the areas of psychiatric evaluation, community-based collaborative program development and trauma response involved in teams who responded to the shootings at the Aurora theatre and Columbine High School. Capps' priority at MSU Denver is to leverage a diverse community through collaboration and partnership to support student success.

PRINCIPAL INVESTIGATOR:

## Lori Darnel

GRANT:

## • ORPC - Social Work Program

Principal Investigator Lori Darnel, through the MSU Denver Department of Social Work, is working with the Office of Respondent Parent Counsel (ORPC) on a two-year, $16,000 grant to outline results of the data analysis and evaluation of the ORPC Social Work Program. The program is a pilot project which partners attorneys and social workers in the representation of parents in child protection actions. Dr. Dawn Matera Bassett is also collaborating on the research for ORPC, which includes mixed method research involving stakeholder interviews and analysis of data provided by ORPC and the Colorado Department of Human Services. Data will be analyzed to address the Social Work Program's effectiveness in improving representation, which includes looking at the relationship between days of children in out-of-home placement as well as permanency outcomes. The research will result in a final report which will be provided to the Colorado General Assembly in support of further state funding for the project. As a part of the analysis, evaluators will review research literature and practice articles to identify key components, strategies, and best practices from comparable programs that provide social work services to respondent parent counsel, as well as other related practices in the child protection system. Improvement recommendations will be made to the procedures, the processes, and staff capacity, as well as training to enhance the influence of the ORPC Social Work Program.

Lori Darnel holds a Juris Doctorate and Masters in Social Work, and is an Assistant Professor in the Department of Social Work. Ms. Darnel focuses on teaching advocacy skills and interdisciplinary education with an emphasis on legal issues and policy. Ms. Darnel practiced law extensively in criminal, juvenile, and family law areas. In addition, Ms. Darnel practiced social work with an emphasis in program development, as well as non-profit management.

PRINCIPAL INVESTIGATOR:

## Dr. Rebecca Ferrell

GRANT:

## • USEPA - Urban Waters Grant

Principal Investigator Dr. Rebecca Ferrell received a three-year, $21,676 subaward in cooperation with Groundwork Denver from the U.S. Environmental Protection Agency (USEPA) to present workshops and other training for high school students (the Blue Team) in techniques of environmental water sampling and analysis. Dr. Ferrell and students in her lab provided specific services to monitor water quality and investigate sources of *Escherichia coli* and other markers of fecal contamination in Lower Bear Creek. MSU Denver students (Metro Mentors) were employed to assist with the workshops and mentor Blue Team members in cooperation with Groundwork Denver staff during field sampling, laboratory testing and data analysis.

"Water Quality Basics" (WQB) workshops offered for each cohort of Blue Team students provided basic water quality information, field instructions in sampling and measurement techniques, and laboratory experience with processing samples for enumeration of *E. coli* and interpreting results. An advanced workshop, "Filtration and DNA Analysis", focused on using the molecular technique of polymerase chain reaction (PCR) to detect fecal pollution by the presence of human-associated *Bacteroides* DNA, and was offered for students who had completed the WQB workshop. Metro Mentors accompanied Blue Team members as they carried out the program and assisted Groundwork Denver staff members in supporting the efforts of the Blue Team, including record keeping and data entry and analysis. Metro Mentors served as mentors and guides to the students, as well as scientific consultants and partners in fieldwork.

Dr. Ferrell is a microbiologist with interests in water quality and the nitrogen cycle, particularly ammonia oxidation and further nitrification in the context of sewage treatment. She is also interested in environmental markers of fecal pollution and, using cultivation and molecular techniques, her lab enumerates *E. coli* and *Bacteroides*, isolates bacteria of interest, and uses DNA sequence analysis to determine the identities of indicator organisms with the hope of better insight into their ecological roles.

PRINCIPAL INVESTIGATOR:

## Dr. Amanda Schaeffer Fry

GRANT:

## • NSF - RUI: Structure & Representations of Finite Groups

Principal Investigator Amanda Schaeffer Fry received a $109,995 grant from the National Science Foundation (NSF) for her project titled “NSF-RUI: Structure & Representations of Finite Groups”. The proposed research focuses on group theory and representation theory of finite groups, especially from a character-theoretic perspective. The goal of the proposed research is to make progress on a number of problems that relate the structural properties of finite groups to their representation-theoretic invariants, which can often be reduced to the situation of finite simple groups.

Three concrete lines of problems were proposed, which are extensions of past and ongoing research. Part of the activities under the proposed RUI grant will be to recruit, encourage, and mentor students to pursue undergraduate research projects. The PI’s work with students as active participants in outreach activities will promote retention and diversity in the STEM fields. The proposed research will involve some computations and other activities that will be well-suited for involving undergraduate students and introducing them to group theory and mathematical research.

Dr. Schaeffer Fry’s focus area in mathematics is the abstract topic of group theory and representation theory. Groups are mathematical objects that encode the symmetry of objects, such as those coming from nature, art, communication networks, or any other place that symmetry might play a role. Representation theory is a tool used to better understand the structure of a group and the symmetries it represents by giving us a way to view, in some sense, an abstract group as a group of matrices whose structure is often easier to understand.

PRINCIPAL INVESTIGATOR:

**Dr. Allyson Garcia**

GRANT:

## • USDE - Student Support Services

Principal Investigator Dr. Allyson Garcia received a five-year, $1.5 million grant for Student Support Services (SSS) from the United States Department of Education (USDE) TRIO program. The project's purpose is to increase the retention and graduation rates of low-income, first-generation college students, and students with disabilities. The project will also improve the students' financial literacy, guide them through the graduate school application process, and assist in developing non-cognitive factors. The project will serve 200 eligible students, and as a result, the program will help foster an institutional climate supporting their ultimate success.

The project has three areas it will address: the persistence rate, the good academic standing rate, and the graduation rate. In order to achieve these objectives, the SSS project plans to offer comprehensive academic, financial, and personal support services that will contribute to the program's overall mission. The project is accessible and visible to all students who wish to apply for the program, as well as to those who are continuing SSS participants. This proposal also addresses the Competitive Preference Priorities by outlining strategies that the SSS project employs to develop non-cognitive factors that affect student retention, graduation, and success. Strategies for providing individualized counseling to SSS participants for personal, career, and academic matters are also addressed.

Allyson's expertise includes working with students with disabilities as she holds a Masters in teaching from Metropolitan State University of Denver. She also specializes in policy implementation and analysis and recently received her doctorate specializing in higher education policy from the University of Denver. She strives to create equitable programs, policies and practices for students on campus, which is rooted in social justice and critical theory frameworks.

PRINCIPAL INVESTIGATOR:

## Dr. April Hill

GRANT:

- **USDC - MSU Denver-PREP**

Principal Investigator Dr. April Hill received a five-year, $708,554 grant from the U.S. Department of Commerce (USDC) for the MSU Denver-PREP program. The program provided research experience, financial assistance, and academic and career mentoring to assist science, technology, engineering and math (STEM) majors in preparation for graduate school and/or careers as scientists. This program served up to 24 undergraduate STEM majors at MSU Denver over five years.

Participants joined undergraduates from other institutions who were already a part of the highly successful NIST-PREP-Boulder program that conducted research at the NIST Boulder Laboratory and received mentoring regarding graduate schools and STEM careers from their advisors. All MSU Denver-PREP scholars were required to write at least one paper and were encouraged to submit the paper for publication. As part of the program, it was compulsory for students to present their work to their peers, either as a seminar at NIST Boulder or MSU Denver, at the MSU Denver Undergraduate Research Conference, and/or at a regional or national conference. To help alleviate any hardships, students selected for these PREP internships were financially supported with 100% tuition benefits, an hourly wage, and travel funds to present their work at a conference.

