



THE RESEARCHER

RCMI @ MORGAN STATE UNIVERSITY



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Supporting the development and enhances the competitiveness of diverse investigators in basic biomedical, check out the Investigator Development Core's upcoming workshop series and more.

Inside the Community Engagement Core



Morgan CARES (Community-Aligned REsearch Solutions) is the Community Engagement Core of the Center for Urban Health Disparities Research & Innovation at Morgan State University. Morgan CARES opened the doors of its Community Center in 2020, and since then it has been used by various groups and community members in the Network for meetings, training sessions, presentations, and more. There have been over 200 sessions held in the facility, and we have been able to collaborate with community partners such as Fusion Partnerships to host their second annual Film Festival: “Hear Us Now?” where local filmmakers and artists were able to use different mediums to showcase the effect of COVID-19 on health disparities in Baltimore City in a temporary art gallery. In partnership with other tenants and over 20 community-based organizations, we have also hosted resource fairs at the Hoen & Co. Lithography Building through a collaboration with the Center for Neighborhood Innovation where Morgan CARES is housed. Additionally, as an official distribution site of rapid at-home COVID-19 tests for the Baltimore City Health Department, Morgan CARES has provided the residents and other organizations with over 2,000 test kits.

Morgan CARES also offers a Community Award, a small seed funding initiative intended to support community-campus collaborations. To date, 21 health based projects and initiatives have been funded by the award program. It is the hope that these partnerships form a strong foundation that supports the emergence of responsive, community-led public health initiatives that promote health equity in communities across Baltimore City. Recipients are also now able to apply for additional funding of up to \$5,000 to further the work of their project.

Georgetown University, and others - CEAL was able to reach over 2500 individuals to provide materials and education about vaccine acceptance and uptake. Additionally, The CEASE Smoking Cessation Program registered over 250 individuals and enrolled 170 across 19 class cohorts. Over 27 organizations have either served as host sites or assisted with recruitment efforts. Through collaboration with these partners, they intend to engage more communities and broaden their outreach in 2023.

We are also making many strides in our supported partner programming. The DMV/MSU CEAL (Community Engagement Alliance) project was renewed for a second year. The overarching goal is to support research on awareness, education, misinformation, and mistrust around SARS-CoV-2 and new variant infections. In collaboration with community partners such as Paul’s Place, The Family Tree, Union Baptist Church & The Hillen Road Improvement Association and partnering institutions including Johns Hopkins,

Most excitingly, the American Heart Association has announced an additional \$4 million grant to add a sixth scientific research center bringing its total funding to its Strategically-Focused Research Network (SFRN) on the Science of Diversity in Clinical Trials to \$24 million. As a result, Morgan State University and Morgan CARES will be participating in a new project, in partnership with Johns Hopkins University and the University of Maryland to engage diverse and underrepresented groups in cardiovascular clinical research activities.

This project will test various recruitment methods to see which is more effective in supporting enrollment. There will also be an on-line database, The Cardiovascular Research Learning Community, to include community-focused events and outreach in order to regain the trust of these underserved communities.

Morgan CARES is looking forward to expanding the Community Award program and fostering meaningful relationships between academic and community partners within our organizational network. These types of collaborations are the foundation of the Research Centers in Minority Institutions at Morgan State University and essential as we work to reduce health disparities in Baltimore City.



At the Heart of RCMI The Administrative Core

The Administrative Core (AC) is an integral component of the RCMI Center for Urban Health Disparities Research and Innovation at Morgan State University (RCMI@Morgan) mission to enhance the infrastructure and capacity needed for MSU to conduct important health disparities research of urban significance including infectious disease, cancers, diabetes, addiction, and social determinants of health.

The Administrative Core is responsible for managing the RCMI@Morgan Center for Urban Health Disparities Research & Innovation (CUHDMI) in its daily operations and offering the administrative and logistical support, fiscal and budgetary management to effectively achieve research goals, including the timely and effective communication between Cores and Research Projects and MSU's Office of Research Administration, and NIH-NIMHD program officials. The AC also provides information on career enhancement opportunities for junior faculty and postdoctoral fellows, program evaluation, project reports, and also facilitates collaborations with partner research institutions through the Research Infrastructure and Investigator Development Cores, and engages with government agencies and community organizations through the Community Engagement Core.



MEET DR. ODERO-MARAH

Dr. Odero-Marah is currently the Executive Director of the Center for Health Disparities Research and Innovation, and a Professor of Biology here at Morgan State University. As PI of the Research Centers for Minority Institutions (RCMI) at Morgan State, Dr. Odero-Marah is entrusted to build the **\$14.2M** research portfolio and contribute to mentoring junior faculty. She obtained my PhD under the mentorship of Dr Mary Hendrix at the University of Iowa, focusing on breast cancer, and my postdoctoral training in prostate cancer under the mentorship of Dr Leland Chung at Emory University.

