Hail to the cube

MICHIGAN’S LEGACY OF UNCOMMON INNOVATION
Dear Friends,

Welcome to the 2017 MCubed Symposium! We are thrilled that you can join in this celebration of interdisciplinary research and scholarship at the University of Michigan—all the more memorable as the university marks its bicentennial anniversary. Michigan has a rich legacy of intellectual risk-taking and innovation, one that continues today through the campus-wide, real-time seed funding program called MCubed.

Since its inception in 2012, MCubed has lifted barriers in the traditional research and scholarship process. Through a unique online system, MCubed enables faculty members to vote with their feet for the most promising interdisciplinary project concepts and secure funding almost instantaneously. As a result, they can keep pace with today’s dynamic research environment, pursue groundbreaking approaches that might not attract conventional funding, and mentor the next generation of researchers and scholars in interdisciplinary collaboration. And as the word cloud on the opposite page demonstrates, they can form interdisciplinary teams around societal and global challenges too complex for a single field of study.

To date, MCubed has stimulated the formation of over 480 cubes, or faculty trios from at least two different campus units. Even before our second cycle closes, faculty members report that their cubes’ work has led to the achievement of nearly $100M in follow-on funding and hundreds of publications, as well as numerous artistic products, invention reports, and company launches. Most importantly, we’ve been able to expand the reach of MCubed’s work, bringing UM-Dearborn into our current cycle. We’re delighted to announce that, when MCubed 3.0 opens in the fall of 2018, we will include UM-Flint as well. Meanwhile, we’re exploring a broader MCubed program that will build collaborations with other universities across the state and nation.

With gratitude, MCubed recognizes the invaluable contributions of many key partners and stakeholders. We are thankful for the leadership of the MCubed Executive Committee members; commitments and counsel from University of Michigan schools, colleges, and participating units; the institutional support and home from the Vice President for Research and the University of Michigan Office of Research; and the generous investment from the Provost as part of the Third Century Initiative, developed by the offices of the provost and president. We’re especially grateful for the donors and corporations that have presented research challenges and sponsored faculty teams through the MCubed Diamond Program.

Enjoy the dazzling array of cubes represented in the talks, demonstrations, and posters today! And get your next great idea ready for MCubed 3.0!

Sincerely,

Mark A. Burns
Executive Director of MCubed and Research Innovation
University of Michigan Office of Research
T. C. Chang Professor of Engineering
Welcome to the 2017 MCubed Symposium, where we are highlighting some of the extraordinary creativity that has been unleashed by U-M’s unique and innovative seed funding program for research.

At the UM Office of Research (UMOR), one of our primary functions is to foster interdisciplinary research. MCubed has proven to be a remarkably effective and versatile approach to supporting that role.

From the beginning, the faculty’s enthusiasm to form three-person interdisciplinary teams has enabled us to identify and encourage promising new avenues of research across the entire campus. More recently, we have seen how MCubed can spur the creation of larger cross-disciplinary initiatives. For example, the Center for RNA Biomedicine—a new multi-disciplinary effort to study the growing number of roles that RNA appears to play in human life and disease—began as a block of 7 cubes, each spanning at least two disciplines.

We are also extending the MCubed experience to undergraduate students. Last summer we launched the MCubed Scholars Summer Internship Program in partnership with the Undergraduate Research Opportunities Program (UROP). About 50 students participated in the pilot, working on an array of faculty-led MCubed projects and receiving a stipend for their efforts.

A key reason for the success of MCubed is that it leverages the core strengths of the U-M community of scholars and researchers. Not only do we have an exceptional breadth and excellence of research here but we also have a strong culture of cooperation across disciplines. MCubed amplifies these characteristics and accelerates the path to creative collaborations.

I hope you are inspired not only by the impressive breadth of the projects at today’s event, but also by the potential of the MCubed program for the future.

Jack Hu
Vice President for Research
J. Reid and Polly Anderson Professor of Manufacturing, College of Engineering

Francis S. Collins
Director, National Institutes of Health

Francis S. Collins, M.D., Ph.D., was appointed the 16th Director of the National Institutes of Health (NIH) by President Barack Obama and confirmed by the Senate. He was sworn in on August 17, 2009.

On June 6, 2017, President Donald Trump announced his selection of Dr. Collins to continue to serve as the NIH Director. In this role, Dr. Collins oversees the work of the largest supporter of biomedical research in the world, spanning the spectrum from basic to clinical research.

Dr. Collins is a physician-geneticist noted for his landmark discoveries of disease genes and his leadership of the international Human Genome Project, which culminated in April 2003 with the completion of a finished sequence of the human DNA instruction book. He served as director of the National Human Genome Research Institute at NIH from 1993-2009.

Before coming to NIH, Dr. Collins was a Howard Hughes Medical Institute investigator at the University of Michigan. He is an elected member of the National Academy of Medicine and the National Academy of Sciences, was awarded the Presidential Medal of Freedom in November 2007, and received the National Medal of Science in 2009.
Hail to the Cube: Michigan’s Legacy of Uncommon Innovation

November 1, 2017 | Rackham Auditorium & Michigan League

1:00 pm Welcome and Overview (Rackham Auditorium)
Valerie Johnson, MCubed Managing Director

Remarks and Keynote Introduction (Rackham Auditorium)
Mark Schlissel, President, University of Michigan

Keynote Address (Rackham Auditorium)
Francis Collins, Director, National Institutes of Health

1:50 pm Break (Rackham Lobby)

2:00 pm The MCubed Difference – Part 1 (Rackham Auditorium)
Short, powerful talks in the spirit of TED, interspersed with MCubed Minute videos

- MCubed Minute: A Case from the MCubed Diamond Program: Reducing Packaging Flow to Landfills in Developing Countries
- Seeing the Human Eye in Four-Dimensions: Pistons, Portobello, and Patients
- Digitizing Orson Welles’ Heart of Darkness
- MCubed Minute: LEAN Thinking for Dementia Care
- Windows into Pregnancy: Shedding Light on Placental Health
- From Mechanical to Digital: Monetization of Mobility in the Data Economy
- MCubed Minute: The Hunt for Elusive Cancer Biomarkers
- MyVoice: Texting With America’s Youth to Improve Health
- Nanobiotics

3:30 pm Break (Rackham Lobby)

3:45 pm The MCubed Difference – Part 2 (Rackham Auditorium)
Short, powerful talks in the spirit of TED, interspersed with MCubed Minute videos

- MCubed Minute: MCubed for Students Programs
- What Robots Can Teach Us About Snakes: Communicating with Color and Motion
- MCubed Minute: askMUSIC: A Learning Prostate Cancer Prediction Tool
- High-Stakes Decisions in the Pediatric ICU: A Better Way?
- MCubed Minute: Detroit Neighborhood Entrepreneurs Project
- New Age Titanium Foams for More Successful Dental Implants
- Falls and Vision Impairment Among Middle-Aged Women
- Data-Driven Tools to Curb the Spread of Healthcare-Associated Infections
- MCubed Minute: Humility in the Age of Self-Promotion

5:00 pm Poster Session and Hors D’oeuvres Reception (Michigan League Ballroom, Hussey Room, Michigan Room and Vandenberg Room)
Glimpse the innovations of more than 200 cubes in a high-energy collaborative setting. Present your name badge to receive your MCubed light-up ice cubes!

In the Ballroom:
- Arts, Culture, History, Language
- Brain Function, Human Behavior, and Mental Health
- Cancer
- Cells, Molecules, Biosciences
- Education and Academic Innovation
- Environmental Science and Sustainability
- The Human Body

In the Hussey Room:
- 3D Technology
- Business, Policy, and Decision-making
- Diversity, Equity, and Inclusion
- Medical Technology and Treatments

In the Michigan Room:
- Data, Informatics, Networks, Social Media
- Pharma and Drug Delivery
- Transportation and Mobility
- Women’s and Children’s Health

In the Vandenberg Room:
- Disease
- Genetics, DNA, RNA
- Mathematical and Physical Sciences
- MCubed Diamond Program

7:00 pm Event Closes

Please note: Faculty titles and names of academic departments and schools/colleges/units have been abbreviated for the purposes of this program.

University of Michigan campuses are denoted as:
- University of Michigan–Ann Arbor: UM-AA
- University of Michigan–Dearborn: UM-D
- University of Michigan–Flint: UM-F
The MCubed Difference—Part 1

2:00 pm, Rackham Auditorium

A Case from the MCubed Diamond Program:
Reducing Packaging Flow to Landfills in Developing Countries
See full cube information in MCubed Diamond Poster Section.
With special thanks to Procter & Gamble.

Seeing the Human Eye In Four-Dimensions:
Pistons, Portobellos, and Patients
See poster in the Hussey Room

Volker Sick, Associate Vice President for Research, University of Michigan Office of Research, Professor, Mechanical Engineering, College of Engineering, UM-AA
Maria Woodward, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
David Burke, Professor, Human Genetics, Medical School, UM-AA
Hakan Demirci, Associate Professor, Ophthalmology and Visual Sciences, Medical School, UM-AA
V. Sreetha E. Jegannathan, Research Fellow, Ophthalmology and Visual Sciences, Medical School, UM-AA
Elaine Lok, Orthoplastic Photographer, Ophthalmology and Visual Sciences, Medical School, UM-AA
Hao Chen, Mechanical Engineering, College of Engineering, UM-AA, Postdoctoral Fellow
Hannah Apostolou, Ophthalmology & Visual Science, Medical School, UM-AA, Undergraduate Student

Digitizing Orson Welles’ Heart of Darkness
Matthew Solomon, Associate Professor, Screen Arts & Cultures, LSA: Humanities, UM-AA
Hubert Cohen, Professor, Screen Arts & Culture, LSA: Humanities, UM-AA
Kathleen Dow, Archivist and Curator, Special Collections, Libraries, UM-AA
Vincent Longo, Screen Arts & Cultures, LSA: Humanities, UM-AA, Graduate Student
Eliljah Seagraves, Computer Science, College of Engineering, UM-AA, Undergraduate Student
Sydney Simoncini, Screen Arts & Cultures, LSA: Humanities, UM-AA, Undergraduate Student
Jordan Stanton, Business Administration, Ross School of Business, UM-AA, Undergraduate Student
Erin Ringel, Stamps School of Art & Design, UM-AA, Undergraduate Student
Zahrara Ballout, Graphic Design, Stamps School of Art & Design, UM-AA, Undergraduate Student
Tyrice Grice, Undeclared, LSA, UM-AA, Undergraduate Student

LEAN thinking for Dementia care
Heleen Kales, Professor, Psychiatry, Medical School, UM-AA
Scott Roberts, Associate Professor, Health Behavior and Health Education, School of Public Health, UM-AA
Ruth Dunkle, Associate Dean, Professor, School of Social Work, UM-AA
Cathleen Connell, Interim Dean and Professor, Human Behavior and Health Education, School of Public Health, UM-AA
Leslie Dubin, Lecturer, Social Work, UM-AA
Ken Lange, Research Professor, Internal Medicine, Medical School, Health Management and Policy, Institute for Social Research, UM-AA
Donovan Maust, Assistant Professor, Psychiatry, Medical School, UM-AA
Beth Spencer, Social Worker, Lecturer, School of Social Work, UM-AA
Amanda Leggett, Psychiatry, Medical School, UM-AA, Postdoctoral Fellow
Lauren Gerlach, Psychiatry, Medical School, UM-AA, Postdoctoral Fellow

Windows into Pregnancy: Shedding Light on Placental Health
Rita Loch-Caruso, Professor, Environmental Health Sciences, School of Public Health, UM-AA
Kelly Rakowski, Research Assistant Professor, Epidemiology, School of Public Health, UM-AA
John Meeker, Senior Associate Dean, Professor, Environmental Health Sciences, School of Public Health, UM-AA
Sunitha Nagrath, Associate Professor, Chemical Engineering, College of Engineering, UM-AA
Justin Colacino, Assistant Professor, Environmental Health Sciences, School of Public Health, UM-AA
Vasantha Padmanabhan, Professor, Pediatrics & Communicable Diseases, Medical School, UM-AA
Dana Delinsky, Associate Professor, Nutritional Sciences, Environmental Health Sciences, School of Public Health, UM-AA
Kyle Campbell, Epidemiology, School of Public Health, UM-AA, Graduate Student
Sean M. Harris, School of Public Health, UM-AA, Postdoctoral Fellow
Anthony So, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student

From Mechanical to Digital: Monetization of Mobility in the Data Economy
Robert Hampshire, Research Assistant Professor, Transportation Research Institute, University of Michigan Office of Research, UM-AA
Siquan Shen, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-AA
Peter Adrians, Professor, Civil & Environmental Engineering, College of Engineering, Entrepreneurship, Ross School of Business, UM-AA
Ryan Moy, Ross School of Business, UM-AA, Graduate Student
Troy Fabares, Research Institute, University of Michigan Office of Research, UM-AA, Postdoctoral Fellow

The Hunt for Elusive Cancer Biomarkers
Nils Walter, Professor, Chemistry, LSA: Natural Sciences, UM-AA
Muneesh Tewari, Professor, Internal Medicine–Hematology and Oncology, Medical School, UM-AA
Arul Chinnaiyan, Professor, Pathology, Medical School, UM-AA
Shuichii Takayama, Professor, Biomedical Engineering, College of Engineering, UM-AA
Alexander Johnson-Buck, Internal Medicine & Chemistry, Medical School, UM-AA, Postdoctoral Fellow
Paul Lund, Chemistry, LSA: Natural Sciences, UM-AA, Postdoctoral Fellow

MyVoice: Texting With America’s Youth to Improve Health
Tammy Chang, Assistant Professor, Family Medicine, Medical School, UM-AA
Michelle Moniz, Assistant Professor, Obstetrics & Gynecology, Medical School, UM-AA
Kendrin Sonnevile, Assistant Professor, Nutritional Sciences, School of Public Health, UM-AA
Vinod Vidyasagar, Assistant Professor, Learning Health Sciences, Medical School, UM-AA
Sunghye Lee, Associate Research Scientist, Institute for Social Research, UM-AA
Lauren Nichols, Program Manager, Family Medicine, Medical School, UM-AA
Christina Czubajewski, Communications & Informatics Project Manager, Family Medicine, Medical School, UM-AA
Andre Fisher, LSA: Social Sciences, UM-AA, Undergraduate Student
Ali Schulte, High School Student
Zoe Vanoutrakos, LSA: Social Sciences, UM-AA, Undergraduate Student
Xinyan Zhao, School of Information, UM-AA, Graduate Student
Amicie Bryant, Medical School, UM-AA, Graduate Student
Christine Schmitt, Georgetown University, Undergraduate Student
Noah Zucker, Medical School, UM-AA, Graduate Student
Tara Soler, Medical School, UM-AA, Graduate Student
Melissa Dejenezich, Family Medicine, Medical School, UM-AA, Postdoctoral Fellow
Kirasser Koenen, School of Nursing, UM-AA, Undergraduate Student

Nanobiotics
Angela Woll, Professor, Mechanical Engineering, College of Engineering, UM-AA
Nicholas Kotov, Professor, Chemical Engineering, UM-AA
J Scott Vandegrift, Clinical Lecturer, Emergency Medicine, Medical School, UM-AA
Paolo Elvati, Assistant Research Scientist, Mechanical Engineering, College of Engineering, UM-AA
Yichun Wang, Chemical Engineering, College of Engineering, UM-AA, Postdoctoral Fellow

*MCubed Scholar
MUCubed for Students Programs
With special thanks to the Office of the Vice President for Research, Henrë H. Rackham School of Medicine, and the Undergraduate Research Opportunities Program.