The program's success was measured in terms of the number of conference presentations given; the number of students who pursued graduate study or obtained employment in a STEM field within one year of graduation; and the number of collaborative research projects resulting from the program.

Dr. Hill has a PhD in Analytical Chemistry and a Graduate Certificate in Forensic Science from Iowa State University. Her thesis topic was water quality analysis for spaceflight and she participated in several "zero-g" flights with NASA. She has current research projects in archaeochemistry, chemical education for visually-impaired students, and forensic chemistry. She has collaborated with scientists from the Denver Museum of Nature & Science and the National Institute of Standards and Technology in Boulder.

PRINCIPAL INVESTIGATOR:
**Dr. Elizabeth Hinde**

CO-PRINCIPAL INVESTIGATOR:
**Dr. Lisa Altemueller**

CO-PRINCIPAL INVESTIGATOR:
**Dr. Jan Perry Evenstad**

GRANT:

## • USDE - Equity Assistance Center (EAC)

Principal Investigator Elizabeth Hinde and Co-PIs Lisa Altemueller and Jan Perry Evenstad (Director of EAC), received a five-year, $7.5 million grant from the U.S. Department of Education (USDE) to operate an Equity Assistance Center to serve Region IV. The program comprises 13 states and 3 territories covering 3,326 school districts with more than 1.2 million students. The goals of the EAC are to build local capacity to improve and sustain the public education system's ability to address the issues occasioned by desegregation and inequities; increase equitable opportunities for all students regardless of race, sex, religion, national origin, or socioeconomic status (SES); and prepare and implement plans for the desegregation of public schools, which should address equity in the development of effective methods of coping with special educational problems occasioned by desegregation.

EAC Region IV will focus on providing better educational opportunities for all students through coordinated technical assistance in strengthening teacher effectiveness, recruitment, and retention; the disparate discipline of students of color; efforts to close the achievement gap rooted in SES; equitable access to high-quality learning opportunities; the elimination of discordant placement based on race and/or gender in remedial and advanced programs/classes; and the outreach and engagement of families and communities.

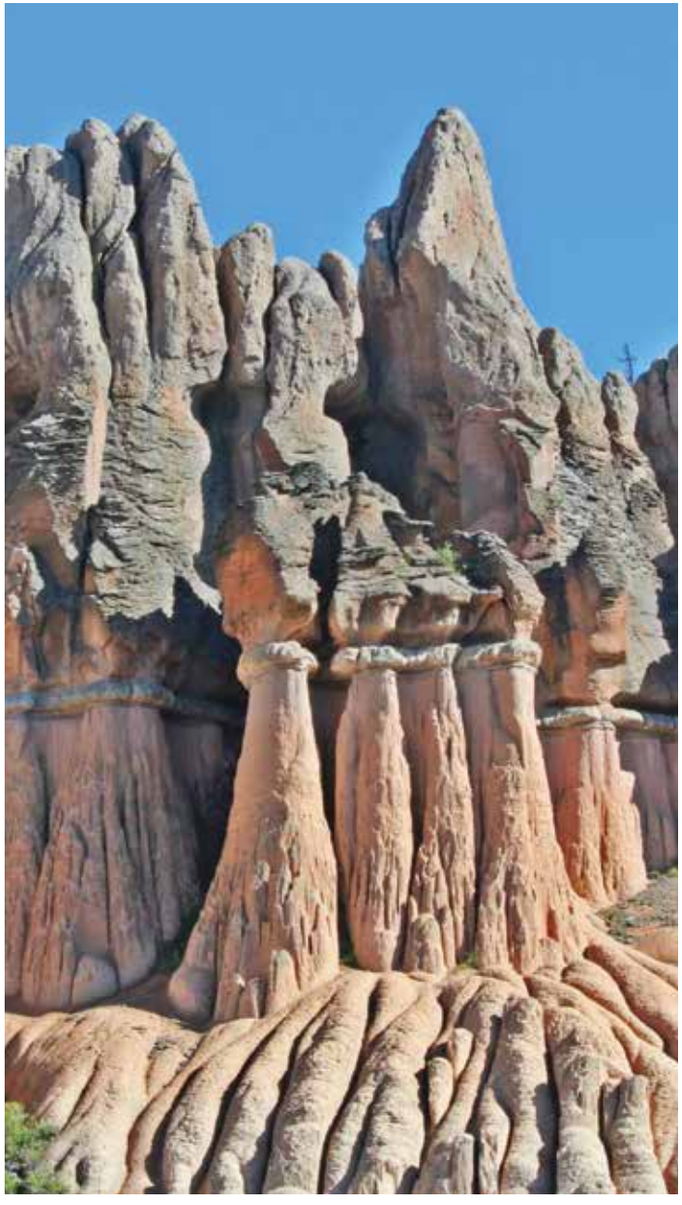
Elizabeth Hinde is Professor and Founding Dean of the School of Education at Metropolitan State University of Denver. Prior to coming to MSU Denver, Dr. Hinde was Director of the Division of Teacher Preparation at Arizona State University's Mary Lou Fulton Teachers College, one of the largest teacher preparation programs in the country, where she is now Emeritus. Dr. Hinde began her career and was trained as a teacher. She taught elementary school for 20 years in Mesa, Arizona, before entering into higher education. Along the way, Dr. Hinde received the National Council for Geographic Education's Distinguished Teaching Award and the Geography Excellence in Media Award. A featured speaker at many conferences and meetings, she is the author of numerous publications concerning social studies education, curriculum issues, and teacher preparation.

PRINCIPAL INVESTIGATOR:

## Dr. Jason Janke

GRANT:

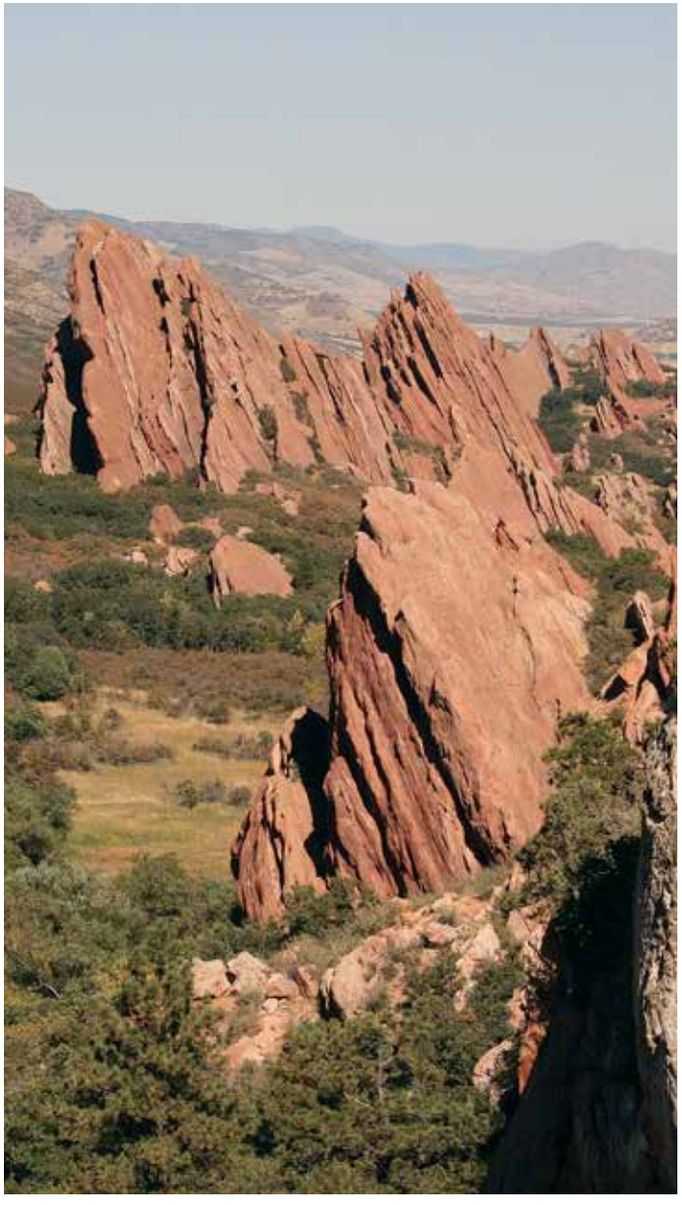
## • NSF - Binghamton Geomorphology Symposium