Let's talk RESEARCH



Graduate students working on research projects at MCB (pictured above)

The Research Infrastructure Core (RIC) supports research at Morgan State University through three Core Facilities as follows: the Animal Research Facility (ARF), the Biostatistics and Bioinformatics Support Unit (BBSU), and the Molecular and Cellular Biology Core Facility (MCB). The ARF is a state-of-the-art facility located in the College of Liberal Arts (CLA). It is approved to support research by the Office of Laboratory Animal Welfare (OLAW) and it has received membership in the Vivarium Operational Excellence Network. The ARF provides cutting edge support in behavioral and biomedical research support. Researchers learn both foundation animal research protocols and more advanced techniques including surgical techniques through the facility. The BBSU is leading the Center's push into the application of data science in scientific discovery. Through popular workshops in biostatistics and bioinformatics, many Morgan researchers have gained expertise in statistical packages including SPSS, STATA and R. The BBSU has also trained researchers in data visualization, data exploration and bioinformatics using tools such as Python. The MCB is equipped with a diversity of technologies for cutting-edge biomedical research that include

flow cytometry and cell sorting, next-generation sequencing and real-time PCR, light and electron microscopy, and liquid chromatography-mass spectrometry. The facilities are essential to the leading-edge research being undertaken at Morgan State University.

The users of the facilities are pioneering new research in their respective areas of expertise and thereby growing the research portfolio at Morgan State University. Dr. Margaret Dania, a postdoctoral fellow, and Professor Bahram Faraji of the Nutritional Sciences Program recently published a paper in the International Journal of Environmental Research and Public Health on the potential role of food microbiomes in enhancing nutritional content of fermented grains (Int J Environ Res Public Health . 2022 Dec 10;19(24):16621 doi: 10.3390/ijerph192416621). The research opens new avenues for investigating the mechanisms through which probiotics improve health and the relationship between food and gut microbiomes. Dr. Yun-Chi Chen of the biology department uses the flow cytometry technologies to identify subsets macrophages, which are key immune cells in responses to infections.



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In a paper presented at the Society for Leukocyte Biology, Romin Adhikari who is a PhD student in the lab reported on the lack of correlation between macrophage subtypes and plasma cytokine profiles in human volunteers. Two other graduate students Myla Worthington and Sumiko Williams are studying HIV co-morbidities in Dr. Frank Denaro's laboratory. The work seeks to understand the pathologies seen in [HIV patients who are treated with antiretrovirals](#). Other projects span from [biosensors](#) and [biomaterials](#). The RIC welcomes consultation with faculty and collaborators at all stages of project development and performance.

Inside the IDC

The Investigator Development Core

The overarching goal of this Investigator Development Core (IDC) is to engage a diverse group of scientists in biomedical research with focus on health disparities, and to support early-stage investigators, such as junior faculty and postdoctoral trainees, to become successful, externally funded researchers. The IDC brings together social/behavioral scientists, community health faculty, and basic research STEM faculty at all career levels to forge discussion, and therewith, collaborative fundable research ventures.

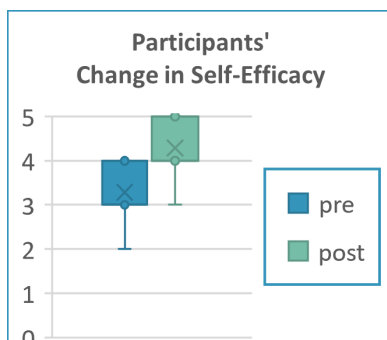
To achieve its goals, IDC implements a variety of activities that are widely recognized as the best practices in research infrastructure enhancement and early-stage investigators' career development and range from one-on-one mentoring, scientific and grant writing workshops, and research funding programs.

THE GRANT WRITING SERIES

Our IDC Grant Writing Workshop Series has been developed and refined over the past few years, and they are offered in two parts. Both workshops are facilitated jointly by Drs. Hohmann and Mehravaran. Participants receive individual feedback to help revise their weekly assignments and attend regular meetings for peer review and discussion. Other RCMI team members and mentors are invited to work with workshop participants on their individual proposals as needed. Statistical and data science support is provided through the Research Capacity Core.

PART 1: GETTING STARTED ON YOUR FIRST RESEARCH PROPOSAL The first part is offered as a 2-month, intensive, hands-on workshop for novice grant writers over the summer. This workshop focusses on composing a concise and testable research question, supporting this research question with an in-depth review of the relevant literature, constructing a rigorous

study design that appropriately tests the research question, negotiating federal grant information, and identifying funding programs of interest.



-UPCOMING WORKSHOP IN SUMMER 2023-
June 5 to July 14, 2023

[View the flyer and read more about the workshop.](#)

[Registration is now open!](#)

PART 2: NIH PILOT GRANTS PROPOSAL PREPARATION The second part is designed to guide faculty through the process of developing an actual, NIH style proposal for submission in January, either as an internal RCMI pilot or external SuRE First or general R21 application. By the end of the workshop, the participants are expected to demonstrate a fundamental understanding of the NIH grant process, successfully argue the significance and innovation of the proposed work, formulate concise study aims that support the overall research question or goal of the study, compose a research plan that adheres to the NIH principles of rigor and reproducibility, clearly articulate potential pitfalls of the proposal and how they can be addressed, and competently apply key formatting strategies to generate an effective application package.