What Robots Can Teach Us About Snakes: Communicating with Color and Motion
See poster in The Ballroom

Sajjad Seyedsalehi
Shreyas Ramani
Bo Qu
Gregory Auffenberg
Audrey Sedal
Dan Bruder
Talia Moore
Joanna Larson
Jacqueline Kristofik
Sridhar Kota
Daniel Rabosky
Alison Davis Rabosky

Horace H. Rackham School of Graduate Studies, and the Mathematics, Michigan State University, Graduate Student
UM-AA, Graduate Student
UM-AA, Graduate Student
LSA: Natural Sciences, UM-AA, Graduate Student
LSA: Natural Sciences, UM-AA, Undergraduate Student
LSA: Natural Sciences, UM-AA, Graduate Student
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LSA: Natural Sciences, UM-AA, Undergraduate Student
LSA: Natural Sciences, UM-AA, Graduate Student
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LSA: Natural Sciences, UM-AA, Undergraduate Student

Cubes in the spotlight

New Age Titanium Foams for More Successful Dental Implants
Mihaiu Banu, Research Associate Professor, Mechanical Engineering, College of Engineering, UM-AA, Undergraduate Student
Zheng Zhang, Industrial & Operations Engineering, College of Engineering, UM-AA, Postdoctoral Fellow

High-Stakes Decisions in the Pediatric ICU: A Better Way?
J. Frank Yates, Professor, Psychology, LSA; Social Sciences, UM-AA
Sandra Graham-Bermann, Professor, Psychology, Women’s Studies, LSA; Social Sciences, UM-AA
Cynthia Arslanian-Engoren, Associate Dean, Associate Professor, Health Behavior and Biological Sciences, School of Nursing, UM-AA
Patricia DeDino, Professor, Psychology, LSA; Social Sciences, UM-AA
Kenneth Picht, Professor, Pediatrics, Medical School, UM-AA
Stephanie Kukora, Lecturer, Pediatrics, Medical School, UM-AA
Haoyang Yan, Psychology, LSA; Social Sciences, UM-AA, Graduate Student
Rohini Majumdar, Cognitive Science and Economics, LSA; Social Sciences, UM-AA, Undergraduate Student

Falls and Vision Impairment Among Middle-Aged Women
Carrie Anne Karvonen-Gutierrez, Assistant Professor, Epidemiology, School of Public Health, UM-AA
Sibhan D. Harlow, Professor, Epidemiology, School of Public Health, UM-AA
Saysko Morse, Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Paula Newman-Casey, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Sarah Weber, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Maria Wuhrder, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Alicia Alvarez, Clinical Professor & Clinic Director, Community & Economic Development Clinic, Law School, UM-AA
Christine Baer, Associate Director, Center on Finance Law and Policy, Law School, UM-AA
Christina Aquila, Ross School of Business, UM-AA, Graduate Student
Kimberly Bezzo, Law School, UM-AA, Graduate Student
Emilio Furmaga, Stamps School of Art & Design, UM-AA, Graduate Student
Kehli Fratzni, Stamps School of Art & Design, UM-AA,
Undergraduate Student
Magnus Wei Zhang Guo, Law School, UM-AA, Graduate Student
Rehal Jain, Ross School of Business, UM-AA, Graduate Student
Ben Su, Ross School of Business, UM-AA, Graduate Student
Barbara Moore, Law School, UM-AA, Graduate Student
Mayan Bar, Ross School of Business, UM-AA, Graduate Student
Olivia Moore, Stamps School of Art & Design, UM-AA, Undergraduate Student

Data-Driven Tools to Curb the Spread of Healthcare-Associated Infections
Vincent B. Young, Professor, Internal Medicine–Infectious Diseases, Medical School, UM-AA
Jenna Wiens, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Evon S. Snitkin, Assistant Professor, Microbiology and Immunology, Internal Medicine, Medical School, UM-AA
Patrick Schluss, Professor, Microbiology & Immunology, Medical School, UM-AA
Krishna Rao, Assistant Professor, Internal Medicine/Infectious Diseases, Medical School, UM-AA
Jinho Oh, Computer Science & Engineering, College of Engineering, UM-AA, Graduate Student
Jiaxuan Wang, Computer Science & Engineering, College of Engineering, UM-AA, Graduate Student
Matthew Reyes, Computer Science & Engineering, College of Engineering, UM-AA, Postdoctoral Fellow
Avanti Sambarey, Microbiology & Immunology, Medical School, UM-AA, Postdoctoral Fellow
Katie Saund, Microbiology & Immunology, Medical School, UM-AA, Graduate Student
Hannah Steinberg, Hospital and Molecular Epidemiology, School of Public Health, UM-AA, Graduate Student
Michael Dieteler, Microbiology & Immunology, Medical School, UM-AA, Graduate Student
Matthew Schneizler, Microbiology & Immunology, Medical School, UM-AA, Graduate Student
Anna Senkut, Internal Medicine/Infectious Diseases, Medical School, UM-AA, Postdoctoral Fellow
Josie Libertucci, Internal Medicine/Infectious Diseases, Medical School, UM-AA, Postdoctoral Fellow

Humility in the Age of Self-Promotion
Rebekah Modrak, Associate Professor, Stamps School of Art & Design, UM-AA
Aarón Aleuvi, Professor, Marketing, College of Business, UM-D, Stamps School of Art & Design, UM-AA
Jamie Vander Brook, Librarian, Art & Design, Libraries, UM-AA
Sarah Bass, Professor, Philosophy, LSA; Humanities, UM-AA
Margaret Johnson, History, LSA; Social Sciences, UM-AA, Undergraduate Student
Sarah Posner, Stamps School of Art & Design, UM-AA, Undergraduate Student
Carolin Gennari, Museum Studies, Stamps School of Art & Design, UM-AA, Graduate Student

askMUSIC: A Learning Prostate Cancer Risk Prediction Tool
Gregory Auffenberg, Clinical Lecturer, Urology, Medical School, UM-AA
Karandeep Singh, Assistant Professor, Learning Health Sciences, Nephrology, Medical School, UM-AA
Brian Denton, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-AA
Selin Merdan, Industrial & Operations Engineering, College of Engineering, UM-AA, Graduate Student
Elisse Usen, Health Informatics, School of Information, UM-AA, Graduate Student
Bo Xu, Computer Science, College of Engineering, UM-AA, Undergraduate Student
Shreyas Ramani, Health Informatics, School of Information, UM-AA, Graduate Student
Sajjad Seyedsalehi, Mechanical Engineering and Industrial Mathematics, Michigan State University, Graduate Student

Anny Lu, Industrial & Operations Engineering, College of Engineering, UM-AA, Undergraduate Student
Zheng Zhang, Industrial & Operations Engineering, College of Engineering, UM-AA, Postdoctoral Fellow

Aged Women
Roderick Hopkins*
Navasuja Kumar
Charlotte Carlson
Ebony White
Jesse Gilbert
Sayoko Moroi
Carrie Anne Karvonen-Gutierrez, Assistant Professor, Epidemiology, School of Public Health, UM-AA
Sibhan D. Harlow, Professor, Epidemiology, School of Public Health, UM-AA
Saysko Morse, Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Paula Newman-Casey, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Sarah Weber, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Maria Wuhrder, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Alicia Alvarez, Clinical Professor & Clinic Director, Community & Economic Development Clinic, Law School, UM-AA
Christine Baer, Associate Director, Center on Finance Law and Policy, Law School, UM-AA
Christina Aquila, Ross School of Business, UM-AA, Graduate Student
Kimberly Bezzo, Law School, UM-AA, Graduate Student
Emilio Furmaga, Stamps School of Art & Design, UM-AA, Graduate Student
Kehli Fratzni, Stamps School of Art & Design, UM-AA,
Undergraduate Student
Magnus Wei Zhang Guo, Law School, UM-AA, Graduate Student
Rehal Jain, Ross School of Business, UM-AA, Graduate Student
Ben Su, Ross School of Business, UM-AA, Graduate Student
Barbara Moore, Law School, UM-AA, Graduate Student
Mayan Bar, Ross School of Business, UM-AA, Graduate Student
Olivia Moore, Stamps School of Art & Design, UM-AA, Undergraduate Student

New Age Titanium Foams for More Successful Dental Implants
Mihaiu Banu, Research Associate Professor, Mechanical Engineering, College of Engineering, UM-AA
Laurie K. McCauley, Dean, Professor, Periodontics and Oral Medicine, College of Dentistry, UM-AA
Gustavo Mendonca, Clinical Associate Professor, Biologic and Material Sciences, School of Dentistry, UM-AA
Hassung Chuang, Research Associate Professor, Mechanical Engineering, College of Engineering, UM-AA
Jaekwang Shin, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Jessica Alonso Ferreira, Biologic & Materials Sciences, School of Dentistry, UM-AA, Postdoctoral Fellow
Rafael Anorin Cavalcanti, Biologic & Materials Sciences, School of Dentistry, UM-AA, Postdoctoral Fellow
Elisa Sartori, Biologic & Materials Sciences, School of Dentistry, UM-AA, Postdoctoral Fellow

Falls and Vision Impairment Among Middle-Aged Women
Carrie Anne Karvonen-Gutierrez, Assistant Professor, Epidemiology, School of Public Health, UM-AA
Sibhan D. Harlow, Professor, Epidemiology, School of Public Health, UM-AA
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Kehli Fratzni, Stamps School of Art & Design, UM-AA,
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Olivia Moore, Stamps School of Art & Design, UM-AA, Undergraduate Student

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Aarón Aleuvi, Professor, Marketing, College of Business, UM-D, Stamps School of Art & Design, UM-AA
Jamie Vander Brook, Librarian, Art & Design, Libraries, UM-AA
Sarah Bass, Professor, Philosophy, LSA; Humanities, UM-AA
Margaret Johnson, History, LSA; Social Sciences, UM-AA, Undergraduate Student
Sarah Posner, Stamps School of Art & Design, UM-AA, Undergraduate Student
Carolin Gennari, Museum Studies, Stamps School of Art & Design, UM-AA, Graduate Student

*MCubed Scholar

3:45 pm, Rackham Auditorium

The MCUbEd Difference—Part 2

Cubes in the spotlight
Heritage and Community at the Pyramids of El Kuru, Sudan

Geoff Emberling, Associate Research Scientist, Kaloula Museum of Archaeology, LSA: Humanities, UM-AA

Raymond Silverman, Professor, History of Art, LSA: Humanities, UM-AA

Franz Nonnen-Cruyssen, Professor, Stamps School of Art & Design, UM-AA

Suzanne Davis, Curator, Kelowna Museum of Archaeology, LSA: Humanities, UM-AA

Bryce Higgins-Stoyer, Stamps School of Art & Design, UM-AA, Graduate Student

Emily Schumyer, Stamps School of Art & Design, UM-AA, Graduate Student

Hyécob’s Journey

Donald S. Lopez, Jr., Professor, Asian Languages & Cultures, LSA: Humanities, UM-AA

Kiko Yokota-Carter, Librarian, Library Research-Asia, Libraries, UM-AA

Kevin Carr, Associate Professor, History of Art, LSA: Humanities, UM-AA

Sug Ha Jin, Professor, Computer Science, College of Engineering, UM-AA

Rebecca Bloom, Asian Languages and Cultures, LSA: Humanities, UM-AA, Graduate Student

Ray Niu, Chinese Language and Cultures, LSA: Humanities, UM-AA, Graduate Student

Wai Cal, School of Information, UM-AA, Graduate Student

Sindu Giri, Stamps School of Art & Design, UM-AA, Undergraduate Student

Rebecca Henry, School of Information, UM-AA, Undergraduate Student

Anders Beugk, College of Engineering, UM-AA, Undergraduate Student

Bailey Case, College of Engineering, UM-AA, Undergraduate Student

Elijah Sattler, College of Engineering, UM-AA, Undergraduate Student

Eric Uy, College of Engineering, UM-AA, Undergraduate Student

MAPPING MIDWEST MEDIA

Philip Hallman, Librarian, Screen Arts & Culture, Libraries, UM-AA

Daniel Herbert, Associate Professor, Screen Arts & Culture, LSA: Humanities, UM-AA

Johannes von Moltke, Professor and Department Chair, Germanic Languages and Literatures, LSA: Humanities, UM-AA

Rond Rosenbacher*, UM-AA, Undergraduate Student

Mapping Modern Jewish Diasporic Cultures

Shachar Posner, Associate Professor, Jewish Studies, LSA: Humanities, UM-AA

Deborah Dash Moore, Professor, History, Judaic Studies, LSA: Humanities, UM-AA

Alix Kenner, Librarian, Digital Scholarship, Libraries, UM-AA

Justine Jeyoung Visualization Librarian, Clark Library, Libraries, UM-AA

Matthew C. Caruthers, Maahasa Projects Librarian, LSA Libraries, UM-AA

Peter Knapp, App Programmer/Analyst Senior, LSA-IT

Jason Coleman, Director, Michigan Publishing Services, MPH Librarians, Libraries, UM-AA

Dong Fox, English, LSA: Humanities, UM-AA, Graduate Student

Ze’i Wilkinson-Saidlate, Information, School of Information, UM-AA, Graduate Student

Eric Platts, Libraries, UM-AA, Graduate Student

MATE SELECTION STRATEGIES AND THE STRUCTURE OF ROMANTIC RELATIONSHIP MARKETS

Elizabeth Brucc, Associate Professor, Sociology, LSA: Social Sciences, UM-AA

Mark Newman, Professor, Physics, LSA: Natural Sciences, UM-AA

Fred McManus, Professor, Marketing, Ross School of Business, UM-AA

George Centelle, Physics, LSA: Natural Sciences, UM-AA, Graduate Student

NEXT GENERATION OUTDOOR INTERACTIVE MEDIA SYSTEMS

Roland Graf, Associate Professor, Stamps School of Art & Design, UM-AA

Jason Core, Associate Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

Edwin Olson, Associate Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

ORAL HISTORY NARRATIVES OF PLACE, SENSORY MEMORY, AND TRAVEL

Cameron Michael Amin, Professor, Social Sciences, College of Arts, Sciences, & Letters, UM-D

Elif Isikb-Bljign, Associate Professor, Marketing, College of Business, UM-D

Natalie Howell, Associate Professor, History, College of Arts, Sciences, & Letters, UM-D

Anna Muller, Assistant Professor of History, Social Sciences, College of Arts, Sciences, & Letters, UM-D

Muhammad Ali Mujarradi, Social Sciences, College of Arts, Sciences, & Letters, UM-D, Undergraduate Student

Tina Nelson, Language Culture and Communications, Journalism and Science Studies, College of Arts, Sciences, & Letters, UM-D, Undergraduate Student

Mohamed Al-Jalibry, College of Engineering & Computer Science, UM-D, Undergraduate Student

Carlin Robert Michael Amin, Jazz and Contemporary Improvisation, School of Music, Theatre, & Dance, UM-D, Undergraduate Student

Evert Reid, Jazz and Contemporary Improvisation, School of Music, Theatre, & Dance, UM-D, Undergraduate Student

Jaeger Richter, Theatre & Drama, School of Music, Theatre, & Dance, UM-D, Undergraduate Student

Johnson Miller, Theatre & Drama, School of Music, Theatre, & Dance, UM-D, Undergraduate Student

PAUSING, PROCESSING, AND SYNTACTIC COMPLEXITY IN LANGUAGE ACQUISITION

Lorenzo Garcia-Armaya, Assistant Professor, Romance Languages and Literatures, LSA: Humanities, UM-AA

Julie Boland, Professor, Psychology, LSA: Social Sciences, UM-AA

Andres Cordera, Associate Professor, Linguistics, LSA: Humanities, UM-AA

Rosamaria Tognazzini*, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student

Rebecca Kenda*, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student

Myrna Cinteon-Valentin, Psychology, LSA: Social Sciences, UM-AA, Graduate Student

Michael Ward, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student

Ian Cook, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student

THE PAST, PRESENT, AND FUTURE OF UNIVERSITY MUSEUMS AND COLLECTIONS

Keratin Barnett, Associate Professor, Germanic Languages and Literatures, LSA: Humanities, UM-AA

Carla Simonetti, Professor, Anthropology, LSA: Social Sciences, UM-AA

Francis X. Blain Jr., Professor, History, LSA: Humanities, UM-AA

Amanda Krigliaski, Curator, Institute for the Humanities, LSA: Humanities, UM-AA

Kathryn Zallier, History, LSA: Humanities, UM-AA, Undergraduate Student

Emma Kinyere, History, LSA: Humanities, UM-AA, Undergraduate Student

Olivea Howard, Architecture, Taubman College of Architecture & Urban Planning, UM-AA, Undergraduate Student

Craig Harvey, Interdepartmental Program in Classical Art and Archaeology, LSA: Humanities, UM-AA, Graduate Student

THE RIVER IN OUR CITY, THE RIVER IN OUR VEINS

Christina Myers, Associate Professor, Theatre and Drama, School of Music, Theatre, & Dance, UM-AA