Principal Investigator Dr. Jason Janke received a one-year, $54,240 grant from the National Science Foundation (NSF) in support of the 50th Binghamton Geomorphology Symposium (BGS) which will be held at MSU Denver in October 2019. The BGS will explore and showcase geomorphology from its past to its potential future advancements. The discipline's history is an important educational resource that can be used to help shape perspectives of modern geomorphologists. BGS will promote and enhance graduate and undergraduate student education and participation by providing partial financial support to at least 20 students to attend and present their research in a poster session. Underrepresented groups will be recruited. The organizers will seek to foster and promote diversity by selecting the list of invitees who come from a highly accomplished group of international scientists representing diversity in gender, geography, career stage, and perspective. The symposium will contribute substantially to the scientific foundations of geomorphic research and address topics including natural hazards, environmental change, human impacts, landscape evolution and management, and policy.

The BGS has six main themes based on the foundation of topics presented at the previous symposia. These themes include: 1) Forces 1 - Glacial, Fluvial, and Periglacial; 2) Forces 2 - Tectonics and Gravity; 3) Biogeomorphology and Soils; 4) Concepts and Paradigms; 5) Anthropogenic Influences; and 6) Applications. Each theme will have a talk and background regarding how the BGS has advanced the research frontier. Several presentations that will focus on the present and future state of BCS themed research will follow.

Jason Janke's interest in geomorphology began during a Sangre de Cristo Mountains field course taught at Indiana State University, where he obtained his Master's degree in 2000. He obtained his PhD from the University of Colorado-Boulder in 2004. He began teaching at MSU Denver in 2006 and maintains an active research program in the Rocky Mountains of Colorado and Andes of Chile. Currently, he is an Associate Dean in the College of Letters, Arts, and Sciences.



PRINCIPAL INVESTIGATOR:
**Raquel Jimenez**

CO-PRINCIPAL INVESTIGATOR:
**Dr. Adriann Wycoff**

GRANT:

## • USDE - College Assistance Migrant Program (CAMP)

Principal Investigator (PI) Raquel Jimenez and Co-PI Dr. Adriann Wycoff received a five-year, $2.1 million grant from the U.S. Department of Education (USDE) for the College Assistance Migrant Program (CAMP) grant in 2015. The goal of MSU Denver CAMP is to help students from migrant and seasonal farm worker backgrounds enroll and complete their first year of college, continue to their second year, and eventually achieve a post-secondary degree.

The need for MSU Denver CAMP is significant and growing. According to the National Center for Farmworker Health, migrant families earn an average annual salary of $15,000 to $17,500 per year, and 30% of farm workers have family incomes below the U.S. poverty guidelines. The CAMP program has a 15-year history at MSU Denver, which provides a solid and consistent foundation that continues to serve the migrant and seasonal farm worker population in the Denver Metro area and its surrounding counties. Since 2000, the MSU Denver CAMP program has supported over 515 students and aims to serve an additional 185 students over the next five years. Through this program, MSU Denver will reach a total of 700 students, helping to break the cycle of poverty by removing educational barriers and facilitating their progress toward post-secondary degree attainment.

Raquel Jiménez is a proud CAMP and MSU Denver alumna. Her background led her to pursue equity and social justice, particularly with and on behalf of vulnerable and marginalized populations. She earned both her undergraduate and graduate degrees in Social Work at MSU Denver and the University of Denver. The best part of her career is building authentic relationships with students and families.

PRINCIPAL INVESTIGATOR:
**Dr. Janelle M. Johnson**

CO-PRINCIPLE INVESTIGATOR:
**Dr. Hsiu-Ping Liu**

CO-PRINCIPLE INVESTIGATOR:
**Dr. Richard Wagner**

GRANTS:

- **NSF ITEST - Community-based Approach to Engaging Students and Teachers in Effective STEM Education**
- **NSF Noyce - Inclusive STEM Teaching Preparation at an Urban Commuter University (U-STEM)**

Dr. Janelle M. Johnson, Principal Investigator (PI), Co-Principal Investigator Dr. Hsiu-Ping Liu, and leadership team members Dr. Brooke Evans and Dr. Mark Koester were awarded a National Science Foundation (NSF) Robert Noyce grant of $1,449,970 for their project, "Inclusive STEM Teaching Preparation at an Urban Commuter University (U-STEM)." The project prepares STEM majors with experiences, skills, and knowledge to become highly effective inquiry-based teachers committed to working in high-need urban secondary schools.

Dr. Johnson and Co-Principal Investigator Dr. Rich Wagner were awarded a $989,533 National Science Foundation NSF-ITEST grant, "Community-based Approach to Engaging Students and Teachers in Effective STEM Education" design-based research to better understand and promote practices that increase students' motivations and capacities to pursue careers in the fields of science, technology, engineering, or mathematics (STEM). The project's strategy purposefully combines STEM equity pedagogies with classroom science protocols from Global Learning and Observation to Benefit the Environment program.

Dr. Johnson is an Associate Professor in STEM Teaching and Learning in Secondary Teacher Education. Community-based organizations she has worked with include the Colorado Association of Black Professional Engineers and Scientists (CABPES) and the Colorado I Have a Dream Foundation. Her current work focuses on professional development with educators towards interdisciplinary and inclusive STEM teaching and learning. She is passionate about supporting community-based connections between formal and informal STEM education. She received her Bachelor of Science in Elementary Education with a specialization in ESL from Northern Arizona University in 1997, then taught Math and Earth Science courses to bilingual and ESL students in Guatemala and in Arizona for eight years at elementary, middle, and high school levels. Her 2011 PhD from University of Arizona is in Teaching, Learning, & Sociocultural Studies, and her dissertation research examined the outcomes of professional development with teachers in Guatemala and Mexico.

PRINCIPAL INVESTIGATOR:

## Dr. Devi Kalla

GRANT:

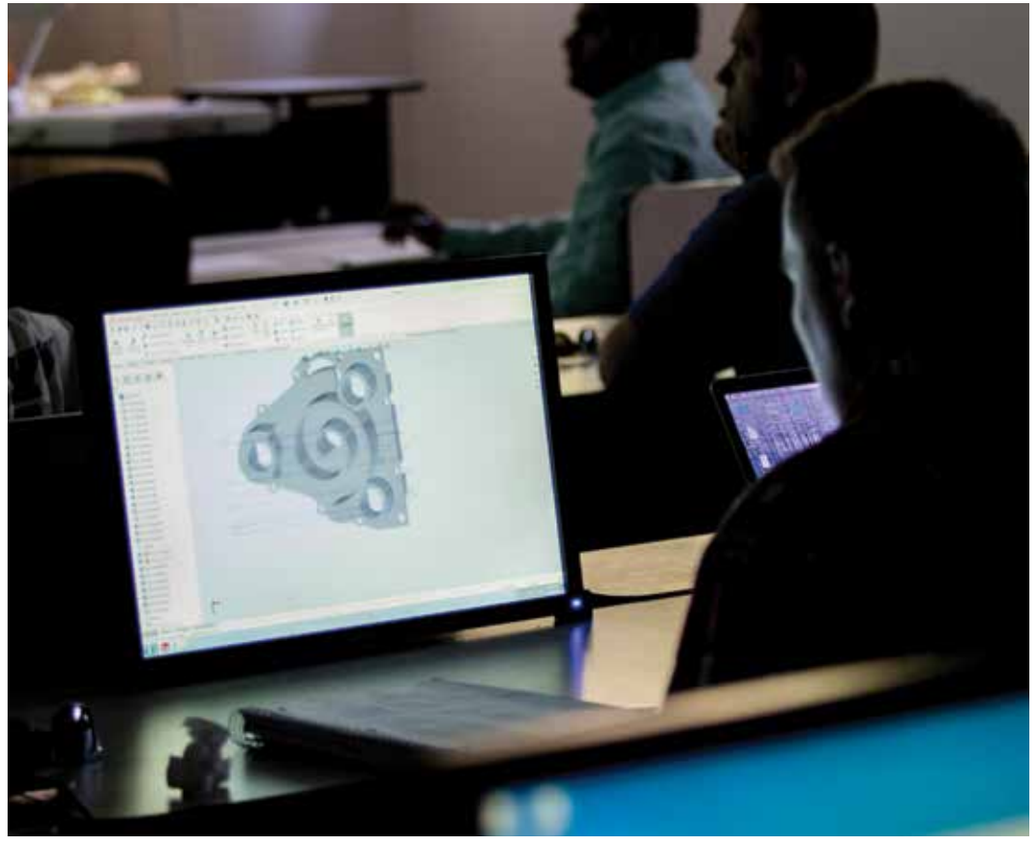
## • USDL – Youth Career Connect

Principal Investigator Devi Kalla received $183,168 from the U.S. Department of Labor (USDL) for a grant for the Denver Plan for Postsecondary and Workforce Readiness project in conjunction with Denver Public Schools (DPS). This multifaceted project reflected labor market data and addressed the unique needs of particular schools and communities. Eight targeted high schools offered a Career and Technical Education (CTE) pathway that included sequenced courses beginning in ninth grade that culminate in a diploma, industry-recognized credentials and certificates, and earned college credit.

Students involved in the program completed a paid internship or job shadow and a capstone project that showed how they applied the skills and knowledge learned in the classroom to their workplace-based learning experience. The industries targeted were engineering, energy, manufacturing, medical, information technology, and finance. Students had access to mentorships, pre-apprenticeships, career and technical student organizations, and work readiness training. DPS and its workforce investment system partner provided career fairs and summer industry academies.

In addition, students had access to an array of wraparound supports, e.g., transportation to CTE classes and internships, counseling, tutoring, career/college planning, specialized services for students with disabilities or who do not speak English as their primary language, and community service and leadership development activities. Over the course of the project, approximately 15,435 students in grades 9–12 at eight schools were served.

Devi Kalla is currently a Professor in the Department of Engineering and Engineering Technology at MSU Denver. He has strong experience on composite manufacturing, 3D printing, and modeling. As evidence of his research success, Kalla's work has resulted in at least 2 first-authored book chapters, 18 presentations, and 28 peer-reviewed scholarly publications, appearing in leading international journals and international conference proceedings – an extremely productive and exemplary record compared to that of his peers in the mutual field of research.



PRINCIPAL INVESTIGATOR:

## Dr. Hsiu-Ping Liu

GRANT:

## • NSF - Louis Stokes Colorado Wyoming Alliance for Minority Participation (CO-WY AMP)

Principal Investigator Hsiu-Ping Liu received a $172,000 grant for a five-year program from the National Science Foundation (NSF). The objective of this program is to increase retention and subsequent attainment of baccalaureate degrees of underrepresented minority students in STEM fields. The program at MSU Denver is part of the Colorado Wyoming alliance network that has been funded since its inception in 1996. This program provides academic, financial, social, and career-related support to CO-WY AMP members; such as faculty advising, peer tutoring and mentoring, textbook borrowing program, facilitating pure and applied undergraduate research experience, passport to success program, CO-WY AMP specific scholarships, and more.

In addition, the program provides intentional, timely programming, communications, and outreach to assist students. This program's retention rate ranged from 86-90% for the last four years compared to the university's 68% overall retention rate. Furthermore, the number of graduates has increased from less than 10 per year to 26 in 2016/2017, 50 in 2017/2018, and 56 in 2018/2019.

Hsiu-Ping Liu is a professor in Biology and Director of the Center for Advanced STEM education (CASE). She leads CASE in promoting STEM equity and excellence and building a local STEM-ready talent pipeline. She is a passionate researcher for more than 30 years focused on evolution of mollusks. Since research changed her life and career path dramatically, Hsiu-Ping is passionate about encouraging undergraduate students to perform research.

PRINCIPAL INVESTIGATOR:

## Carla Mirabelli

GRANTS:

- **U.S. Department of Education - TRIO Upward Bound**
- **Colorado Department of Education - 21st Century Community Learning Center Grants**
- **Denver Mayor's Office - 2A/Healthy Lifestyles**
- **Denver Public School's Office of Student Engagement – Summer Credit Recovery Program**
- **Adams 14 School District – School Year and Summer Credit Recovery Program**

Principal Investigator Carla Mirabelli has worked at MSU Denver for ten years providing support to secure funding and manage programs from a variety of resources, including school districts, local government, state education agencies and the federal government. She has secured resources from neighboring school districts, including Denver Public Schools and Adams 14, two multi-year contracts from the Denver Mayor's Office 2A/Healthy Lifestyles grant program, and two multi-year grants from the Colorado Department of Education's 21st Century Community Learning Center grant program. In addition, Carla is currently overseeing a U.S Department of Education TRIO Upward Bound grant. Prior to her work at MSU Denver, Carla supported fundraising and development for a national education policy organization, and has experience securing contributions for members of congress and non-profit organizations from corporations and individuals. In her twenty years of professional experience leveraging and managing resources from a variety of stakeholders, she has most enjoyed her work in higher education supporting MSU Denver to positively impact the academic achievement of K-12 students and increasing professional opportunities for University students.

The Center for Urban Education (CUE) has partnered with Denver Public Schools since 2012 to (1) ensure that young people and their families have access to a continuum of support that extends beyond the school day and building and brings the university and its resources directly to their doorsteps and (2) strengthen the preparation of prospective teachers, counselors, and other future education professionals with valuable job training while students at MSU Denver.

This continuum of support (developed and fine-tuned by CUE with a mix of federal, school district, city, state and university funding) encompasses tutoring, intervention, and credit-recovery services to increase student achievement in core academic areas required for school and college success; enrichment programs and activities to build students' motivation to learn, participate, and advocate for their own educational success; and family engagement to guide students and parents through college readiness requirements and processes, and build their confidence that opportunities for postsecondary education and workforce success are available to them. CUE takes pride in serving middle- and high-school students who are least likely to have access to, and who stand to benefit the most from such support.

In addition to the 21st Century College Readiness Center (21st CCRC) out-of-school programs it has established at high-need partner schools since 2012, CUE recently began managing the U.S. Department of Education (USDE) funded Upward Bound program serving first-generation high school students and is now working, under contract, with Adams City High School to provide both in-school and summer credit recovery tutoring support.