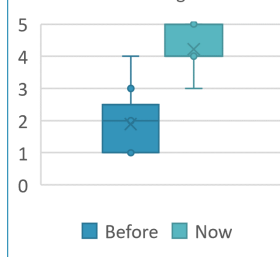


Dr. Christine Hohmann

IDC Director
PhD, Professor of Biology

Dr. Hohmann has over 30 years of successfully funded biomedical research at Johns Hopkins University and Morgan State University in the areas of developmental neuroscience and minority research training programs. Dr. Hohmann has research interests in the effects of stress and inflammation on the development of mental health disorders. Her extensive NIH and NSF grant-review experience also enables her to guide grant writing workshops and aid faculty in the identification of appropriate funding. Dr. Hohmann has mentored over 60 undergraduate and graduate students in her laboratory, many of whom are now in faculty or industry leadership positions. She also has served as mentor to several junior faculty over the past decade.

Fall Participants' Self-Efficacy in Writing an NIH-style Specific Aims Page



-UPCOMING WORKSHOP IN FALL 2023-
September through December 2023

[View the flyer and read more about the workshop.](#)

[Registration is now open!](#)

SCIENTIFIC WRITING ACCOUNTABILITY GROUP (SWAG)

A SWAG is designed to increase productivity via weekly structured meetings and assigning regular blocks of writing time. Weekly SWAG meeting times provide the structure, discipline, account-



Dr. Shiva Mehravaran

**IDC Co-Director
MD, MIH, MSc, Associate
Professor of Biology-**

Dr. Mehravaran has more than 20 years of research experience in the areas of clinical and epidemiological ophthalmology and public eye care in underserved populations. During her career, she has provided research mentorship to individuals at various academic and career stages including undergraduate and graduate students as well as medical students and specialists at different institutions.

ability, and support necessary to help individuals increase their writing productivity and self-efficacy. SWAG members have the opportunity to peer review each-others' writing, exchange tips, build community and start collaborations.

This program is facilitated by Dr. Bethrice Elliot. She held our first SWAG workshop in the Summer of 2022, that enrolled 19 participants in two sections. She also provided writing tips and individual coaching to participants. The work completed and submitted by SWAG participants included 2 new manuscripts, 2 revised manuscripts, and 1 grant proposal. Results of pre- post- surveys also indicated very high satisfaction rates and gains in scientific writing self-efficacy.

-UPCOMING WORKSHOP IN SPRING 2023-
March 6 to May 12, 2023

IDC FUNDING OPPORTUNITIES

Our core has two main funding mechanisms for research. Both programs are facilitated by Ms. Mollie Lange, Ms. Netta Pinchback, and Ms. Subhadra Paudel.

THE PILOT PROJECT PROGRAM

The goal of the Pilot Project Program is designed to jump start research projects including community-based participatory research and potential technology transfer projects that will result in externally funded research grants. Applications in the NIH R21 format are solicited annually in January, internally reviewed for completeness and compliance with NIH rules and regulations, and then sent out for external scientific review in February. Applications are then ranked by scientific merit score, relevance to health disparities research, and the investigators' potential for advancement. Top-ranking proposals are sent to NIMHD for a funding decision. Each year, up to five pilot research projects with a maximum budget of \$50,000 each and a project period of up to two years are provided to eligible researchers so they can conduct basic biomedical as well as interdisciplinary projects on health-related topics relevant to the mission of the NIH.

Since 2020, funding has been provided to a total of 12 pilot projects in basic and

behavioral science areas. Currently, 7 of the 14 pre-applications received in December 2022 are undergoing full review and will be considered for funding. The application portal for next year will open in December 2023.

THE SUMMER RESEARCH PARTNERSHIP PROGRAM

This program allows faculty to acquire new research skills, build their network and engage in collaborations with faculty at neighboring R1 institutions and National Laboratories. Faculty apply to spend eight to ten weeks over the summer in the laboratory of a research partner institution as a visiting researcher. Awardees receive a summer stipend commensurate with teaching a summer session on campus as well as a budget for supplies. Partners will benefit as well by bringing new ideas to the table and possibly a new perspective about health disparities.

Since 2020, 10 faculty have been funded and successfully completed the program. The application portal for Summer 2023 will open soon.



The mission of the Center for Urban Health Disparities Research and Innovation at Morgan State University (RCMI@Morgan) is to use a transdisciplinary team of both basic biomedical and public health/behavioral science researchers to conduct research to understand health issues disproportionately affecting minority groups, particularly those living in urban settings of Baltimore.

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