Sherr Smith, Professor, Stamps School of Art & Design, UM-AA

Robert Groce, Professor, Ecosystem Management, School for Environment and Sustainability, UM-AA

Sarah Tanner, Associate Professor of Music, University Productions, School of Music, Theatre, & Dance, UM-AA

Michael Gorvich, Associate Professor, Chair of Performing Arts Technology, School of Music, Theatre, & Dance, UM-AA

Evan Chambers, Professor, Composition, School of Music, Theatre, & Dance, UM-AA

Sarah McNamara, College of Arts, Sciences, & Letters, UM-D, Undergraduate Student

Jillian Li, LSA: Humanities, UM-AA, Undergraduate Student

Sarah McMam, Stamps School of Art & Design, UM-AA, Graduate Student

Richard Treutler, Stamps School of Art & Design, UM-AA, Undergraduate Student

Jonathan Miller, Theatre & Drama, School of Music, Theatre, & Dance, UM-D, Undergraduate Student
Using corpus data to understand the architecture of West African early human history using linguistics and genetics
Nicholas C. Heinleins, Assistant Professor, Romance Languages and Literatures, LSA: Humanities, UM-AA
Nick Ellis, Professor, Psychology, LSA: Social Sciences, UM-AA
Cristina Moreiras-Morín, Professor, Romance Languages and Literatures, LSA: Humanities, UM-AA
Lorenzo García-Amaya, Assistant Professor, Romance Language and Literatures, LSA: Humanities, UM-AA
Libby Gano, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student
Ella Wilhelm, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student
Alex Feroni, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student
Ariana Barca, Linguistics, LSA: Humanities, UM-AA, Graduate Student
Clare Rosa, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student
Pedro Aguiller-Muñoz, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student
Audrey Niemczick, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student
Nishwa Vaidheesh, Romance Languages and Literatures, LSA: Humanities, UM-AA, Undergraduate Student

Using isolate geochemistry to chart the evolution of long-distance social networks in southern Africa
Brian Stewart, Assistant Professor, Anthropology, LSA: Social Sciences, UM-AA
Joel Blum, Professor, Earth and Environmental Sciences, Ecology and Evolutionary Biology, Chemistry, LSA: Natural Sciences, UM-AA
John Kingston, Associate Professor, Anthropology, LSA: Social Sciences, UM-AA
James Glasson, Associate Research Scientist, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA
Yu-chao Zhao, Anthropology, LSA: Social Sciences, UM-AA, Graduate Student
Kyle Meyer, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Graduate Student
Kaya Pazar, Anthropology, LSA: Social Sciences, UM-AA, Graduate Student

West African early human history using linguistics and genetics
Jeffrey G. Hauth, Professor, Linguistics, LSA: Humanities, UM-AA
Sarah Thompson, Professor, Linguistics, LSA: Humanities, UM-AA
Beverly Strassmann, Professor, Anthropology, LSA: Social Sciences, UM-AA
Melisa Baptista, Professor, Linguistics, LSA: Humanities, UM-AA
Erika Vlasak, Linguistics, LSA: Humanities, UM-AA, Undergraduate Student
Anshul Puli, Linguistics, LSA: Humanities, UM-AA, Undergraduate Student
Moïsa Saltzman, Linguistics, LSA: Humanities, UM-AA, Undergraduate Student

Brain Function, Human Behavior, Mental Health

Biological Markers of Schizophrenia
Patricia Delichi, Professor, Psychology, LSA: Social Sciences, UM-AA
Ivy Tsai, Assistant Professor, Psychophysiology, Medical School, UM-AA
Ivos Dimos, Professor, Health Behavior and Biological Sciences, School of Nursing, Computational Medicine and Bioinformatics, Medical School, UM-AA
Katherine Michos*, Psychology, LSA: Social Sciences, UM-AA, Undergraduate Student

Convergence of Seepahoria, Hedgehog and GDNF signaling cascades in development and regeneration
Brian A. Pierschala, Associate Professor, Biology and Materials Sciences, School of Dentistry, UM-AA
Benjamin Allen, Associate Professor, Cell and Developmental Biology, Medical School, UM-AA
Reman Giger, Professor, Cell and Developmental Biology, Medical School, Neurology, UM-AA
Jennifer Shadaf, Biologic and Materials Sciences, School of Dentistry, UM-AA, Graduate Student
Justine Pleinke, Cell and Developmental Biology, Medical School, UM-AA, Graduate Student
Xiaoxing Zhao, Cell and Developmental Biology, Medical School, UM-AA, Postdoctoral Fellow

Examinmg stress and coping in prolonged isolation
Nestor Lopez-Duran, Associate Professor, Psychology, LSA: Social Sciences, UM-AA
James Allenby, Professor, Psychophysiology, Medical School, UM-AA
Robine Stacey Edelstein, Associate Professor, Psychology, LSA: Social Sciences, UM-AA

Family Dyslex Study
Rena Carter, Associate Professor, Psychology, LSA: Social Sciences, UM-AA
Deborah Rivera-Drake, Associate Professor, Psychology, LSA: Social Sciences, Educational Studies, School of Education, UM-AA
Cheopkara Howard-Caballero, Professor and Department Chair, Health Behavior and Health Education Department, School of Public Health, UM-AA
Rebecca Washington, School of Social Work, UM-AA, Graduate Student
Eliai Sanders, College of Pharmacy, UM-AA, Graduate Student
Annette Joyce, School of Social Work, UM-AA, Graduate Student
Margaret McBride, Professor, Psychology, LSA: Social Sciences, UM-AA, Graduate Student
Jennifer Davis, Psychology, LSA: Social Sciences, UM-AA, Graduate Student
Anicia Hawelka, Psychology, LSA: Social Sciences, UM-AA, Graduate Student
Chungree Kwon, Psychology, LSA: Social Sciences, UM-AA, Graduate Student
Le Neal Blvd, Psychology, LSA: Social Sciences, UM-AA, Undergraduate Student
Rachel Gibson, Psychology, LSA: Social Sciences, UM-AA, Undergraduate Student
Nichelle Muller, Psychology, LSA: Natural Sciences, UM-AA, Undergraduate Student

Functional implications of state-dependent regulation of glial cells.
Sara Atos, Assistant Professor, Micrósicos, Cellular and Developmental Biology, LSA: Natural Sciences, UM-AA
Geoffrey Murphy, Research Professor, Micrósicos & Behavioral Neuroscience Institute, Medical School, UM-AA
Gabriel Carles, Professor, Ophthalmology, Medical School, UM-AA
Shannon Moore, Micrósicos, Cellular and Developmental Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student
Yuma Kodeth, Micrósicos, Cellular and Developmental Biology, LSA: Natural Sciences, UM-AA, Graduate Student

Individual differences in the incentive salience of signals to reward in human children
Brian M. Hicks, Assistant Professor, Psychiatry, Medical School, UM-AA
Tony Sprout, Professor, Psychology, LSA: Social Sciences, UM-AA
Jonathan Morrow, Assistant Professor, Psychiatry, Medical School, UM-AA
C. Emily Durkin, Associate Professor, Psychology, UM-AA

Infrared powering of neural implants
Cindy Chestek, Assistant Professor, Biomedical Engineering, College of Engineering, UM-AA
Hun Sook Kim, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

Integration of Comprehensive Clinical and Computational Data (ICID)
Mohsin Moinzadeh, Professor, Psychiatry, Medical School, UM-AA
Emily Mooren Pravest, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Xuefeng (Chris) Lie, Associate Professor, Systems Leadership and Innovation, School of Nursing, UM-AA
Sohil Kharruti, Electrical and Computer Engineering, College of Engineering, UM-AA, Postdoctoral Fellow

Interruption of axonal transport
Bogdan Eregen, Professor, Mechanical Engineering, College of Engineering, UM-AA
Olivier Knigep, Research Associate Professor, Radiology, Medical School, UM-AA
Michael Sutton, Associate Professor, Micrósicos and Behavioral Neuroscience Institute, Medical School, UM-AA
Victoria Booth, Professor, Mathematics, LSA: Natural Sciences, UM-AA
Ehsan Mirzakhahali, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Kajie Chan, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Eloni Gournou, Internal Medicine, Medical School, UM-AA, Postdoctoral Fellow

Light Innovations in the Workplace to Promote Physical and Mental Health
Ana Byalle, Associate Professor, Nutritional Sciences, Epidemiology, School of Public Health, UM-AA
Brooks Green, Research Professor, Integrative Biology and Physiology, College of Letters and Sciences, UCLA
J. Todd Arnett, Associate Professor, Psychiatry, Medical School, UM-AA
David Katelson, Psychiatry, Medical School, UM-AA, Postdoctoral Fellow
Karle Craddock, LSA: Natural Sciences, UM-AA, Undergraduate Student
Cathy Trink, LSA: Natural Sciences, UM-AA, Undergraduate Student
Candice Miller*, LSA: Natural Sciences, UM-AA, Undergraduate Student
Katie Plioplys*, LSA: Natural Sciences, UM-AA, Undergraduate Student

Microfluidic analysis of human neuronal function
Michael D. Uhler, Professor, Molecular and Behavioral Neuroscience Institute, Medical School, UM-AA
Nikos Chronis, Assistant Professor, Mechanical Engineering, College of Engineering, Biomedical Engineering, UM-AA
Jack Parent, Professor, Neurology, Medical School, UM-AA
Anita Ray Chowdhury, Biomedical Engineering, College of Engineering, UM-AA, Postdoctoral Fellow
Xinz De, Neurology, Medical School, UM-AA, Graduate Student
Shweta Gupta, Micrósicos and Behavioral Neuroscience Institute, Medical School, UM-AA, Postdoctoral Fellow

Natural Language Processing for Enhanced Motivational Interviewing Interventions
Rudz Mihalcea, Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Lawrence An, Associate Professor, Internal Medicine, Medical School, UM-AA
Kenneth Rassouli, Professor, Health Behavior and Health Education, School of Public Health, UM-AA
Satinder Singh, Professor, Computer Science and Engineering, College of Engineering, UM-AA
Kathy Goggin, Professor, University of Missouri
Delhany Cotley, Professor, Computer Science and Engineering, College of Engineering, UM-AA
Veronica Percus-Ross, Computer Science and Engineering, College of Engineering, UM-AA, Postdoctoral Fellow
Yichen Wang, Computer Science and Engineering, College of Engineering, UM-AA, Undergraduate Student
Xueting Sun*, Computer Science and Engineering, College of Engineering, UM-AA, Undergraduate Student

*Michael Scholar
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MCubed Symposium 2017

Neural signatures of self-regulation and eating behavior in children
Julie Lamong, Professor, Pediatrics and Communicable Diseases, Medical School, UM-AA
Lake Hyde, Assistant Professor, Psychology, LSA: Social Sciences, UM-AA
Ashley Gearhardt, Assistant Professor, Psychology, LSA: Social Sciences, UM-AA
Allison Miller, Associate Professor, Health Behavior and Health Education, School of Public Health, UM-AA
Ruby Gadia, Biopsychology, Cognition, and Neuroscience, LSA: Natural Sciences, UM-AA, Undergraduate Student
Rebecca Walter, Psychology, LSA: Social Sciences, Preboreal Fellow
Melissa Perkins, Psychology, LSA: Social Sciences, Preboreal Fellow
Rachel Roberts, Clinical Psychology, LSA: Social Sciences, Graduate Student

Proving GABAergic function in the visual cortex with transcranial magnetic stimulation
Stephan F. Taylor, Professor, Psychiatry, Medical School, UM-AA
Sooan Mokhan, Assistant Professor, Movement Science, School of Kinesiology, UM-AA
Thad Polk, Professor, Psychology, LSA: Social Sciences, UM-AA
Dalia Khamash, Neuroscience, School of Kinesiology, UM-AA, Undergraduate Student
Molly Simonetti, Psychology, LSA: Social Sciences, UM-AA, Preboreal Fellow

Rapayn and neuronal survival
Mohammed Akhavan, Professor, Molecular, Cellular, and Developmental Biology, LSA: Natural Sciences, UM-AA
Sam J. Barmada, Assistant Professor, Neurology, Medical School, UM-AA
Ariane Bro, Assistant Professor, Pharmacy, Medical School, UM-AA
Eva Feldman, Professor, Neurology, Medical School, UM-AA
Kaitlin Wosnak, Neurology, Medical School, UM-AA, Graduate Student

Social anxiety, health, and culture
Shinchee Kitayama, Professor, Psychology, LSA: Social Sciences, UM-AA
Carolyne Yoos, Associate Professor, Marketing, Ross School of Business, UM-AA
Srijan Sen, Associate Professor, Molecular and Behavioral Neuroscience Institute, Medical School, UM-AA

Strategies for Front-End Design
Shanne Daly, Assistant Professor, Mechanical Engineering, College of Engineering, UM-AA
Colleen Saffert, Professor, Psychology, LSA: Social Sciences, UM-AA
Allison Hwang-Saar, Assistant Professor, Biomedical Engineering, College of Engineering, UM-AA
Jim Woe Lee, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Jacob Litt, Biomedical Engineering, College of Engineering, UM-AA, Undergraduate Student
Shayneen Harris, College of Engineering, UM-AA, Undergraduate Student
Vikashe Vadakumcherry, Mechanical Engineering, College of Engineering, UM-AA, Undergraduate Student
Hernandez L., Mechanical Engineering, College of Engineering, UM-AA, Undergraduate Student

Tactile interfaces and environments for children with autism
Sooan Ahnhoost, Assistant Professor, Architecture, Taubman College of Architecture & Urban Planning, UM-AA
Constanta Coletti, Research Assistant Professor, Psychiatry, Medical School, UM-AA
Dale Ulrich, Professor, Movement Science, School of Kinesiology, UM-AA
Leah Ketcheson, School of Kinesiology, UM-AA, Preboreal Fellow
Oleg Pugachev, Taubman College of Architecture & Urban Planning, UM-AA, Graduate Student
Erica Goodman, School of Kinesiology, UM-AA, Undergraduate Student

Transcranial Direct Current Stimulation to Remediate Distraction in ADHD
John Jeniese, Professor, Psychology, LSA: Social Sciences, UM-AA
Chandra Sripada, Assistant Professor, Psychiatry, Medical School, UM-AA
Eva Feldman, Professor, Psychology, LSA: Social Sciences, UM-AA
Benjamin Kat, Assistant Professor, Human Development, Virginia Tech
Tessa Akagi, Psychology, LSA: Social Sciences, UM-AA, Graduate Student
Zacary Shiltz*†, Psychology, LSA: Social Sciences, UM-AA, Graduate Student
Maximiliano Alvarez*, Psychology, LSA: Social Sciences, UM-AA, Undergraduate Student

Using a simulated infant to predict children’s jealousy after the birth of a sibling
Brenda L. Velling, Research Professor, Center for Human Growth & Development, University of Michigan Office of Research, Professor, Psychology, LSA: Social Sciences, UM-AA
James Swayne, Assistant Professor, Psychiatry, Medical School, UM-AA
Richard Tolman, Professor, School of Social Work, UM-AA
Emma Bayers-Carlow, Psychology, LSA: Social Sciences, UM-AA, Graduate Student

Cancer-associated thrombosis: Finding the link mechanisms
Jose Antonio Diaz, Research Assistant Professor, Vascular Surgery, Medical School, UM-AA
Luis Hernandez-Garcia, Associate Research Professor, Functional Magnetic Resonance Imaging, University of Michigan Office of Research, UM-AA
Mark L. Day, Professor, Urology, Medical School, UM-AA
Joao Groe, Assistant Professor, Biomedical Sciences, UM-AA, Graduate Student
Gwendolyn Loretz, Biomedical Sciences, UM-AA, Graduate Student
Brian Diefenbach*, School of Kinesiology, UM-AA, Undergraduate Student

Characterizing the role of LGR5+ stem cells in colon cancer progression
Justin Coticchio, Assistant Professor, Environmental Health Sciences, School of Public Health, UM-AA
Jason Spence, Associate Professor, Internal Medicine—Gastroenterology, Medical School, UM-AA
James Varani, Professor, Pathology, Medical School, UM-AA
Yaritck Shah, Associate Professor, Molecular and Integrative Physiology, Medical School, UM-AA
Evan Hill, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Erina Kaz, LSA: Natural Sciences, UM-AA, Undergraduate Student
Gina Novosn, LSA: Natural Sciences, UM-AA, Undergraduate Student