PRINCIPAL INVESTIGATOR:

**Dr. Andrew Muldoon**

CO-PRINCIPLE INVESTIGATOR:

**Dr. James Aubrey**

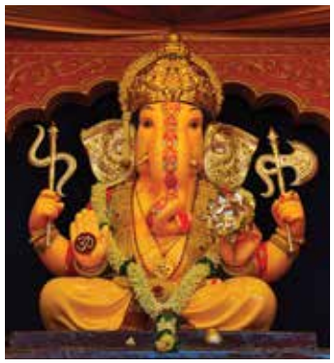
GRANT:

## • USDED - India Group Projects Abroad

Principal Investigator Dr. Andrew Muldoon and Co-PI Dr. James Aubrey received a $92,430 grant from the U.S. Department of Education (USDED) to conduct a four-week, short-term seminar on modern India during the summer of 2018. This project was designed to improve area studies curricula at the secondary and postsecondary levels, and to better integrate international studies into the general curriculum. The seminar was intended to enhance knowledge among participants and improve the quality of instruction with regard to India in particular, in addition to area studies in Denver and Colorado.

The specific goals of the project were to strengthen participants' expertise and competence about India and its history and culture; enhance the quality of teaching about South Asian civilizations through development and acquisition of relevant teaching materials (e.g. artifacts, publications, and personal experiences); and disseminate India-focused knowledge and curricula to other educators through workshops, participation in professional meetings, and appropriate technologies and publications. Upon its conclusion, this seminar gave its participants the skills to teach effectively about Indian history and society, and enabled them to develop and implement more accurate, comprehensive, and enriching curricula and activities in their classrooms. Educators are now more prepared with the tools to discuss topics that deal with the incisive issues, including state formation, national development, the role of religion and religious diversity in the modern world, and issues of peace and security from an Indian and South Asian perspective.

Andrew Muldoon teaches world, South Asian, and modern history at MSU Denver. He is the author of a book on British politics and Indian nationalism. His current project focuses on soldiers' experiences in India during World War II that has been featured in a chapter in a recent collection on the British Empire and the war.



PRINCIPLE INVESTIGATOR:

## Dr. Peggy O'Neal-Jones

GRANT:

## • LOC – TPS Regional

The Teaching with Primary Sources Western Region (TPSWR) is a grant funded by the Library of Congress (LOC), offering professional development opportunities to K-12 educators, inservice and preservice, across fourteen states in the western United States, including Alaska and Hawaii.

Housed at MSU Denver since 2004, the TPSWR has been unlocking the power of primary sources to further historical and critical thinking skills, in-depth content knowledge, and the exploration of the 60 million+ free-to-use historical primary sources and teaching strategies located at the Library of Congress website (loc.gov).

TPSWR offers assistance and grants of up to $20,000 to school districts, colleges and universities, library systems, and cultural institutions on a rolling basis to integrate TPS teaching strategies and resources from the Library of Congress. Hundreds of educational organizations have collaborated with TPSWR to give students a deep understanding of local, national, and international curriculum, empathy for the past, perspective on the present, and the ability to influence the future.

Keeping a strong foothold in both the academic and professional realms of emerging media, Dr. Peggy O'Neal-Jones developed the Interactive Media concentration in 1995 and the Social and Mobile Media concentration in 2013 at MSU Denver. Peggy presents nationally and internationally about the connection between emerging media and learning. After a 26-year career at Metropolitan State University of Denver (MSU Denver), Peggy retired in 2016. She is professor emeritus of journalism and media production and recipient of MSU Denver's first-ever Extraordinary Service Award in 2016

Dr. O'Neal-Jones is the Executive Director for the Library of Congress Teaching with Primary Sources Western Region (TPS) program and the TPS Teachers Network at MSU Denver. TPS provides professional development that assists educators in finding, accessing, and integrating the vast reservoir of sources from the Library of Congress to deepen understanding and enrich instruction. Through Peggy's leadership, the TPS at MSU Denver program grew from statewide outreach to a regional program that serves 14 western states.

PRINCIPLE INVESTIGATOR:

## Dr. Jody Paul

GRANT:

## • NSF – Partnership for Equity (P4E)

In 2018, Principal Investigator Dr. Jody Paul received a four-year, $115,000 grant for the Partnership for Equity (P4E) project awarded by the National Science Foundation (NSF). The project seeks the participation of MSU Denver Computer Science, in addition to Colorado State University, University of Denver, and West Virginia University, to achieve the following goals: help develop inclusive professional identities among engineering and computer science students so they (a) attain the necessary technical knowledge, skills, and abilities to work in their chosen field, (b) appreciate how diversity strengthens engineering and computer science as disciplines, (c) know how to act inclusively and create inclusive environments within their field; create inclusive learning and working environments where students with a variety of relevant knowledge, skills, and perspectives are welcomed, valued, and affirmed; and promote the development of self-awareness and actions among engineering and computer science faculty and students who enact inclusion.

MSU Denver Computer Science (CS) responsibilities include working with other P4E partners to develop appropriate diversity and inclusion curriculum activities; investigating the effectiveness of adaptation of activities developed for one institution and discipline for use in another; working with MSU Denver CS faculty to implement diversity and inclusion curriculum activities; coordinating MSU Denver CS faculty and the P4E team to collect data on student responses to curriculum activities; participating in frequent online and annual in-person meetings; preparing materials for publication and presentation; and helping disseminate P4E activities and findings.

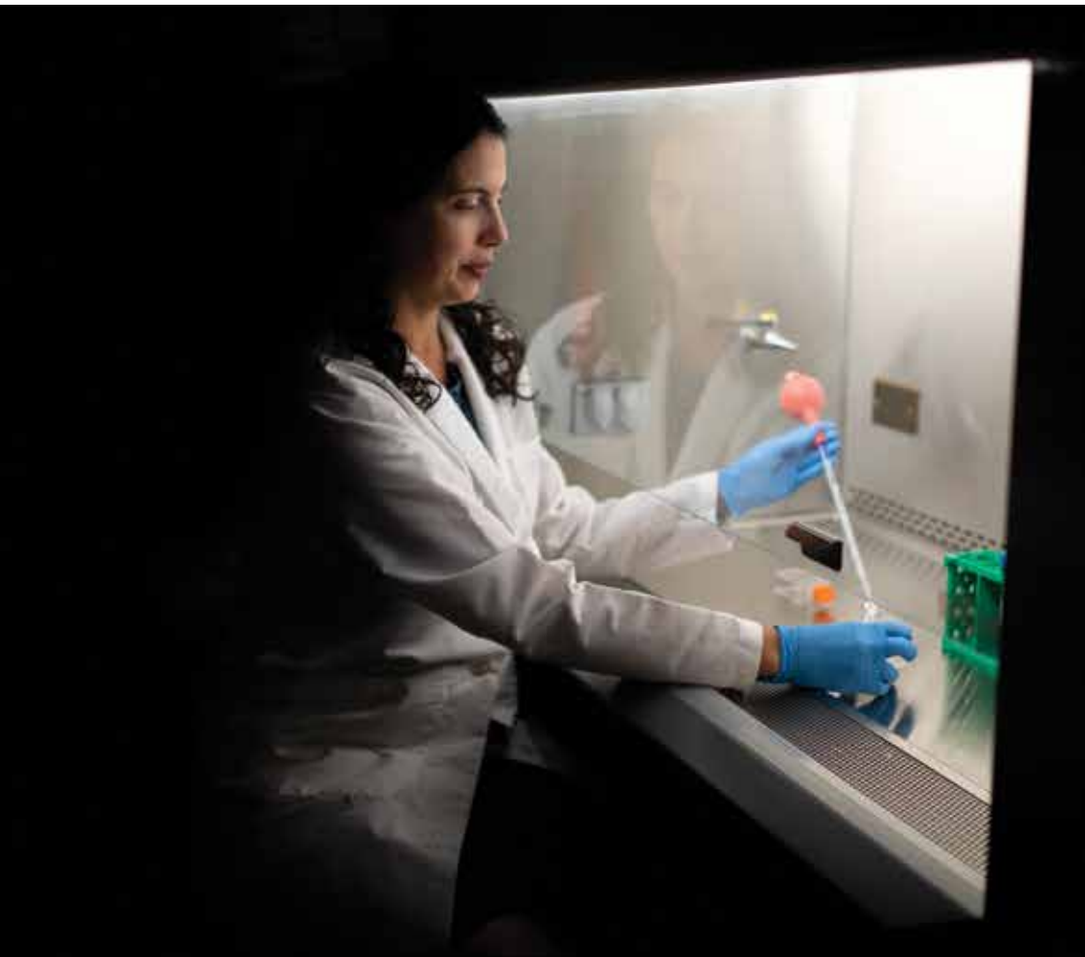
Dr. Jody Paul, Professor of Computer Science, is dedicated to equity, inclusivity, and humanitarian outcomes. Dr Paul's undertakings bridge multiple roles, including educator, performance musician, computer scientist, fitness instructor, locksmith, software development manager and notary public. Primary areas of practice include: cognitive science, human-computer interaction (User eXperience design), software engineering, artificial intelligence, humanitarian free and open source software (HFOSS), curriculum development, and educational assessment.