Developing web-based prognostic calculators in head and neck cancer
Andrew Greg Shaw, Assistant Professor, Otolaryngology—Head and Neck Surgery, Medical School, UM-AA
Jeremy Michael George Taylor, Professor, Biostatistics, School of Public Health, UM-AA
Gregory Wolf, Professor Emeritus, Otolaryngology—Head and Neck Surgery, Medical School, UM-AA
Victoria Prince, Medical School, UM-AA, Graduate Student
Conner Huban, Medical School, UM-AA, Graduate Student
Vijay Soni, Biostatistics, School of Public Health, UM-AA, Undergraduate Student

Assessing correlation between toxicity and efficacy outcomes in oncology
Matthew Jason Schipper, Research Associate Professor, Radiation Oncology, Medical School, UM-AA
Phoebe Goon, Research Assistant Professor, Biostatistics, School of Public Health, UM-AA
Martha Matsuzaka, Assistant Professor, Radiation Oncology, Medical School, UM-AA
Shruti Jolly, Clinical Associate Professor, Radiation Oncology, Medical School, UM-AA
Will Jackson, Resident, Radiation Oncology, Medical School, UM-AA
Kritika Suresh, Biostatistics, School of Public Health, UM-AA, Graduate Student

Cancer-associated thoraxia, and scapular impairments in cancer survivors
David Libs, Assistant Professor, Movement Science, School of Kinesiology, UM-AA
Saanan Rubinsohn Smith, Assistant Professor, Physical Medicine and Rehabilitation, Medical School, UM-AA
Shruti Jolly, Associate Professor, Radiation Oncology, Medical School, UM-AA
Abezadeh Meshkay, Clinical Associate Professor, Plastic Surgery, Medical School, UM-AA
Josh Leonard, School of Kinesiology, UM-AA, Graduate Student
Bhakti Lukic*, School of Kinesiology, UM-AA, Undergraduate Student
Brian Diefenbach*, School of Kinesiology, UM-AA, Undergraduate Student

Evaluating cervical, thoracic, and scapular impairments in cancer survivors
Brian Dale Rosa, Professor, Radiology, Medical School, UM-AA
Cagri Giray Besirli, Assistant Professor, Otolaryngology—Head and Neck Surgery, Medical School, UM-AA

Evaluating Targeted Oncogenic Inhibitors
Brian Dale Rosa, Professor, Radiology, Medical School, UM-AA
Cagri Giray Besirli, Associate Professor, Otolaryngology—Head and Neck Surgery, Medical School, UM-AA
Erica Katz*, LSA: Natural Sciences, UM-AA, Undergraduate Student

MCubed Symposium 2017
Mechanisms of epigenetic regulation of transcription and new targets for cancer therapeutics

Tom Kuypers, Professor, Biological Chemistry, Medical School, UM-MA
Davin Son, Associate Professor, Pharmaceutical Sciences, College of Pharmacy, UM-MA
Shaunmug Wang, Professor, Internal Medicine, Medical School, UM-MA
Rebecca Monty, Pharmaceutical Sciences, College of Pharmacy, UM-MA, Postdoctoral Fellow
Miao Chia Le, Pharmaceutical Sciences, College of Pharmacy, UM-MA, Postdoctoral Fellow
Yanqin Cheng, Biological Chemistry, Medical School, UM-MA, Postdoctoral Fellow
Veronica Bums, Biological Chemistry, Medical School, UM-MA, Postdoctoral Fellow
Lijun Feng, Biological Chemistry, Medical School, UM-MA, Postdoctoral Fellow
Tian Yun Ahmad, University of Michigan, Undergraduate Student

Metabolic profiling of cyst fluid to discover novel diagnostic biomarkers to guide clinical management of pancreatic cystic neoplasms

Jiang Shi, Clinical Assistant Professor, Pathology, Medical School, UM-MA
Xiaoqiang William Wei, Assistant Professor, Biostatistics, School of Public Health, UM-MA
Diane Simeone, Professor, Surgery, Adjunct Professor, Molecular and Integrative Physiology, Medical School, UM-MA
Costas Lysiotis, Assistant Professor, Molecular & Integrative Physiology, Medical School, UM-MA
Kathleen Stringer, Professor, Clinical Pharmacy, College of Pharmacy, UM-MA
Larisa Yeomans, NMU Facility Manager, Pharmacy, College of Pharmacy, UM-MA
Shanping Wei, Pathology, Medical School, UM-MA, Postdoctoral Fellow

Micro-Dosimetric Quantities for Understanding Radiation Effect Health

Kimberlee Kearfott, Professor, Nuclear Engineering & Radiological Sciences, Biomedical Engineering, College of Engineering, UM-MA
Dipak Ray, Assistant Professor, Radiation Oncology, Medical School, UM-MA
Sara A. Pazzi, Professor, Nuclear Engineering & Radiological Sciences, College of Engineering, UM-MA
Angelica DiPiazza, Nuclear Engineering & Radiological Sciences, College of Engineering, UM-MA, Postdoctoral Fellow

Microfluidic droplet microfluidic co-cultivation and meta-genome characterization

Xiaoxia Liu, Associate Professor, Chemical Engineering, College of Engineering, UM-MA
David Sherman, Research Professor, Life Sciences Institute, Professor and Associate Dean, Medical Chemistry, College of Pharmacy, UM-MA
Professor, Chemistry, LSA, Natural Sciences, Professor, Microbiology, and Immunology, Medical School, UM-MA
Mark Burns, Professor, Chemical Engineering, College of Engineering, UM-MA
Sida “Steven” Wang, Chemical Engineering, College of Engineering, UM-MA, Graduate Student

Suppression of β-catenin hyperactivity by HIFs: Implications in colon cancer therapeutics

Cunning Dean, Professor, Microbiology, Cellular, and Developmental Biology, LSA, Natural Sciences, UM-MA
Yatir M. Shah, Associate Professor, Molecular and Integrative Physiology, Medical School, UM-MA
Eremnoba Sobhipani, Professor, Orthopaedic Surgery, Medical School, UM-MA
Xiang Roe, Research Investigator, Molecular and Integrative Physiology, Medical School, UM-MA
Chendong Liu, Molecular and Integrative Physiology, Medical School, UM-MA, Graduate Student
Lijing Weng, Molecular, Cellular, and Developmental Biology, LSA, Natural Sciences, UM-MA, Undergraduate Student
Daniel Triner, Physiology, Medical School, UM-MA, Graduate Student
Xiaoya Ma, Molecular and Integrative Physiology, Medical School, UM-MA, Postdoctoral Fellow
Angela Yue, Medicine, Medical School, UM-MA

Sustained immune checkpoint therapy for treatment of brain cancer

Steve Schvendeman, Professor, Pharmaceutical Sciences, College of Pharmacy, UM-MA
Anna Schvendeman, Assistant Professor, Molecular Medicine, College of Pharmacy, UM-MA
Maria Castro, Professor, Neuropsychology, Cell and Developmental Biology, Medical School, UM-MA
Padma Kadiyala, Assistant Professor, Molecular Medicine, College of Pharmacy, UM-MA
Roe Sung Cheng, Pharmaceutical Sciences, College of Pharmacy, UM-MA, Postdoctoral Fellow
Jenna Walker, Pharmaceutical Sciences, College of Pharmacy, UM-MA, Graduate Student

Targeting epigenetic modifiers as selective therapy for cancer

Cezara Nikolaevska Cezolea, Associate Professor, Pathology, Medical School, UM-MA
Jean Maillard, Research Associate Professor, Life Sciences Institute, Associate Professor, Internal Medicine, Cell and Developmental Biology, Medical School, UM-MA
Andrew Muntz, Associate Professor, Pathology, Medical School, UM-MA
Siamak Giripally, Pathology, Medical School, UM-MA, Graduate Student
Jennifer Chase, Cell and Developmental Biology, Life Sciences Institute, UM-MA, Graduate Student
Justine Sera, Pathology, Medical School, UM-MA, Graduate Student

Transcriptomic and genomica analysis to identify shared cRNAs and IncRNAs in cell dedifferentiation, proliferation and cancer stem cells

Max-Kahana, Associate Professor, Pathology & Visual Sciences, Medical School, UM-MA
Laina Butitta, Assistant Professor, Microbiology, Cellular, and Developmental Biology, LSA, Natural Sciences, UM-MA
Max S. Wicha, Professor, Internal Medicine–Hematology and Oncology, Medical School, UM-MA
Justin Collaeo, Assistant Professor, School of Public Health, UM-MA
Indika Rajapakse, Assistant Professor, Mathematics, LSA, Natural Sciences, UM-MA
Brian Magness, Research Scientist, Biostatistics, School of Public Health, UM-MA
Alistair Sauer-Vila, Ophthalmology and Visual Sciences, School of Dentistry, UM-MA
Yi Zhou, Medical School, UM-MA, Postdoctoral Fellow
Kir alie Lossie, School of Dentistry, UM-MA, Graduate Student

Understanding personalized chemotherapy-induced neuropathy by virtual GPCR screening and clinical evaluation

Yang Zhang, Professor, Computational Medicine and Bioinformatics, Biological Chemistry, Medical School, UM-MA
Yangyan He, Associate Professor, Laboratory Animal Medicine, Medical School, UM-MA
Daniel Hertz, Research Assistant Professor, Clinical Pharmacy, College of Pharmacy, UM-MA
Wallace Chan, Biochemistry, Medical School, UM-MA, Graduate Student

Understanding the impact of shock waves on tumor cells

Yi-Li Young, Professor, Naval Architecture & Marine Engineering, College of Engineering, UM-MA
Elies Arzoua, Professor, Mechanical Engineering, Biomedical Engineering, College of Engineering, UM-MA
Soofi Monique, Professor, Internal Medicine–Hematology/Therapy, Medical School, UM-MA
Allen Cia, Assistant Professor, Mechanical Engineering, Biomedical Engineering, College of Engineering, UM-MA
Yi-Qiang Liao, Naval Architecture & Marine Engineering, College of Engineering, UM-MA, Graduate Student
James Gone, Naval Architecture & Marine Engineering, College of Engineering, UM-MA, Graduate Student

Unraveling role of tumor microenvironment in modulating chromatin dynamics in cancer cells

Deepak Nagaraj, Associate Professor, Biomedical Engineering, College of Engineering, UM-MA
Jayakrishnan Nandakumar, Assistant Professor, Microbiology, Cellular, and Developmental Biology, LSA, Natural Sciences, UM-MA
Santiesh Lee, Assistant Professor, Biomedical Engineering, College of Engineering, UM-MA
cells, Molecules, Biosciences

A novel delivery system for cell-based therapy
Zhong Wang, Associate Professor; Cellular Surgery, Medical School, UM-AA
Peter X. Ma, Professor, Biology and Materials Sciences, School of Dentistry, Biological Engineering, Medical School, Materials Science & Engineering, College of Engineering, UM-AA
Kazu Saitoe, Professor; Mechanical Engineering, College of Engineering, UM-AA
Kang Ching Chiu, Mechanical Engineering, College of Engineering, UM-AA, Post-Doc Fellow
Shuo Tian, Cardiac Surgery, Medical School, UM-AA, Post-Doc Fellow

An interdisciplinary approach to understanding the inner workings of bacteria cells
Julie Blitner, Associate Professor; Chemistry, LSA: Natural Sciences, UM-AA
Lyne Simonos, Associate Professor; Molecular, Cellular, and Developmental Biology, Natural Sciences, UM-AA
Nicole Kerppola, Assistant Professor; Microbiology and Immunology, Medical School, UM-AA
Hamza Tasson, Chemistry, LSA: Natural Sciences, UM-AA, Post-Doc Fellow
Matthew Foley, Microbiology and Immunology, Medical School, UM-AA, Graduate Student
Hannah Chia, Chemical Biology, LSA: Natural Sciences, UM-AA, Graduate Student

Application of Raman-microscopy to Single-cell Based Lipidic Analysis
Krishnan Raghavendran, Professor, Nanoscale Surgery, Medical School, UM-AA
Kathleen Stringer, Professor; Clinical Pharmacy, College of Pharmacy, UM-AA
Gustavo Rosania, Professor; Pharmaceutical Sciences, College of Pharmacy, UM-AA
Vernon Lalose, Pharmaceutical Sciences, College of Pharmacy, UM-AA, Graduate Student

Determination of relationships between phosphoinositides lipids and neoplastic cells
Luis Weinstein, Research Professor; Life Sciences Institute, Professor; Cell & Developmental Biology, Medical School, UM-AA
Stephen J. Weiss, Research Professor; Life Sciences Institute, Professor; Internal Medicine, Medical School, UM-AA
Ming Li, Assistant Professor; Molecular, Cellular, and Developmental Biology, LSA: Natural Sciences, UM-AA
Guanzhong Loo, Cell and Developmental Biology, Life Sciences Institute, UM-AA, Post-Doc Fellow
Farshid Salek, Life Sciences Institute, UM-AA, Post-Doc Fellow
Xu Yang, Molecular, Cellular, and Developmental Biology, LSA: Natural Sciences, UM-AA, Post-Doc Fellow

Development of model systems to define causes of hypertension
William Rainey, Professor; Molecular & Integrative Physiology, Medical School, UM-AA
Adina Tore, Assistant Professor; Metabolism & Endocrinology, Medical School, UM-AA
Alex Toublon, Professor; Biostatistics, School of Public Health, UM-AA
Ayi Nambo, Internal Medicine, Medical School, UM-AA, Post-Doc Fellow
Julie Rege, Physiology, Medical School, UM-AA, Post-Doc Fellow

Digital Alchemy for Protein Design
Heather Mayes, Assistant Professor, Chemical Engineering, College of Engineering, UM-AA
Sharon C. Glotzer, Professor and Department Chair, Chemical Engineering, College of Engineering, UM-AA
Greg Van Andes, Assistant Professor; Physics, LSA: Natural Sciences, UM-AA
Alex Adams, Chemical Engineering, College of Engineering, UM-AA, Graduate Student
Rahib Poostgarthy, Data Science, College of Engineering, UM-AA, Undergraduate Student

Energetics of bone and fat metabolism
Ken Kucich, Associate Professor; Orthopedic Surgery, Medical School, UM-AA
Gouda Drake, College of Engineering, UM-AA
Osman A. MacDougall, Professor; Molecular and Integrative Physiology, Medical School, UM-AA
Renny T. Francausco, Professor; Parasitology & Oral Medicine, School of Dentistry, Biological Medicine, Medical School, College of Engineering, College of Engineering, UM-AA
Famea Mohamed, Oral Health Sciences, School of Dentistry, UM-AA, Graduate Student

Engineering microenvironments to regulate mesenchymal stem cell secretome
Garji Ghosh, Associate Professor; Mechanical Engineering, College of Engineering & Computer Science, UM-D
Joerg Lahann, Professor, Chemical Engineering, College of Engineering, UM-AA
Gary Luker, Professor, Radiology, Medical School, UM-AA
Malak Nasser, Mechanical Engineering, College of Engineering & Computer Science, UM-D, Undergraduate Student
Bred Plumier, College of Engineering, UM-AA, Post-Doc Fellow
Ann Gibbons, Medical School, UM-AA, Graduate Student
Johanna Buschhaus, Radiology, Medical School, UM-AA, Graduate Student
Torella Opi, LSA: Natural Sciences, UM-AA, Undergraduate Student

Impact of Epitope Density on B Cell Activation
Wei Cheng, Associate Professor, Pharmaceutical Sciences, College of Pharmacy, UM-AA
James Moon, Assistant Professor; Pharmaceutical Sciences, College of Pharmacy, Biomedical Engineering, College of Engineering, UM-AA
Irina Grigorjev, Assistant Professor; Microbiology and Immunology, Medical School, UM-AA
Zhilei Chen, Pharmaceutical Sciences, College of Pharmacy, UM-AA, Graduate Student

Modeling peri-implantation events using human embryonic stem cells
Deborah L. Ganzucio, Professor; Cell and Developmental Biology, Medical School, UM-AA
Sundee Kalsey, Assistant Professor; Human Genetics, Medical School, UM-AA
Ann Miller, Assistant Professor; Molecular, Cellular, and Developmental Biology, LSA: Natural Sciences, UM-AA
Jungiu Fu, Assistant Professor, Mechanical Engineering, College of Engineering, UM-AA
You Xuan, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Kanichiro Taniguchi, Cell and Developmental Biology, Medical School, UM-AA, Post-Doc Fellow
Ryan Townsend, Cell and Molecular Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student

Modulation of Enzyme Catalytic Rate and Specificity
Ari Galin, Professor; Biophysics, LSA: Natural Sciences, Research Professor, Institute of Gerontology, College of Engineering, UM-AA
Duncan Steel, Professor; Electrical Engineering & Computer Science, College of Engineering, Physics, Biophysics, LSA: Natural Sciences, UM-AA
Charles Brooks, III, Professor; Biophysics, LSA: Natural Sciences (UM-AA), Postdoctoral Fellow

Nanomechanical characterization of living biological systems using atomic force microscopy
Peter Green, Biotechnology, Science and Technology, National Renewable Energy Laboratory
Paul K. Kirschhock, Sloan, School of Dentistry, ULLA
Osnatla Sinika-Adams, Professor, Chemical Engineering, College of Engineering, UM-AA
Aaron Tan, College of Engineering, UM-AA, Post-Doc Fellow
Jill Woodard, College of Engineering, UM-AA, Graduate Student

Oral epithelial stem cells–implications for novel therapeutic approaches
Silvia Papiarka, Research Associate Professor; Oncology-Head and Neck Surgery, Medical School, Associate Research Scientist, Parasitology and Oral Medicine, School of Dentistry, UM-AA
Arielia Shok CAMERA: Assistant Professor, Biomedical Engineering, College of Engineering, UM-AA
Hong Zhu, Biomedical Engineering, College of Engineering, UM-AA, Graduate Student
Salmi Jaiakam, Biomedical Engineering, College of Engineering, UM-AA, Undergraduate Student

Posters
A summer school on oceanography and the environment: Capacity building in Ghana, West Africa
Brian Arbo, Associate Professor, Earth and Environmental Sciences, LSA, Natural Sciences, UM-AA
Adam Charles Simeon, Associate Professor, Earth and Environmental Sciences, LSA, Natural Sciences, UM-AA
Aline Cote, Associate Professor, Civil & Environmental Engineering, College of Engineering, UM-AA
Elenee Neydor, Research Scientist, University of New Orleans
Emily Shroyer, Professor, Oregon State University
Andrew Lucas, Professor, UC San Diego
Stephan Howden, Professor, University of Southern Mississippi
Elizabeth Kujawinski, Research Scientist, Woods Hole Oceanographic Institution
Dimitris Menemenlis, Research Scientist, NASA Jet Propulsion Laboratory
Captain Johnson Alidu Ayitey, Lecturer, Regional Maritime University, Ghana
Divya Nair, Visiting Scholar, Regional Maritime University, Ghana
Kwasi Appeaning-Adoo, Professor, University of Ghana
Joseph Ansong, Earth and Environmental Sciences, LSA, Natural Sciences, UM-AA, Undergraduate Student
Mark Finley, Earth and Environmental Sciences, LSA, Natural Sciences, UM-AA, Undergraduate Student
Jessica Nicks, Earth and Environmental Sciences, LSA, Natural Sciences, UM-AA, Undergraduate Student
Erich Eberhard, UM-AA, Undergraduate Student
Paige Martin, Physics, LSA, Natural Sciences, UM-AA, Graduate Student
Brian Koeck, Earth and Environmental Sciences, LSA, Natural Sciences, UM-AA, Undergraduate Student
Jennifer Moskel, Integrative Arts and Sciences, UM-AA, Graduate Student
Madeline Foster-Martinez, University of California, Berkeley, Graduate Student
Michelle Bellows, Assistant Professor, Educational Studies, School of Education, UM-AA
Klytster Trausti, Associate Professor, Sociology, LSA, Social Sciences, UM-AA
Christian Davernport, Professor, Political Science, LSA, Social Sciences, UM-AA
Jessica McCauley, School of Information, UM-AA, Graduate Student

Collaborate to Learn: Learning by Doing (Hands-on Demonstration)
Perry Samuel, Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Clifford Lane, Associate Professor, School of Information, UM-AA
Mark Midebo, Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Daesun Jung, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Yusuke Nii, Electrical & Computer Engineering, College of Engineering, UM-AA, Graduate Student
Theo Miller, Computer Engineering, College of Engineering, UM-AA, Undergraduate Student

Collect/Connect: an interactive library game (Hands-on Demonstration)
Christi Merrill, Associate Professor, Comparative Literature, LSA, Humanities, Asian Languages and Cultures, UM-AA
Barbara Alvarez, Librarian, Libraries, UM-AA
Heidi Kumao, Associate Professor, Stamps School of Art & Design, UM-AA
Bruce Maimon, Professor, Engineering, Computer and Information Science, College of Engineering & Computer Science, UM-O
John Pasch, Classics, LSA, Humanities, UM-AA, Graduate Student
Luka Pacheco, IAM Lab, College of Engineering & Computer Science, UM-O, Undergraduate Student
Aristotles Papaoannou, IAM Lab, College of Engineering & Computer Science, UM-O, Undergraduate Student
Rachel Cawkwell, English, LSA, Humanities, UM-AA, Graduate Student
Jeremy York, School of Information, UM-AA, Graduate Student
Senior Design Team, IAM Lab, College of Engineering & Computer Science, UM-O, Undergraduate Student

Engaging the Archives: Researching Best Practices for Student Success in the Archives
Terrence McDonald, Professor, History, LSA, Humanities, UM-AA
Elizabeth Yakob, Senior Associate Dean, Provost Office of Student Information, UM-AA
Chace Young, Associate Professor, Educational Studies, School of Education, UM-AA
Cinda Nitzinger, Archivist for Academic Programs and Outreach, Bentley Historical Library, Libraries, UM-AA
Nancy Bartlett, Associate Director, Bentley Historical Library, Libraries, UM-AA
Patricia Garcia, School of Information, UM-AA, Postdoctoral Fellow
Harvey Lang, Graduate Student
Joseph Lueck, School of Information, UM-AA, Graduate Student

Understanding the redox activity of Sestrin-family proteins

Enhancing Cultural Prophility for Global Research and Education in STEM
A. Doña Fuller, Associate Professor, Microbiology and Immunology, Medical School, UM-AA
Robert Jagers, Associate Professor, Combined Program in Education and Psychology, School of Education, UM-AA
Avery H. Bomden, Professor, Civil & Environmental Engineering, College of Engineering, UM-AA
Amy Conger, Assistant Vice Provost and Director of Global Engagement, Office of Global Engagement, College of Engineering, UM-AA
Heidi Thompson, Student Services Coordinator, Microbiology and Immunology, Medical School, UM-AA
Cheong-Hoe Chang, Professor, Microbiology and Immunology, Medical School, UM-AA
Tai-Wu Li, Microbiology and Immunology, Medical School, UM-AA, Graduate Student

West African early human history using linguistics and genetics
Alisan Narvaez, Assistant Professor, Life Sciences Institute, UM-AA
Corena Schleifer, Assistant Professor, Chemistry, LSA, Natural Sciences, UM-AA
Carey Stephens, Professor, Chemistry, LSA, Natural Sciences, UM-AA
Carollyn Sue* L., UM-AA, Undergraduate Student

What Robots Can Teach Us About Snakes: Communicating with Color and Motion (Hands-on Demonstration)
Note: Also, see presentation during The MCubed Difference Symposium 2017

Education and Academic Innovation

Understanding the redox activity of Sestrin-family proteins
Jun Hee Lee, Associate Professor, Molecular & Integrative Physiology, Medical School, UM-AA
Uh Sun Cho, Assistant Professor, Biological Chemistry, Medical School, UM-AA
Brent Martin, Assistant Professor, Chemistry, LSA, Natural Sciences, UM-AA
Eric Meintz* Molecular & Integrative Physiology, Medical School, UM-AA, Undergraduate Student
Chau Sou Chau, Molecular & Integrative Physiology, Medical School, UM-AA, Postdoctoral Fellow
Hannah Kim, Biological Chemistry, Medical School, UM-AA, Postdoctoral Fellow
Yoo Hoon Koo, Chemistry, LSA, Natural Sciences, UM-AA, Graduate Student

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Amy Conger, Assistant Vice Provost and Director of Global Engagement, Office of Global Engagement, College of Engineering, UM-AA
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Cheong-Hoe Chang, Professor, Microbiology and Immunology, Medical School, UM-AA
Tai-Wu Li, Microbiology and Immunology, Medical School, UM-AA, Graduate Student

Talents at hands: Learning to Do (Hands-on Demonstration)

Collect/Connect: an interactive library game (Hands-on Demonstration)

The Archives: Researching Best Practices for Student Success in the Archives

Undergraduate Human Rights Index: Developing and Piloting a Metric
Michelle Bellows, Assistant Professor, Educational Studies, School of Education, UM-AA

Collaborate to Learn: Learning by Doing (Hands-on Demonstration)
Perry Samuel, Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Clifford Lane, Associate Professor, School of Information, UM-AA
Mark Midebo, Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Daesun Jung, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Yusuke Nii, Electrical & Computer Engineering, College of Engineering, UM-AA, Graduate Student
Theo Miller, Computer Engineering, College of Engineering, UM-AA, Undergraduate Student

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Understanding the redox activity of Sestrin-family proteins

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Talents at hands: Learning to Do (Hands-on Demonstration)

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Cheong-Hoe Chang, Professor, Microbiology and Immunology, Medical School, UM-AA
Tai-Wu Li, Microbiology and Immunology, Medical School, UM-AA, Graduate Student

Talents at hands: Learning to Do (Hands-on Demonstration)
Intend to Attend: Michigan's Contribution to Precollege Learners

Micha Lévêque-Mary, Professor, Political Science, LSA, Social Sciences, UM-AA

Timothy McKay, Professor, Physics, Astronomy, LSA: Natural Sciences, Educational Studies, School of Education, UM-AA

Joanna Millunchick, Associate Dean, Professor, Materials Science & Engineering, College of Engineering, UM-AA

Meghan Taylor, Research Associate, Office of Academic Innovation, UM-AA

Learning Analytics for Interprofessional Competencies

Melissa Gross, Associate Professor, Movement Science, School of Kinesiology, UM-AA

Thomis Temple, Associate Dean, Professor, Health and Fitness, School of Kinesiology, UM-AA

Carrie Michelle Stalcup, Assistant Professor, Obstetrics & Gynecology, Medical School, UM-AA

Gratiana Fu, Health Informatics, School of Public Health, UM-AA, Graduate Student

Environmental Science and Sustainability

A study of size structured competition models to understand tree species coexistence

Annette Oltjen, Associate Professor, Ecology & Evolutionary Biology, LSA: Natural Sciences, UM-AA

Charles Ong, Professor, Computer Systems, Mathematics, Physics, LSA: Natural Sciences, UM-AA

Krishna Garkoti, Professor, Mechanical Engineering, College of Engineering, Mathematics, LSA: Natural Sciences, UM-AA

Ursula Triepke-Raczkowski, Mathematics, LSA: Natural Sciences, UM-AA, Graduate Student

Davidson AI, Ecology and Evolutionary Biology, LSA: Natural Sciences, UM-AA, Postdoctoral Fellow

Atmospheric Deposition of Phosphorus across the Great Lakes Region

Joseph Devench, Associate Professor, Environmental Health Sciences, School of Public Health, UM-AA

Allison L. Stein, Associate Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA

Chuanwu Xi, Professor, Environmental Health Sciences, School of Public Health, UM-AA

Mary Lynn, Assistant Research Scientist, Environmental Health Sciences, School of Public Health, UM-AA

Stacey Kowevich, Climate & Space Sciences & Engineering

College of Engineering, UM-AA, Graduate Student

Taylor Mao, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student

Contaminated Sediment Remediation: Assessment of Human Health Benefits and Risks

Olivier J. Jolliff, Professor, Environmental Health Sciences, School of Public Health, UM-AA

Jeremy Sennar, Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

G. Allen Burton, Professor, Environment and Sustainability, School of Environment and Sustainability, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA

Lai Huang, Environmental Health Sciences, School of Public Health, UM-AA, Post-Doctoral Fellow

Jacob Krassicka, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student

Detroit Environmental Justice & Education Organization Database

Christopher J. F. Burke, Associate Professor, Education, College of Education, Health, & Human Services, UM-D, Undergraduate Student

Terri Lewis, Assistant Professor, Health & Human Services, African and African American Studies, College of Education, Health, & Human Services, UM-D

Donald J. Bord, Professor Emeritus, Health and Human Services, College of Education, Health, & Human Services, UM-D, UM-D, Graduate Student

Cassandra Byrd, Education, College of Education, Health, & Human Services, UM-D, Graduate Student

Kimberly Doris, Health and Human Services, College of Education, Health, & Human Services, UM-D, Graduate Student

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Zachary Johnson, Assistant Professor, Marketing, Ross School of Business, UM-AA

Jason Abraham, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

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Keith Hoden, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

Nicole Rockey, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

Yun Shen, Civil & Environmental Engineering, College of Engineering, UM-AA, Postdoctoral Fellow

David Yeece, Geography, Planning & Environment, UM, M-F, Undergraduate Student

Zachary Hayes, Geography, Planning & Environment, UM, M-F, Undergraduate Student

Exploring the microbiology of harmful algae blooms

Gregory Dick, Associate Professor, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA

Vincent Derfler, Assistant Professor, Ecology and Evolutionary Biology, LSA: Natural Sciences, UM-AA

Don Scavia, Professor, Environment and Sustainability, Graham Sustainability Institute, UM-AA

Marian Schmidt, Ecology & Evolutionary Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student

Kyle Buffet, Ecology and Evolutionary Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student

Kathryn Schmidt, Ecology & Evolutionary Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student

Sara Jaczek, Ecology and Evolutionary Biology, LSA: Natural Sciences, UM-AA, Postdoctoral Fellow

Kevin Meyers, Natural Resources & Environment, School for Environment and Sustainability, UM-AA, Postdoctoral Fellow

McKenzie Powers, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Undergraduate Student

Karin Nelson, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Undergraduate Student

Michael Rader, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Undergraduate Student

Kendall Schissler, LSA: Natural Sciences, UM-AA, Undergraduate Student

Improving the energy efficiency of buildings participating in power system ancillary services

Johanna Matthews, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

Jeremiah Johnson, Associate Professor, Civil, Construction, and Environmental Engineering, College of Engineering, NC State University

Jan A. Hicks, Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

Kevin Morgan, Regional Energy Manager, Plant Operations, UM-AA

David Anderson, Building Automation Systems, UM-AA

Scott Backhaus, Program Manager, Los Alamos National Laboratory

John Wolfe, Electrical Engineering & Computer Science, College of Engineering, UM-AA, Undergraduate Student

Yashe Liu, Electrical Engineering & Computer Science, College of Engineering, UM-AA, Undergraduate Student

Sina Alshahi, Electrical Engineering & Computer Science, College of Engineering, UM-AA, Undergraduate Student

Adina Kashkar, Electrical and Computer Engineering, College of Engineering, UM-AA, Graduate Student

Paul Giessner, Regional Energy Manager, Plant Operations, UM-AA

Mike Krieger, Electrical Engineering & Computer Science, College of Engineering, UM-AA, Undergraduate Student

Drone-enabled photogrammetry characterization of earthquake induced landslides

Dimitris Zekkos, Associate Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

Marin Kristen Clark, Associate Professor, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA

Jerome Peter Lynch, Professor and Department Chair, Civil & Environmental Engineering, College of Engineering, UM-AA

William Greenwood, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

Hou Zhao, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

William Medwedeff, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Graduate Student

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Hou Zhao, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

William Medwedeff, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Graduate Student

Effectiveness of Lead Pipe Replacement in Reducing Water Lead Levels

Torien M. Olson, Associate Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

Steven J. Wright, Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

Rebecca Hardin, Associate Professor, School for Environment and Sustainability, UM-AA

Lundare Rustik, Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

Brian Ellis, Assistant Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

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Brian Ellis, Assistant Professor, Civil & Environmental Engineering, College of Engineering, UM-AA

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Nicole Rockey, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

Yun Shen, Civil & Environmental Engineering, College of Engineering, UM-AA, Postdoctoral Fellow