PRINCIPAL INVESTIGATOR:

## Dr. Emily Ragan

GRANTS:

- **NSF - Iron Uptake in the Fruit Fly**
- **CDHE - Open Roadrunners**



Dr. Emily Ragan, Associate Professor in the Department of Chemistry and Biochemistry, is Principal Investigator on a collaborative proposal to investigate iron uptake in the fruit fly using a $224,000 grant from National Science Foundation (NSF). Iron is essential for survival because it is required for many key processes in cells, including converting food into energy in the presence of oxygen. Understanding this may lead to insights into lesser-known iron uptake pathways in humans, which could ultimately help iron-related diseases.

Dr. Ragan's development of an online General Chemistry I course led to another funding opportunity, this one for the benefit of MSU Denver faculty and the students they teach. Dr. Ragan is the PI on the Open Roadrunners Grant, which is receiving $60,000 through the Colorado Department of Higher Education (CDHE) to address the challenge of rapidly rising textbook costs, which increased 900% between 1980 and 2015. This project runs through May 2020. Dr. Ragan's online chemistry course uses the OpenStax Chemistry textbook, which is an example of an Open Educational Resource (OER). OERs are educational materials that allow free reuse and remixing, which, in the case of General Chemistry, has saved Dr. Ragan's students approximately $70,000 in the nine semesters she has taught the course. The Open Roadrunners Grant will support other faculty in the adoption and adaption of OER.

Dr. Emily Ragan received her BA in Biochemistry and Molecular Biology at the University of California, Berkeley and her PhD in Biochemistry from Kansas State University. She incorporates active learning strategies, including course-based undergraduate research experiences (CUREs), to increase student engagement and expand learning outcomes in her biochemistry courses. Dr. Ragan's Bioinformatics CURE is related to her NSF-supported research, which focuses on elucidating on cellular iron uptake mechanisms in insects.

PRINCIPAL INVESTIGATOR:

## Dr. Jessica Retrum

GRANTS:

- **ISMMS - ALIGN (Assessing & Listening to Individual Goals and Needs) RCT Pilot**
- **CDHCPF - No Wrong Door**

Dr. Jessica Retrum was awarded a $19,225 subaward grant titled "ALIGN (Assessing & Listening to Individual Goals and Needs) RCT Pilot" through the University of Colorado Denver that is funded by The Icahn School of Medicine at Mount Sinai (ISMMS). During July 2017-June 2019, Dr. Retrum's role as PI for MSU Denver on the ALIGN Randomized Control Trial (RCT) Pilot team included tasks associated with each step of the research process. Dr. Retrum, along with support from grant program manager, Aurora Melnyk, attended regular meetings for program updates and planning, participated as interdisciplinary team members in the social work focused components of the intervention, oversaw the qualitative interviews conducted, managed and analyzed data, interpreted and wrote results, and hired Graduate Research Assistants to assist with tasks related to data collection and data analysis.

Dr. Jessica Retrum was also the MSU Denver Principal Investigator on a 19-month, $20,741 subaward grant through the University of Colorado Denver for the Center for Network Science (CNS) School of Public Affairs No Wrong Door (NWD) Evaluation, funded by the Colorado Department of Health Care Policy and Financing (CDHCPF). From September 2016 to September 2019, Dr. Retrum's deliverables and ongoing activities included participating as part of the CNS Evaluation Team; attending regular meetings with the Colorado NWD project team for regular program updates; and planning and training on pilot site expectations outside of evaluation. Dr. Retrum wrote and/or edited all components of The Methodology, The Data Analysis Plan; data collection Instruments; and the pilot site protocols documents.

CNS conducted on-site visits for three to five of the pilot sites and collected information about the implementation of the NWD model that supplements what was collected through the evaluation tools and finalized a site visit protocol for each pilot site. Dr. Retrum participated in pilot site visits during which the CNS team provided technical assistance for any questions or issues related to the online satisfaction survey(s) and follow up with each pilot site. She also wrote and/or edited the pilot site summary report for each on-site visit and consulted on the development of new Social Network Analysis data collection instruments and analysis.

Dr. Retrum has over eight years of clinical/therapeutic intervention experience in health related social work that includes hospice, home care, inpatient care, and developmental disabilities. She has also provided therapy to children and families in residential and in-home settings. Her doctoral research interests were in social work in the field of gerontology with a particular focus on the health and mental health needs of community dwelling older adults with chronic illness and their social supports. She enjoys supporting research that improves services for patients facing serious and life limiting illnesses and their families. Dr. Retrum is an Associate Professor and currently the Chair of the Department of Social Work at MSU Denver.

PRINCIPAL INVESTIGATOR:

## Luis Sandoval

GRANT:

## • CGMD - Institute for Mexicans Abroad (IME) Becas

Principal Investigator Luis Sandoval received a six-month, $10,000 grant from the Consulate General of Mexico in Denver (CGMD) for the Institute for Mexicans Abroad (IME) Becas. IME Becas' mission is to improve access opportunities for Mexicans or persons of Mexican origin living abroad through organizations and educational institutions in the United States that have education programs that can benefit those interested in continuing their studies. The goals of the grant were to support the education of U.S.-based Mexicans to achieve better integration into their host societies, contribute to the enrichment of these societies, and help individuals working and/or studying in the U.S. participate in educational programs that facilitate their development and ensure the continuity of their education.

The grant helped to increase the educational level of Mexicans or persons of Mexican origin living in the United States. Qualifying students had to meet certain criteria for participation. Some were included because they met the threshold of being enrolled in high school, online high school, or technological school. Others were included as a result of being undergraduates or postgraduates at a public university, college, community college, or private university in the U.S. The Mexican government's essential mission in support of the program was to contribute to its citizens' empowerment, integration, and development in their country of residence.

Mr. Sandoval used this grant to help fund four DREAMer (Development, Relief, and Education for Alien Minors Act) students at MSU Denver by extending their two-year Excel Program scholarship for a third year.

Luis Sandoval has been the Associate Director of the Excel Program for almost four years now. In his current role, he oversees a college access program that serves students in Adams County and Aurora Public Schools. His team works closely with students from diverse backgrounds including DREAMer students. He is also part of the DREAMer Taskforce and the outreach contact for TheDream.US scholarship, a national scholarship for DREAMer students looking to pursue a college education.

PRINCIPAL INVESTIGATOR:
**Dr. Sarah Schliemann**

CO-PRINCIPAL INVESTIGATOR:
**Dr. Jason Janke**

GRANT:

## • USDI - Rocky Mountain National Park Soil Characteristics, Carbon Storage, and Tundra Persistence in a Changing Climate

Principal Investigator (PI) Dr. Sarah Schliemann and Co-PI Dr. Jason Janke received a $109,995 grant from the U.S. Department of the Interior (USDI) for the Soil Characteristics, Carbon Storage, and Tundra Persistence in a Changing Climate research project. This long-term project's goal was to identify trends in soil characteristics to inform park officials for future planning as climate change alters the Rocky Mountain National Park.