David Yeece, Geography, Planning & Environment, UM, M-F, Undergraduate Student

Zachary Hayes, Geography, Planning & Environment, UM, M-F, Undergraduate Student

*MCubed Scholar
Integration of Airborne Particle Molecular Structure & Physicochemical Properties with Exposure-Induced Toxicological Responses
Andrew Ault, Assistant Professor, Environmental Health Sciences, School of Public Health, UM-AA
Dana Dolezay, Associate Professor, Environmental Health Sciences, Nutritional Sciences, School of Public Health, UM-AA
Kerri Pratt, Assistant Professor, Chemistry, LSA: Natural Sciences, UM-AA
Jason Surratt, Associate Professor, Environmental Sciences and Engineering, College of Engineering, School of Global Public Health, University of North Carolina-Chapel Hill
Houpto Shen, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Ying-Hsuan Lin, Chemistry, LSA: Natural Sciences, UM-AA, Postdoctoral Fellow
Ziying Lin, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student

Nanoporous infrared windows for radiative sky cooling
Modeling soot from cradle to grave (from engine to ambient atmosphere)
Margarret Wooldridge, Professor, Mechanical Engineering, College of Engineering, UM-AA
Masako Morishita, Research Assistant Professor, Environmental Health Sciences, School of Public Health, UM-AA
Venkataraaanan Ramas, Associate Professor, Aerodynamic Engineering, College of Engineering, UM-AA
Paul Aryan, Assistant Research Scientist, Aerospace Engineering, College of Engineering, UM-AA
Rachel Schwind, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student

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Paul Aryan, Assistant Research Scientist, Aerospace Engineering, College of Engineering, UM-AA
Rachel Schwind, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student

Opportunistic pathogens in Domestic Hot Water Supply and Recirculation System and Their Release to Indoor Air
Lutgardas Ruskin, Professor, Civil & Environmental Engineering, College of Engineering, UM-AA
Krista Wigginton, Assistant Professor, Civil & Environmental Engineering, College of Engineering, UM-AA
Nicolai Kornely, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student
James Yoon, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student
Sarah-Joan Hous, Civil & Environmental Engineering, College of Engineering, UM-AA, Undergraduate Student
Lieu Ellen Setiawan, Civil & Environmental Engineering, College of Engineering, UM-AA, Undergraduate Student

Public health and public policy approaches to electronic waste recycling
Richard Nollett, Associate Professor, Environmental Health Sciences, School of Public Health, UM-AA
Shibata Patharayasa, Associate Professor, Public Policy, Ford School of Public Policy, Women's Studies, LSA: Social Sciences, UM-AA
Sara Ader, Associate Professor, Epidemiology, School of Public Health, UM-AA
Jesse Austin-Breneman, Assistant Professor, Mechanical Engineering, College of Engineering, UM-AA
Olivier Joblet, Professor, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Stephanie Snyder, Research Area Specialist-Senior, Environmental Health Sciences, School of Public Health, UM-AA
Aubrey Langlois, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Lauren Smith, Environmental Sciences and Engineering, School of Public Health, UM-AA, Graduate Student
Gyorgy Gal, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Katherine Clayton, First School of Public Policy, UM-AA, Graduate Student
Andrea Guglielmo, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Margaux Emery, Nutrition Sciences, School of Public Health, UM-AA, Graduate Student
Suzanne Chen, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student

Photocatalytic Chemical Transformation of Carbon Dioxide
Neel Erespan, Assistant Professor, Mechanical Engineering, College of Engineering, UM-AA
Charles McCray, Assistant Professor, Chemistry, LSA: Natural Sciences, UM-AA
Johannes W. Schmuck, Professor, Chemical Engineering, College of Engineering, UM-AA
Galen Fischer, Adjunct Professor, Chemical Engineering, College of Engineering, UM-AA
Ashley Bielinski, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Neena Singh*, Mechanical Engineering, College of Engineering, UM-AA, Undergraduate Student
Eugene Konak*, Chemical Engineering, College of Engineering, UM-AA, Undergraduate Student
Sourabh Lee, Mechanical Engineering, College of Engineering, UM-AA, Postdoctoral Fellow
Andrew Gayle, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Ching Yee See, Chemical Engineering, College of Engineering, UM-AA, Graduate Student
Chao-Cang Lin, Chemistry, LSA: Natural Sciences, UM-AA, Postdoctoral Fellow
Amin Rahimi, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Kwan Leung, Chemistry, LSA: Natural Sciences, UM-AA, Graduate Student

Understanding mechanisms underlying the rate of recovery of mercury-contaminated lakes
Paul Drevnick, Assistant Professor, School for Environment and Sustainability, UM-AA
Removal of radioactive radium from hydrofracking flowback water
Udo Becker, Professor, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA
Brian Ellis, Assistant Professor, Civil & Environmental Engineering, College of Engineering, UM-AA
Kim F. Hayes, Professor and Chair, Civil & Environmental Engineering, College of Engineering, UM-AA
Will Bender, Earth and Environmental Sciences, LSA: Natural Sciences, UM-AA, Graduate Student
Yeqing Bi, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

Understanding East African Wildlife Through Big Data and Bio-Tagging
Matthew Johnson-Robinson, Assistant Professor, Naval Architecture & Marine Engineering, College of Engineering, UM-AA
Bilal Butt, Associate Professor, School for Environment and Sustainability, UM-AA
Jacob Abernethy, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Yi-Huei (Jeffrey) Hsu, College of Engineering, UM-AA, Graduate Student
Aniska Shibli, College of Engineering, UM-AA, Undergraduate Student

Understanding human adaptation to climate change in forest ecosystems
Paige Fischer, Assistant Professor, School for Environment and Sustainability, UM-AA
Gretchen Koppel-Akles, Assistant Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Seth Guilmore, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-AA
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Matthew Johnson-Robinson, Assistant Professor, Naval Architecture & Marine Engineering, College of Engineering, UM-AA
Bilal Butt, Associate Professor, School for Environment and Sustainability, UM-AA
Jacob Abernethy, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Yi-Huei (Jeffrey) Hsu, College of Engineering, UM-AA, Graduate Student
Aniska Shibli, College of Engineering, UM-AA, Undergraduate Student

Understanding human adaptation to climate change in forest ecosystems
Paige Fischer, Assistant Professor, School for Environment and Sustainability, UM-AA
Gretchen Koppel-Akles, Assistant Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Seth Guilmore, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-AA
Matt Hamilton, School for Environment and Sustainability, UM-AA, Postdoctoral Fellow
110 Using Museum Collections and Field Ecology to Understand Changes in Human Health
Karl Joyce, Professor, Orthopaedic Surgery, Medical School, UM-AA
Cody Thompson, Assistant Research Scientist, Ecology and Evolutionary Biology, LSA: Natural Sciences, UM-AA
Ben Dantzer, Assistant Professor, Psychology, LSA: Social Sciences, UM-AA
Richard Nakao, Biomedical Engineering, UM-AA, Graduate Student
Daniel Nordorf, Entomology and Evolutionary Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student
Gregory Powell, Biomedical and Evolutionary Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student
Austin Riff, Ecology and Evolutionary Biology, LSA: Natural Sciences, UM-AA, Undergraduate Student
Kataryn Vodicka, Biomedical and Evolutionary Biology, LSA: Natural Sciences, School of Environment and Sustainability, UM-AA, Undergraduate Student

The Human Body

111 Blood flow Restriction Training to Improve Muscle Strength and Function following knee injury
Rianne Palmeri-Smith, Associate Professor, School of Kinesiology, UM-AA
Christopher Moudas, Associate Professor, Orthopaedic Surgery, Medical School, UM-AA
Ashoksh Bud, Associate Professor, Orthopaedic Surgery, Medical School, UM-AA
Michael Curran, School of Kinesiology, UM-AA, Graduate Student

Bone density, macro/micro-architecture, and marrow adiposity in children and adolescents with cerebral palsy
Mark Donald Petersen, Assistant Professor, Physical Medicine and Rehabilitation, Medical School, UM-AA
Maureen Delvin, Assistant Professor, Anthropology, LSA: Social Sciences, UM-AA
Michelle Caird, Associate Professor, Orthopaedic Surgery, Medical School, UM-AA
Daniel Whitney, Physical Medicine and Rehabilitation, Medical School, UM-AA, Postdoctoral Fellow

Cardiac Nerve-specific Ablation for Arrhythmias
Raul Koppersman, Professor, Chemistry, LSA: Natural Sciences, UM-AA
David M. Ruff, Research Associate Professor, Pediatrics, Medical School, UM-AA
Jose Caldas, Assistant Professor, Biology and Medicine, Medical School, Brown University
Iman Williams*, LSA: Natural Sciences, UM-AA, Undergraduate Student

114 Comprehensive Evaluation of Kidney Transplantation in Liver Transplant Patients
Douglas Schaubel, Professor, Biostatistics, School of Public Health, UM-AA
Randall Song, Associate Professor, Surgery, Medical School, UM-AA
Pampanura S. Rao, Associate Professor, Internal Medicine–Nephrology, Medical School, UM-AA
Kevin He, Research Assistant Professor, Biostatistics, School of Public Health, UM-AA
Tianyu Zhu, Biostatistics, School of Public Health, UM-AA, Graduate Student

Improving Renal Outcomes among Liver Transplant Recipients
Pratima Sharma, Associate Professor, Internal Medicine, Medical School, UM-AA
Jeong Park, Clinical Associate Professor, Clinical Pharmacy, College of Pharmacy, UM-AA
Christopher John Somnuk, Associate Professor, Transplant Surgery, Medical School, Health Management and Policy, School of Public Health, UM-AA
Claire Koerschner, LSA: Humanities, UM-AA, Undergraduate Student
Sara Seltman, College of Pharmacy, UM-AA, Postdoctoral Fellow
Soej Palinkas, Medical School, UM-AA, Graduate Student

115 Interaction between growth factor and mechano-stress signals for bone maintenance
Yujie Mishina, Professor, Biology and Materials Sciences, School of Dentistry, UM-AA
Rhina Coleman, Assistant Professor, Biomedical Engineering, College of Engineering, UM-AA
Allon Liu, Assistant Professor, Mechanical Engineering, College of Engineering, Biomedical Engineering, UM-AA
Justin Pavlick*, UM-AA, Undergraduate Student

116 Measures to improve auditory prosthesis function
Bryan E. Pfingst, Professor, Otolaryngology–Head and Neck Surgery, Medical School, UM-AA
Karl Grausk, Professor, Mechanical Engineering, College of Engineering, Biomedical Engineering, UM-AA
W. Alexander Arts, Assistant Professor, Otolaryngology–Head and Neck Surgery, Medical School, UM-AA
Kara C. Schwaab-Layssie, Instructor in Otolaryngology, Otolaryngology–Head and Neck Surgery, Medical School, UM-AA
Deborah J. Colesa, Research Laboratory Specialist Intermediate, Otolaryngology–Head and Neck Surgery, Medical School, UM-AA
Aeora P. Hughes, Research Technician Intermediate, Otolaryngology–Head and Neck Surgery, Medical School, UM-AA

117 Metabolic Phenotyping of Single Skeletal Muscle Fibers
Gregory D. Carle, Professor, Movement Science, School of Kinesiology, UM-AA
Jeff Horowitz, Professor, Movement Science, School of Kinesiology, UM-AA
Hemanta A. Ramana, Assistant Research Scientist, Biological Chemistry, Medical School, UM-AA
Giona Gille, Movement Science, School of Kinesiology, UM-AA, Postdoctoral Fellow
Haiyan Wang, Movement Science, School of Kinesiology, UM-AA, Postdoctoral Fellow

118 Mobile Knee-habilitation: optimizing the transition to home after knee replacement surgery
Susan Lynne Murphy, Associate Professor, Physical Medicine and Rehabilitation, Medical School, UM-AA
Catherine Connel, Professor and Department Chair, Health Behavior and Health Education, School of Public Health, UM-AA
Joseph Mattur, Clinical Assistant Professor, Orthopedic Surgery, Medical School, UM-AA

Novel Application of Spectral Ultrasound to the Diagnosis and Treatment of Heterotopic Ossification
Susan Lynne Murphy, Associate Professor, Physical Medicine and Rehabilitation, Medical School, UM-AA
Cheri X. Dong, Professor, Biomedical Engineering, College of Engineering, UM-AA
Benjamin Levi, Assistant Professor, Plastic Surgery, Medical School, UM-AA
Steven Buchman, Professor, Plastic Surgery, Medical School, UM-AA
Xiaowei Hong, Biomedical Engineering, College of Engineering, UM-AA, Graduate Student
Xiaowei Hong, Plastic Surgery, Medical School, UM-AA, Graduate Student
David Cholk, Plastic Surgery, Medical School, UM-AA, Graduate Student

Mechanisms of Oral Tactile Sensation
Robert M. Bradley, Professor, Biology and Materials Sciences, School of Dentistry, Molecular, Cellular & Integrative Physiology, Medical School, UM-AA
Charlotte Mistretta, Professor, Biology and Materials Sciences, College of Dentistry, UM-AA
Andrzej Dlugosz, Professor, Dermatology, Medical School, UM-AA
Yusuke Yokota, Biology and Materials Sciences, School of Dentistry, UM-AA, Postdoctoral Fellow
Archana Kumar, Biology & Materials Sciences, School of Dentistry, UM-AA, Postdoctoral Fellow

119 Novel framework to forecast supply and demand of liver donors in the United States (2 posters)
Mariel S. Levine, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-AA
Neelah Parikh, Clinical Lecturer, Internal Medicine–Gastroenterology, Medical School, UM-AA
David W. Hutton, Associate Professor, Health Management and Policy, School of Public Health, UM-AA
Elliot B. Tapper, Assistant Professor, Gastroenterology and Hepatology, Medical School, UM-AA
Monica Konerman, Clinical Lecturer, Gastroenterology and Hepatology, Medical School, UM-AA
Eunshin Byon, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-AA
Ariel S. Singal, Associate Professor, Medicine, University of Texas Southwestern, Dallas
Abhilash Raj, Assistant Professor, Internal Medicine, Medical School, UM-AA
Josely J. Marrero Cabel, Industrial & Operations Engineering, College of Engineering, UM-AA, Graduate Student
Huey-Fen Chen, Health Management and Policy, School of Public Health, UM-AA, Graduate Student
Hyatt Ati, Health Management and Policy, School of Public Health, UM-AA, Graduate Student
Ricardo Cummings, Industrial & Operations Engineering, College of Engineering, UM-AA, Undergraduate Student
Jiyun Wang, Industrial & Operations Engineering, College of Engineering, UM-AA, Undergraduate Student
Duwan Davis, Industrial & Operations Engineering, College of Engineering, UM-AA, Undergraduate Student
Justine Steurer, Industrial & Operations Engineering, College of Engineering, UM-AA, Undergraduate Student
Nathan Estes, Industrial & Operations Engineering, College of Engineering, UM-AA, Undergraduate Student

Regulation of bone stem cells by Hedgehog signaling
Norali Ose, Assistant Professor, Orthodontics and Pediatric Dentistry, School of Dentistry, UM-AA
Sunny Wong, Assistant Professor, Dermatology, Medical School, UM-AA
Wendie Ose, Assistant Professor, Orthodontics, School of Dentistry, UM-AA
Mawu Salou, Orthodontics and Pediatric Dentistry, School of Dentistry, UM-AA, Postdoctoral Fellow

The regulation of bone quantity and quality by mTOR signaling
Fei Liu, Associate Professor, Prosthodontics, School of Dentistry, UM-AA
Qing Li, Assistant Professor, Internal Medicine–Hematology and Oncology, Medical School, UM-AA
Andrea Alford, Assistant Professor, Internal Medicine–Hematology and Oncology, Medical School, UM-AA
Xiaowei Hong, Biologic and Materials Sciences and Division of Prosthodontics, School of Dentistry, UM-AA, Undergraduate Student
Haoxian Chou, Biologic and Materials Sciences, School of Dentistry, UM-AA, Undergraduate Student
Lu Liu, Internal Medicine, Medical School, UM-AA, Postdoctoral Fellow
Market-Making in Health Information Technology
Laraine Pesheck*
Kalei Glozier*
Ben Bugajski*
Angela Perone
Karina Lopez
Lanora Johnson
Nicole Bedera
Sandra R. Levitsky
Jasjot Kaur*
Tao Chen
Yi-Su Chen
Electricity Market
Jody Platt
Sharon Kardia
Holly Jarman
Yuchen Jiang
Ruiwei Jiang
Cong Shi
Roman Kapuscinski
Ross School of Business, UM-AA
Undergraduate Student
Medical School, UM-AA
College of Engineering, UM-AA
College of Engineering, UM-AA
Manufacturing Management, Ross School of Business, UM-AA
School of Information, UM-AA, Graduate Student
College of Engineering, UM-AA, Graduate Student
School of Public Health, UM-AA, Postdoctoral Fellow
School of Education, UM-AA
School of Public Health, UM-AA
Graduate Student
College of Arts, Sciences, & Letters, UM-D, Undergraduate Student
College of Education, Health, & Human Services, UM-D
Graduate Student
College of Arts, Sciences, & Letters, UM-D, Undergraduate Student
College of Arts, Sciences, & Letters, UM-D, Undergraduate Student
College of Arts, Sciences, & Letters, UM-D
German Languages and Literatures, UM-AA
Mathematics, LSA: Natural Sciences, UM-AA, Graduate Student
Comparative Literature, LSA: Humanities, UM-AA
Anthropology, LSA: Social Sciences, UM-AA
Postdoctoral Fellow
School of Education, UM-AA
Assistant Professor, Organizational Behavior and Human Resource Management, College of Business, UM-D
Assistant Professor, Organizational Behavior, Stamps School of Art & Design, UM-AA
Assistant Professor, Anthropology, LSA: Social Sciences, UM-AA
Assistant Professor, Anthropology, LSA: Social Sciences, UM-AA
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Smart Urine Sensor for At Home Biodynamic Health Monitoring: 1. Receptor-based Optical Detection

Jiaxin Kim, Associate Professor, Materials Science and Engineering, College of Engineering, UM-EE
Dara Chen, Assistant Professor, Medical School, UM-AA

183 Unobtrusive pressure monitoring system to enhance brace wear compliance in adolescent idiopathic scoliosis

Ondrej Dehaug, Assistant Professor, Computer and Information Science, College of Engineering & Computer Science, UM-D
S. Gyong Li, Assistant Professor, Orthopedic Surgery, Medical School, UM-MA
William Smotz, Professor and Department Chair, Computer and Information Sciences, College of Engineering & Computer Science, UM-D

184 Advanced Tracking of Space Objects

James W. Cutter, Associate Professor, Aerospace Engineering, College of Engineering, UM-MA
Patrick O. Saizor, Research Professor, Astronomy, LSA: Natural Sciences, UM-MA
Peter D. Wachuchuk, Associate Professor, Aerospace Engineering, College of Engineering, UM-MA

185 Data-Driven Methods in Simulation and Optimization Modeling

Hyun Soo Ahn, Professor, Technology and Operations, Ross School of Business, UM-MA
Eunshinn Byun, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-MA
Henry Lam, Assistant Professor, Industrial & Operations Engineering, College of Engineering, UM-MA

186 Mining social media to characterize community health

Tiffany Weier, Associate Professor, School of Information, UM-MA
Y.S. Wirod Yodworn, Assistant Professor, Learning Health Sciences, Medical School, UM-MA

187 Realize and Control Two-Dimensional Multiferroic Crystals

Linzhou Zhao, Assistant Professor, Physics, LSA: Natural Sciences, UM-MA, Graduate Student
Robert Hover, Assistant Professor, Materials Science & Engineering, College of Engineering, UM-MA
Parag Desai, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-MA

188 Keynote: Also, see presentation during The MCubed Difference

Jaclyn Pontell, Undergraduate Student, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Sam Hertz, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Kyla Cross, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Tanu Bhargava, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Rebecca White, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Yael Y. Pontell, Undergraduate Student, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA
Maria Bazarian, LSA: Natural Sciences, UM-MA, Graduate Student

IN THE MICHIGAN ROOM

Data, Informatics, Networks, Social Media

177 Advanced Tracking of Space Objects

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Patrick O. Saizor, Research Professor, Astronomy, LSA: Natural Sciences, UM-MA
Peter D. Wachuchuk, Associate Professor, Aerospace Engineering, College of Engineering, UM-MA

178 Crowd-Powered Intelligent Software Assistants

Walter S. Losecki, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-MA
Steve Dnee, Assistant Professor, School of Information, UM-MA
George Koul, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-MA

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Hyun Soo Ahn, Professor, Technology and Operations, Ross School of Business, UM-MA
Eunshinn Byun, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-MA
Henry Lam, Assistant Professor, Industrial & Operations Engineering, College of Engineering, UM-MA

180 Mining social media to characterize community health

Tiffany Weier, Associate Professor, School of Information, UM-MA
Y.S. Wirod Yodworn, Assistant Professor, Learning Health Sciences, Medical School, UM-MA

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Jaclyn Pontell, Undergraduate Student, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
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Kyla Cross, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Tanu Bhargava, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Rebecca White, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Yael Y. Pontell, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Maria Bazarian, LSA: Natural Sciences, UM-MA, Graduate Student

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Data, Informatics, Networks, Social Media

177 Advanced Tracking of Space Objects

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Patrick O. Saizor, Research Professor, Astronomy, LSA: Natural Sciences, UM-MA
Peter D. Wachuchuk, Associate Professor, Aerospace Engineering, College of Engineering, UM-MA

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George Koul, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-MA

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Hyun Soo Ahn, Professor, Technology and Operations, Ross School of Business, UM-MA
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Henry Lam, Assistant Professor, Industrial & Operations Engineering, College of Engineering, UM-MA

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Y.S. Wirod Yodworn, Assistant Professor, Learning Health Sciences, Medical School, UM-MA

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Jaclyn Pontell, Undergraduate Student, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Sam Hertz, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Kyla Cross, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Tanu Bhargava, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Rebecca White, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Yael Y. Pontell, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Maria Bazarian, LSA: Natural Sciences, UM-MA, Graduate Student

IN THE MICHIGAN ROOM

Data, Informatics, Networks, Social Media

177 Advanced Tracking of Space Objects

James W. Cutter, Associate Professor, Aerospace Engineering, College of Engineering, UM-MA
Patrick O. Saizor, Research Professor, Astronomy, LSA: Natural Sciences, UM-MA
Peter D. Wachuchuk, Associate Professor, Aerospace Engineering, College of Engineering, UM-MA

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George Koul, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-MA

179 Data-Driven Methods in Simulation and Optimization Modeling

Hyun Soo Ahn, Professor, Technology and Operations, Ross School of Business, UM-MA
Eunshinn Byun, Associate Professor, Industrial & Operations Engineering, College of Engineering, UM-MA
Henry Lam, Assistant Professor, Industrial & Operations Engineering, College of Engineering, UM-MA

180 Mining social media to characterize community health

Tiffany Weier, Associate Professor, School of Information, UM-MA
Y.S. Wirod Yodworn, Assistant Professor, Learning Health Sciences, Medical School, UM-MA

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Jaclyn Pontell, Undergraduate Student, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Sam Hertz, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Kyla Cross, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Tanu Bhargava, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Rebecca White, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Yael Y. Pontell, Undergraduate Student, Undergraduate Student, College of Engineering, UM-MA, Graduate Student
Maria Bazarian, LSA: Natural Sciences, UM-MA, Graduate Student
A Comparison of the In Vitro Three Dimensional Spheroids and in Vivo Patient Derived Xenografts (PDx) to Predict Treatment Responses for Patients with High Grade Serous Ovarian Cancer

Genta Motta, Assistant Professor, Material Science & Engineering, Biomedical Engineering, College of Engineering, UM-AA
Karen McLean, Assistant Professor, Obstetrics & Gynecology, Medical School, UM-AA
Andrew Scialli, Clinical Assistant Professor, Pathology, Medical School, UM-AA
Michael Bregman, Biomedical Engineering, College of Engineering, UM-AA, Graduate Student
Danielle Bellard, Obstetrics and Gynecology, Medical School, UM-AA, Postdoctoral Fellow

Characterization of the Hedgehog Molecular Network in Brain Tumors

Jean-Francois Rueal, Assistant Professor, Pathology, Medical School, UM-AA
Koo Inoki, Research Associate Professor, Life Sciences Institute, Associate Professor, Molecular and Integrative Physiology, Internal Medicine, Medical School, UM-AA
Sandra Casale-Piragua, Assistant Professor, Pathology, Medical School, UM-AA
Honglai Zhang, Research Laboratory Specialist Intermediate, Pathology, Medical School, UM-AA
Sarah Cote*, Pathology, Medical School, UM-AA, Undergraduate Student
Claire Peckody*, Pathology, Medical School, UM-AA, Undergraduate Student

Evaluating the role of environmental factors in childhood asthmatics in developing countries

Nancy G. Love, Professor of Environmental Engineering, College of Engineering, UM-AA
Andrew Jones, Assistant Professor, Nutritional Sciences, School of Public Health, UM-AA
Joseph Eisenberg, Professor, Epidemiology, School of Public Health, UM-AA
Kalabo Bate, Professor, Center for Nutritional Science, Addis Ababa University, Ethiopia
Adjei Dufie, Assistant Professor, Environmental Bioethics, Addis Ababa University, Ethiopia
Asangwe Grosso, Student, Addis Ababa University, Ethiopia, Institute of Water Resources
Mosera Eldredgehames, Master’s Student, Nutritional Sciences, Addis Ababa University, Ethiopia
Leon Espia, Epidemiology, School of Public Health, UM-AA
Chimney Pandit, School of Public Health, UM-AA, Graduate Student
Sonja Hegel, Epidemiology, School of Public Health, UM-AA, Graduate Student
Holle Adajuma, Civil & Environmental Engineering, College of Engineering, UM-AA, Graduate Student

Green spaces, food environments and the health of pregnant women in Mexico City

Marie Sylvie O’Neill, Professor, Environmental Health Sciences, School of Public Health, Epidemiology, UM-AA
Karen Eileen Peterson, Professor, Nutritional Sciences, School of Public Health, UM-AA
Daniel G. Brown, Professor, School for Environment and Sustainability, Research Professor, Institute for Social Research, UM-AA
Ricardo de Mejia, Database Analyst, School of Public Health, UM-AA
Graziela Monte, Statistician, School of Public Health, UM-AA
Marisol Castillón-Castrejón, Environmental Health Sciences, School of Public Health, UM-AA, Postdoctoral Fellow

HPV screening in Guatemala

Rafael Meza, Associate Professor, Epidemiology, School of Public Health, UM-AA, Graduate Student
Kristine Benavie, Health Behavior and Health Education, School of Public Health, UM-AA, Graduate Student
Audrey Murchland, Epidemiology, School of Public Health, UM-AA, Graduate Student
Anna Gottschlich, Epidemiology, School of Public Health, UM-AA, Graduate Student

Improving maternal and child health in low resource settings

Brisa Sanchez, Associate Professor, Biostatistics, School of Public Health, UM-AA
Richard B. Raud, Professor, Climate & Space Sciences & Engineering, College of Engineering, UM-AA
Thomas G. Rubin, Professor, Environmental Health Sciences, School of Public Health, UM-AA
Marie O’Neill, Associate Professor, Environmental Health Sciences and Epidemiology, School of Public Health, UM-AA
Ricardo de Mejia, Database Analyst, Health Behavior & Health Education, School of Public Health, UM-AA
Miutta Bunton, Environmental Health Sciences, School of Public Health, UM-AA, Postdoctoral Fellow

Intergenerational effects of iron deficiency, parental obesity, and drug use in Chile

Bente Latino, Research Professor, Center for Human Growth & Development, University of Michigan Office of Research, UM-AA
Jackie Goodrich, Research Assistant Professor, Environmental Health Sciences, School of Public Health, UM-AA
Jorge Delva, Professor, School of Social Work, UM-AA
Laura Artibodi Mervis, Epidemiology, School of Public Health, UM-AA, Graduate Student
Caroline Wallis, Health Behavior and Health Education, School of Public Health, UM-AA, Graduate Student
Allison Cohen, LSA: Natural Sciences, UM-AA, Undergraduate Student

Women’s and Children’s Health

Patient Decision Making and Stress Management while Undergoing in Vitro Fertilization and Intratertiary Insemination Treatments

Richard P. Barapi, Professor, Marketing, Ross School of Business, College of Pharmacy, UM-AA
Phaloke Ellison, Professor, Psychology, LSA: Social Sciences, Law School, UM-AA
David Brian Wouten, Professor, Marketing, Ross School of Business, UM-AA
Michael Latham, Assistant Professor, Obstetrics & Gynecology, Medical School, UM-AA
Melody Ka, Design Science, College of Engineering, UM-AA, Graduate Student
Lindsey Alabran, Psychology, LSA: Social Sciences, UM-AA, Undergraduate Student
Colleen Mauer Gaffney, Sociology, LSA: Social Sciences, UM-AA, Undergraduate Student
Adriana Tornam-Behrens, Biomedical Engineering, College of Engineering, UM-AA, Undergraduate Student
Jenna Manske, Chemistry, LSA: Natural Sciences, UM-AA, Undergraduate Student

Promoting physical activity among children with and without asthma in Detroit and Dearborn

Toby Lewis, Associate Professor, Pediatrics–Pulmonary Medicine, Medical School, UM-AA
Richard Dopp, Assistant Professor, Psychology, Medical School, UM-AA
Rebecca Hasson, Assistant Professor, Movement Science, School of Kinesiology, Nutrition Sciences, School of Public Health, UM-AA
Barbara Israel, Professor, Health Behavior and Health Education, School of Public Health, UM-AA
Delia Vazquez, Professor, Pediatrics–Endocrinology, Medical School, UM-AA
Graciela Mertz, Database Analyst/Programmer Savier, Health Behavior and Health Education, School of Public Health, UM-AA
Laurie Lachman, Associate Research Scientist, Health Behavior and Health Education, School of Public Health, UM-AA
Thomas Rubins, Professor, Environmental Health Sciences, School of Public Health, UM-AA
Alexa Beemer, School of Kinesiology, UM-AA, Graduate Student
Ennose Dabya, Health Behavior and Health Education, School of Public Health, UM-AA, Graduate Student

Rethinking neonatology: Technology, practice, and ethics

Scott Green, Professor, Health Management and Policy, School of Public Health, UM-AA
Joel D. Howell, Professor, Intern Medicine–General Medicine, Medical School, UM-AA
Renee Anspach, Associate Professor, Sociology, LSA: Social Sciences, UM-AA
Nusriel Lavarelth, Assistant Professor, Pediatrics, Medical School, UM-AA
Michael Muzer, Health Management and Policy, School of Public Health, UM-AA, Graduate Student
Charley Williams, Health Management and Policy, School of Public Health, UM-AA, Graduate Student

Social and environmental determinants of triple negative breast cancer in southern Thailand

Laura S. Ravez, Associate Professor, Environmental Health Sciences, School of Public Health, UM-AA
Carlos F. Mendes de Leon, Professor, Epidemiology, School of Public Health, UM-AA
Celine K. Klein, Professor, Pathology, Medical School, UM-AA
Justin A. Colacino, Assistant Professor, Environmental Health Sciences, School of Public Health, UM-AA
Judy C. Fang, Associate Professor, Pathology, Medical School, UM-AA
Katie M. Rennock, Research Laboratory Specialist Associate, Environmental Health Sciences, School of Public Health, UM-AA
Kail Deoover, Epidemiology, School of Public Health, UM-AA, Graduate Student
Ana Khazan, Environmental Health Sciences, School of Public Health, UM-AA, Graduate Student
Elizabeth Pinkerton, Epidemiology, School of Public Health, UM-AA, Graduate Student

The 2014 Enterovirus-D68 Epidemic: Clinical Outcomes and Host Gene Response

Emily Martin, Assistant Professor, Epidemiology, School of Public Health, UM-AA
Tori Stillwell, Clinical Assistant Professor, Pediatric Infectious Diseases, Medical School, Professor, Pharmacology, Medical School, UM-AA
Marc B. Herskowitz, Professor, Pediatric Communicable Diseases, Molecular and Integrative Physiology, Medical School, UM-AA
Helena Wang-Flora, Clinical Instructor, Emergency Medicine, Medical School, UM-AA
Nicole Stone, Assistant Professor, Emergency Medicine and Pediatric and Communicable Diseases, Medical School, UM-AA
Sydney Frute, Epidemiology, School of Public Health, UM-AA, Graduate Student
Hannah Segaloff, Epidemiology, School of Public Health, UM-AA, Graduate Student
Jessica Plemmons, Epidemiology, School of Public Health, UM-AA, Graduate Student