To truly understand the impact climate change will have on the tundra ecosystem in the Rocky Mountain National Park, long-term monitoring of soil characteristics is critical. Schliemann and Janke proposed that soil chemistry, moisture, and respiration be monitored at five locations within the park and soil temperature be monitored at 30 locations within the park for more than seven years. During this period, trends should become apparent, which could inform park administration about the changes that will occur in the tundra in future years. This project was built on work initiated by the PIs more than eight years ago as part of a project to map permafrost locations along Trail Ridge Road. MSU Denver faculty and students carried out the fieldwork, with project participation exposure to the alpine ecosystem by underrepresented and underserved student populations.

PRINCIPAL INVESTIGATOR:

## Dr. Rachel Sinley

CO-PRINCIPAL INVESTIGATOR:

## Sharon Simpson

GRANT:

## • DHA - Choice Neighborhood Sun Valley

The Denver Housing Authority (DHA) Choice Neighborhood Sun Valley grant, with MSU Denver Principal Investigator Rachel Sinley, is a four-year commitment totaling $150,000. The grant supports three specific components that focus on health, employability, and early childhood development. The MSU Denver Health Institute provides residents of Sun Valley classes in nutrition, stress management, and fitness that incorporate techniques, nutrition challenges on limited budgets, and movement activities thru yoga, aerobics, and stretching. The Institute offers a holistic approach and provides MSU Denver students hands-on learning opportunities to work one-on-one with residents and conduct group workshops.

In the area of workforce development, residents are offered eight workshops covering organization and time management; professionalism and dependability; critical thinking and problem solving; verbal and written communication; job search communication; leadership and teamwork; customer service; conflict resolution; and change management and adaptability. Created by Sharon Simpson (formerly of the MSU Denver CHAMP grant), the modules outlined include a variety of presentations, videos, and lecture notes; targeted activities to help residents demonstrate their understanding of the skills in the course; opportunities for residents to demonstrate what they have learned; and an opportunity to create a resume targeted to a current job opening.

The early childhood component, led by Adriann Wycoff, provides residents an opportunity to participate in a program called Parents as Teachers. This home visit model offers parents an opportunity to practice home instruction for their children and to gain the knowledge and skills necessary to function as their child's first and best teacher. This individualized program builds on the strengths that are apparent in familiar settings and demonstrates that the home is the child's first and most important learning environment.

The nutrition component offers interactive cooking classes and demonstrations paired with one-on-one nutrition counseling. This allows residents to become confident in budget-wise healthful cooking principles while applying general nutrition concepts to prevent common chronic diseases. One-on-one nutrition counseling lets residents address personal nutrition questions with a registered dietitian. Students in the Human Nutrition and Dietetics major also have the opportunity to apply their knowledge of program development, execution, and evaluation through these modules as they assist with implementation of this component.

Rachel Sinley, PhD, MPH, RDN, is an assistant professor in the Nutrition Department at MSU Denver. She also is a registered dietitian nutritionist and provides nutrition counseling to faculty, staff, and students at the Health Center at Auraria on campus. She has previously worked as a nutrition researcher with the Academy of Nutrition and Dietetics, a retail dietitian developing employee and community wellness programs, a dietitian with the Women, Infants and Children program, and as a research assistant developing community health programs among Native American families.

PRINCIPAL INVESTIGATOR:

**Katherine Taft**

GRANT:

## • NEA - Young Artist Studio

Principal Investigator Katie Taft received a two year, $25,000 grant from the National Endowment for the Arts (NEA) for the Young Artist Studio (YAS). The YAS is a teaching apprenticeship program at the Center for Visual Art (CVA) providing MSU Denver Art Education Students with the opportunity to get hands on experience teaching art before entering the workforce. The program leverages university assets to provide free, art-making programs for diverse and underserved communities. The YAS has the capacity for eight art education apprentices annually, and serves the community surrounding the CVA. University students in the apprenticeship apply theory to practice, working in a contemporary art gallery. Apprentices learn from professional artists, experienced educators, and contemporary artwork from all over the world.

The YAS is a keystone community program at the CVA and a learning lab for MSU Denver art education students, acting as a bridge between MSU Denver and young people in the Denver Metro Area. CVA exhibitions feature contemporary artwork by professional and emerging artists in a variety of media who are both local and international. YAS programs aim to deepen and broaden the impact of these exhibitions by creating multiple entry points for diverse audiences. Educators, youth, families, and scholars participate in authentic learning experiences in the YAS, and teaching apprentices take the lead in developing and facilitating community programs.

Katie Taft is the current Education Manager at the CVA and loves helping to connect MSU Denver students to the communities they serve as well as uncovering what kinds of programming the community is interested in. Before coming to MSU Denver, she worked as an artist, a teaching artist with numerous non-profits in the metro area and as a public school teacher for 7 years.

PRINCIPAL INVESTIGATOR:

## Dr. Kate Trujillo, LCSW

GRANT:

- **CDHS - Title IV-E Child Welfare Educational Stipend Program**

Principal Investigator Dr. Kate Trujillo leads MSU Denver's Child Welfare Stipend Program, currently a five year (2016-2021), 1.4 million dollar grant that collaborates with the Colorado Department of Human Services (CDHS) to train Social Work professionals to work in child welfare. MSU Denver, in collaboration with state and county partners, awards stipends to social work students who are committed to serving Colorado children and families through a career in child welfare at one of Colorado's 64 county departments of social services. The program provides training, financial assistance, mentoring, and field experiences to selected recipients through a highly competitive selection process. MSU Denver BSW and MSW students study and pursue degrees in traditional classrooms and online, making it accessible to students in rural communities and with other life commitments. The program offers additional incentives to students who are committed to serving rural Colorado communities. The program continues to grow, with a goal of helping the state reach 150 stipend scholars annually.

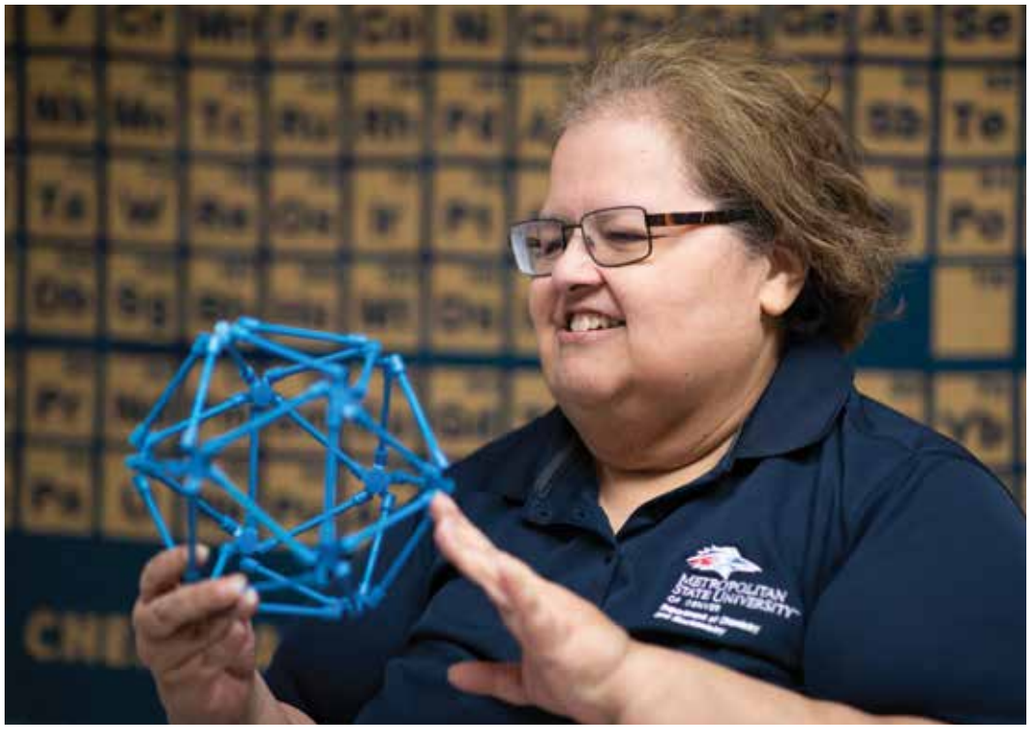
Dr. Trujillo's career focuses on supporting traumatized children and families. Through innovative research, teaching, creative programs, and strong community collaborations, she supports Social Workers who can facilitate healing, find hope, and build healthy relationships. Dr. Trujillo's research is focused on children from vulnerable populations who have been displaced, disrupted, abused or who have otherwise experienced trauma. Her research interest in child welfare stems from twenty years of practice experience working with children, youth, and adults who have experienced abuse and neglect.

PRINCIPAL INVESTIGATOR:

**Dr. Rosemarie DePoy Walker**

CO-PRINCIPAL INVESTIGATOR:

**Dr. Andrew Bonham**




GRANT:

## • NSF - Denver Metro Chem Scholars

Principal Investigator (PI) Dr. Rosemarie DePoy Walker and Co-PI Dr. Andrew Bonham received a $620,309 grant from the National Science Foundation (NSF) for the Denver Metro Chem Scholars (DCMS) project. The project provided financial assistance, effective student support, and academic experiences necessary to create the conditions for success including degree completion, preparation for graduate school, and careers in science. The program served students with financial need pursuing bachelor's degrees in chemistry and biochemistry at MSU Denver. The DMCS project provided scholarships of roughly $10,000 each to students in four cohorts of six students. The cohorts formed a learning community from the time of selection through their graduation, and selected scholars also received travel and research funds.

In all, twenty-four DMCS were served over the grant period. The PI secured the cooperation of relevant offices to ensure that services were tailored for DMCS within existing program structures. DMCS focused on science literacy; ethical and safe conduct of research and involvement in scientific communities, such as in scholarly journals, conferences, and professional associations; and essential elements for being successful in graduate school and careers.

Dr. Walker has a PhD in Inorganic Chemistry from the University of Utah. Her graduate career focused on working with air sensitive compounds (smaller boranes and their base adducts), employing multi-nuclear NMR to identify and characterize compounds. Dr. Walker is known for her successful proposal writing and management of programs funded by grants from the National Institutes of Health and the National Science Foundation. She is focused on pedagogical research and promoting diversity in STEM and mentoring both students and faculty.

PRINCIPAL INVESTIGATOR:

## Dr. Adriann Wycoff

GRANT:

- **CDE - Adult Education and Family Literacy Act Grant (AEFLA)**

Principal Investigator Adriann Wycoff received a $168,660 Colorado Department of Education (CDE) grant for work with the Adams County School District #14 Adult Learning Center (ALC). This grant is part of ALC's development of an intentional consortium with partner school districts and organizations, such as MSU Denver's Family Literacy Program (FLP), to offer services and educational opportunities that will assist even greater numbers of marginalized adults across Adams County.

In partnership with the ALC, the Family Literacy Program provides ESL, computer training, service learning curriculum that is deeply rooted in a family literacy framework, early childhood education (or Early Family Literacy), as well as professional development for instructors.

The MSU Denver Family Literacy Program (FLP) began in 1994. The mission of FLP is "to meet the literacy needs of metropolitan Denver's lower-income families." The program works to break the cycle of poverty and low literacy by providing intergenerational, unified family literacy services for those most vulnerable. FLP partners with many agencies including Adams County School Districts 12 and 14 (as is the case with the AEFLA grant), the Denver Housing Authority (DHA), and the National Center for Families Learning (NCFL) to provide services that: 1) assist children in reaching their full potential as learners; 2) educate and engage parents in becoming full partners in the education of their children; and 3) help parents improve their literacy or basic educational skills to attain a post-secondary education and/or employment.

In its various iterations, the Adult Education and Family Literacy Act has funded the Family Literacy Program since 1999.

Adriann Wycoff is Director and Co-founder of FLP, and oversees all aspects of implementation of the Family Literacy Program. She is a Professor of Chicana/o Studies and Associate Professor of Women's Studies (courtesy appointment) as well as Co-Principal Investigator of the College Assistance Migrant Program. She has over 30 years of experience in community-based, non-traditional education, including teaching, administration, curriculum development, grant writing, and community outreach.

## Office of Sponsored Research and Programs

The Office of Sponsored Research and Programs (OSRP), which resides within the Office of the Provost and Academic Affairs, supports external funding pursuits by providing quality services to faculty and staff. OSRP looks to promote awareness of the intellectual life of the MSU Denver community while encouraging internal and external collaboration, supporting efforts to secure and administer sponsored funding, and ensuring compliance with sponsored funding and research regulations, policies and procedures. Our focus is on securing public awards from federal, state, and local agencies and assisting university investigators in identifying funding opportunities, conceptualizing and preparing grant proposals, securing institutional approval for proposals and submitting proposals for funding. The office also works to ensure compliance and oversight in coordination with the Institutional Review Board.

The Office of Sponsored Research and Programs is located at:
Jordan Student Success Building,
890 Auraria Parkway, Suite 350
Denver, CO 80204

**www.msudenver.edu/osrp**

**82.75%**
Federal Agencies

- United States Dept. of Health and Human Services **76.61%**
- National Science Foundation **6.14%**

Total Award Amount of New Grants and Contracts FY 2018-2019

**$4,548,279**

Total New Grants and Contracts Awarded FY 2018–19

**10**

**17.25%**
Colorado State and Local Government Agencies

- Colorado Dept. of Education **7.11%**
- Denver Office of Children's Affairs **5.17%**
- Denver Housing Authority **3.30%**
- Colorado Dept. of Higher Education **1.32%**
- Office of Respondent Parent Counsel (ORPC) **0.35%**

**10.58%**
National Science Foundation

**14.09%**
Library of Congress

**18.51%**
U.S. Department of Health & Human Services

**43.54%**
U.S. Department of Education

- Colorado Dept. of Education **5.96%**
- Colorado Dept. of Human Services **1.70%**
- Colorado Dept. of Health Care Policy and Financing **0.74%**
- Denver Office of Children's Affairs **0.68%**
- Denver Mayor's Office **0.61%**
- Denver Housing Authority **0.44%**
- Colorado Dept. of Higher Ed **0.17%**
- Office of Respondent Parent Council **0.05%**
- Consulate General of Mexico in Denver **0.03%**

**10.38%**
Colorado State and Local Government Agencies

- U.S. Dept. of Commerce **2.06%**
- U.S. Dept. of Labor **0.53%**
- National Fish and Wildlife Foundation **0.09%**
- National Endowment for the Arts **0.07%**
- U.S. Dept of the Interior **0.05%**
- U.S. Environmental Protection Agency **0.04%**

**2.85%**
Other Federal Agencies

- The Icahn School of Medicine at Mount Sinai **0.06%**

**0.06%**
Other Funders

Total Award Amount of Active Grants and Contracts

**$34,369,604**

Total Active Grants and Contracts FY 2018–19

**37**

**That's possible here.**

METROPOLITAN STATE UNIVERSITY℠ OF DENVER

Office of Sponsored Research and Programs
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