Understanding the implications of providing insurance coverage for in-vitro fertilization

Jim Dupre, Assistant Professor, Urology, Obstetrics & Gynecology, Medical School, UM-AA
Richard A. Hirth, Professor, Health Management and Policy, School of Public Health, UM-AA
Vanessa K. Dalton, New Associate Professor, Obstetrics & Gynecology, Medical School, UM-AA
Michael Latham, Assistant Professor, OB/GYN, Medical School, UM-AA
Helene Levy, Professor, Fore School of School of Public Health, UM-AA, Assistant Professor
Zach Levinson, School of Public Health, UM-AA, Graduate Student
Angela Kelley, Obstetrics and Gynecology, Medical School, UM-AA, Postdoctoral Fellow
Jessica Dzuric, Gender and Health, LSA: Social Sciences, UM-AA, Undergraduate Student
Madeline: An Innovative Pedigree Drawing App for Mobile Device
Julia Richards, Professor, Ophthalmology & Visual Sciences, Medical School, Epidemiology, School of Public Health, UM- AA
Brenda Lynn Bohanack, Assistant Professor, Ophthalmology & Visual Sciences, Medical School, UM-AA
Jennifer Ann Smith, Research Assistant Professor, Epidemiology, School of Public Health, UM-AA

Kari Broshman, Genetics Counselor, Ophthalmology and Visual Sciences, Medical School, UM-AA
Dana Schlegel, Genetic Counselor, Ophthalmology and Visual Sciences, Medical School, UM-AA
Laurel Winsiek-Buesser, Research Technician Intermediate, Ophthalmology and Visual Sciences, Medical School, UM-AA
Joshua Ehrlich, Ophthalmology and Visual Sciences, Medical School, UM- AA, Post-Doctoral Fellow
Hayder al Hassan, Epidemiology, School of Public Health, UM-AA, Graduate Student

Massive human single-cell transcriptome analysis of diseased kidney tissue applying droplet microfluidic technology (Drop-Seq)
Edgar A. Otto, Associate Research Scientist, Internal Medicine-Nephrology, Medical School, UM-AA
Matthew Krueger, Professor, Internal Medicine, Medical School, Research Professor, Computational Medicine and Bioinformatics, Medical School, UM-AA
Hyun Min Kang, Associate Professor, Biostatistics, School of Public Health, UM-AA

Fluorescence imaging and single cell RNA sequencing
Dawson Cai, Assistant Professor, Cell and Developmental Biology, Medical School, UM-AA
Katsutoshi Akaishi, Professor, Mechanical Engineering, College of Engineering, UM-AA
Maureen Satter, Associate Professor, Computational Medicine and Bioinformatics, Medical School, Biostatistics, School of Public Health, UM-AA
Yu Li, Cell and Developmental Biology, Medical School, UM-AA, Graduate Student
Daniel Nunez, Cell and Developmental Biology, Medical School, UM-AA, Postdoctoral Fellow
Ming Tong Chang, Mechanical Engineering, College of Engineering, UM-AA, Graduate Student
Christopher Lee, Department of Computational Medicine & Bioinformatics, Medical School, UM-AA, Graduate Student

Regulating Development and Disease with Transcriptional Enhancers
Scott Barela, Associate Professor, Cell & Developmental Biology, Medical School, UM-AA
Kenneth Cadigan, Professor, Molecular, Cellular, and Developmental Biology, LSA: Natural Sciences, UM-AA
Marc Peters-Golden, Professor, Internal Medicine-Pulmonary and Critical Care, Medical School, UM-AA

The Functional Overlap of SEC23 paralogs and the Pathophylliology of Congenital Dyserythropoietic Anaemia Type II
Ramkumar, Assistant Professor, Internal Medicine-Nephrology/Dialysis, Cellular & Molecular Biology, Medical School, UM-AA
Joshua Elmore, Research Assistant Professor, Pediatrics and Communicable Diseases, Medical School, UM-AA
Daniel Klessig, Professor, Life Sciences Institute, UM-AA
Annie Bernard, Life Sciences Institute, UM-AA, Postdoctoral Fellow
Zhuang Xu*, LSA: Natural Sciences, UM- AA, Undergraduate Student
Angela Wayland, Pediatrics, Medical School, UM- AA, Postdoctoral Fellow
Alexandra Stapleton, LSA: Natural Sciences, UM-AA, Undergraduate Student

The role of environmental toxins on natural killer cell polarization in ALS
Stephan Aaron Gutman, Clinical Assistant Professor, Neurology, Medical School, UM-AA
Stuart Arthur Batterson, Professor, Environmental Health Sciences, School of Public Health, UM-AA
Ben Marodge, Research Investigator, Neurology, Medical School, UM-AA
Feng-Chiao Su, Environmental Health Sciences, School of Public Health, UM-AA, Undergraduate Student
Kristen Rase, Neurology, Medical School, UM-AA, Undergraduate Student

The Role of Ion Channels in HIV Pathogenesis
Lori Isom, Professor, Pharmacology, Medical School, UM-AA
David Mackenzie, Professor, Internal Medicine-Infectious Diseases, Medical School, UM-AA
Haining Xu, Associate Professor, Molecular Cellular, and Developmental Biology, LSA: Natural Sciences, UM-AA
Lois Lepo-Santiago, Assistant Research Scientist, Pharmacology, Medical School, UM-AA
Evelyn Coevs Datsum, Internal Medicine, Medical School, UM-AA, Graduate Student
Jesse Winters, Pharmacology, Medical School, UM-AA, Graduate Student

Characterizing charge carrier transport in gallium oxide
Brock Peterson, Assistant Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Capilayan Karadag, Professor, Physics, LSA: Natural Sciences, UM-AA
Jawin D. Phillips, Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
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Alexa Rakoski, Physics, LSA: Natural Sciences, UM- AA, Graduate Student
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Coherent Spectroscopy of Transition Metal Dichalcogenides
Stevan Thomas Cupidell, Professor, Physics, LSA: Natural Sciences, UM-AA
Zielas Mt, Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
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Ben Giordias, Physics, LSA: Natural Sciences, UM-AA, Graduate Student
David Layton, Electrical Engineering & Computer Science, College of Engineering, UM-AA

Different geometry in complex systems
Kai Dai, Assistant Professor, Physics, LSA: Natural Sciences, UM-AA
Li Lu, Assistant Professor, Physics, LSA: Natural Sciences, UM-AA
Jin Zhang, Professor, Psychology, LSA: Social Sciences, UM-AA
Tomeyya Aolwa, Physics, LSA: Natural Sciences, UM-AA, Graduate Student
Heqiu Li, Physics, LSA: Natural Sciences, UM-AA, Graduate Student
Loyang Zhang, Physics, LSA: Natural Sciences, UM-AA, Graduate Student
Dominic Millett*, UM- AA, Undergraduate Student

Feature detection in real and synthetic astrophysical surveys
August Evers, Professor, Physics, LSA: Natural Sciences, UM-AA
Chris Miller, Associate Professor, Astronomy, LSA: Natural Sciences, UM-AA
Clayton Stahl, Associate Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA

From physical principles to Hamiltonian and Lagrangian dynamics
Christine Alida, Associate Professor, Physics, LSA: Natural Sciences, UM-AA
Lydia Bien, Associate Professor, Mathematics, LSA: Natural Sciences, UM-AA
David John Baker, Associate Professor, Philosophy, LSA: Humanities, UM-AA
Guilherme Carneiro, Research Area Specialist Senior, Physics, LSA: Natural Sciences, UM-AA
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Mark Greenfield, Mathematics, LSA: Natural Sciences, UM-AA, Graduate Student
Joshua Hunt, Philosophy, LSA: Humanities, UM-AA, Graduate Student
Pavel Okun, Physics, LSA: Natural Sciences, UM-AA, Undergraduate Student
Alan Phillips, Physics, Mathematics, LSA: Natural Sciences, UM-AA, Undergraduate Student
Tyler Ulrick, Physics, LSA: Natural Sciences, UM-AA, Undergraduate Student
Isaac Monney, Physics, LSA: Natural Sciences, UM-AA, Undergraduate Student

From Semiconductor heterostructures and alloys to strongly correlated oxide materials
Emmanuel Goll, Assistant Professor, Physics, LSA: Natural Sciences, UM-AA
Dominko Zgid, Assistant Professor, Chemistry, LSA: Natural Sciences, UM-AA
Emmanuel Kiospap, Associate Professor, Materials Science & Engineering, College of Engineering, UM-AA

Laser Machined Metamaterials for Novel Sub-Millimeter Optical Elements
Jeff McLellan, Associate Professor, Physics, LSA: Natural Sciences, UM-AA
Anthony Griks, Associate Professor, Electrical Engineering & Computer Science, College of Engineering, UM-AA
Jiye McLamore, Professor, Mechanical Engineering, College of Engineering, Professor, Materials Science & Engineering, College of Engineering, UM-AA

Low temperature catalysis
Salvo Lanzis, Associate Professor, Chemical Engineering, College of Engineering, UM-AA
Mark A. Bartsch, Professor, Energy Institute, University of Michigan Office of Research, UM-AA
Melanie S. Sanford, Professor, Chemistry, LSA: Natural Sciences, UM-AA
The following projects were funded through the generosity of alumni experts to lead their project, and receive compelling updates about project, interact with the University of Michigan to identify faculty sustainability to social justice. Funders set the parameters for each opportunity for donors to invest in research projects that align with the university’s strategic priorities.

**MCubed Diamond Program**

The MCubed Diamond Program provides an unprecedented opportunity for donors to invest in research projects that align exactly with their interests, from global health to education, and sustainability to social justice. Funders set the parameters for each project, interact with the University of Michigan to identify faculty experts to lead their project, and receive compelling updates about the work of the team through the MCubed website.

The following projects were funded through the generosity of alumni donors, company sponsors, and foundations:

**243 Quantum Thermodynamics**

Yanyun Shi, Associate Professor, Electrical Engineering & Computer Science, College of Engineering, UM-Ann Arbor

Hui Deng, Associate Professor, Physics, LSA: Natural Sciences, UM-Ann Arbor

Kim A. W. Winick, Professor, Electrical Engineering & Computer Science, College of Engineering, UM-Ann Arbor

Tyler Hill, Physics, LSA: Natural Sciences, UM-Ann Arbor, Graduate Student

Rahul Gupta, Applied Physics, LSA: Natural Sciences, UM-Ann Arbor, Graduate Student

Jian Wang, Electrical Engineering, College of Engineering, UM-Ann Arbor, Graduate Student

**Towards using time-resolved optical spectroscopy to probe interfacial charge transfer dynamics in organic photovoltaic materials**

Ethan Gove, Professor, Chemistry, LSA: Natural Sciences, UM-Ann Arbor

Jennifer Ogilvie, Associate Professor, Physics, LSA: Natural Sciences, UM-Ann Arbor

Stephen Forrest, Professor, Electrical Engineering & Computer Science, College of Engineering, UM-Ann Arbor

**244 Big Data Challenge 4: Geospatial analysis of Using Industrial Symbiosis Concepts to Reduce Satellite footprints**

Benjamin Bray, LSA: Natural Sciences, UM-Ann Arbor, Undergraduate Student

**245 Cleaning Silicons from Stainless Steel**

Generously funded by Proctor & Gamble

Zhou Chen, Professor, Chemistry, LSA: Natural Sciences, Macromolecular Science and Engineering, College of Engineering, UM-Ann Arbor

Jie Xu, Professor, Physics, LSA: Natural Sciences, UM-Ann Arbor

Hao Huang, Chemistry, LSA: Natural Sciences, UM-Ann Arbor, Graduate Student

Ryan Dedmon, Chemistry, LSA: Natural Sciences, UM-Ann Arbor, Graduate Student

Ranjan Kumar, Chemical Engineering, College of Engineering, UM-Ann Arbor, Graduate Student

**246 Defining Innovative Sustainable Solutions for Film-Based Packages**

Generously funded by Proctor & Gamble

Ming Xu, Associate Professor, School for Environment and Sustainability, Civil & Environmental Engineering, College of Engineering, UM-Ann Arbor

Christian M. Lasterick, Associate Professor, Civil & Environmental Engineering, College of Engineering, UM-Ann Arbor

Shelba Miller, Associate Professor, School for Environment and Sustainability, UM-Ann Arbor

Yilan Xu, School for Environment and Sustainability, UM-Ann Arbor, Graduate Student

Ping Hou, School for Environment and Sustainability, UM-Ann Arbor, Graduate Student

**247 Developing Big Data to Studies of the Epigenetics of Gender and Addiction**

Generously funded by Alfred P. Sloan and Gordon and Betty Moore Foundations

Jill Becker, Professor, Psychology, LSA: Social Science, UM-Ann Arbor

Beth Glover, Associate Professor, Social Work and Women’s Studies, School of Social Work, UM-Ann Arbor

Michelle Mckinney, Assistant Professor, History, LSA: Humanities, UM-Ann Arbor

Robert Zackow, Professor, Psychiatry, Medical School, UM-Ann Arbor

Mary Heitze, Associate Professor, Psychiatry, Medical School, UM-Ann Arbor

Katia Yeates, Psychology, LSA: Social Sciences, UM-Ann Arbor, Graduate Student

Pia Li, Biostatistics, School of Public Health, UM-Ann Arbor, Graduate Student

Kathryn Watson, History, LSA: Humanities, UM-Ann Arbor, Graduate Student

**248 Quantum Thermodynamics**

Yanyun Shi, Associate Professor, Electrical Engineering & Computer Science, College of Engineering, UM-Ann Arbor

**249 Digital Solutions for High Frequency Hearing Loss— “Hearables”**

Generously funded by Arthur Marks and Nancy Casey

Gabriel Corlas, Professor, Otoneurology, Medical School, UM-Ann Arbor

Jochen Schalke, Professor, Otoneurology, Medical School, UM-Ann Arbor

Laniee Shaw, Professor and Department Chair, Biomedical Engineering, College of Engineering, UM-Ann Arbor

**248 Measuring the Pace of Neighborhood Change from Satellites**

Generously funded by Alfred P. Sloan and Gordon and Betty Moore Foundations

Daniel G. Brown, Professor, School for Environment and Sustainability, Research Professor, Institute for Social Research, UM-Ann Arbor

Christopher Ruf, Professor, Climate & Space Sciences & Engineering, Electrical Engineering, College of Engineering, UM-Ann Arbor

Elizabeth Bruch, Associate Professor, Sociology, Complex Systems, LSA: Social Sciences, UM-Ann Arbor

Jeff Moors, Professor, Sociology, LSA: Social Sciences, UM-Ann Arbor

Arthur Endsley, Environment and Sustainability, School for Environment and Sustainability, UM-Ann Arbor, Graduate Student

**250 Ontology-based Big Data Integration and Analysis of Biological Interaction Networks**

Generously funded by Alfred P. Sloan and Gordon and Betty Moore Foundations

Younghi He, Associate Professor, Microbiology and Immunology, LSA: Natural Sciences, UM-Ann Arbor

Alfred Hero, Professor, Electrical Engineering & Computer Science, Biomedical Engineering, College of Engineering, Professor, Statistics, LSA: Natural Sciences, UM-Ann Arbor

Fan Meng, Research Associate Professor, Psychiatry, Medical School, UM-Ann Arbor

**249 Developing an interactive tool for maternal and child health care monitoring and routine assessment to be used by iKure community health workers: A feasibility study**

Generously funded by the Dahan Family Foundation

Bhavna Malhotra, Professor, Biostatistics, Epidemiology, School of Public Health, UM-Ann Arbor

Joyeet Pal, Assistant Professor, School of Information, UM-Ann Arbor

Sujatha Joshi, Associate Professor, Pediatric Neurology, Medical School, UM-Ann Arbor

**250 Using Industrial Symbiosis Concepts to Reduce Flexible Packaging Flow to Landfill in Developing Countries**

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Jose Alfaro, Clinical Assistant Professor, School for Environment and Sustainability, UM-Ann Arbor

Arvin Anwar, Professor, Mechanical Engineering, College of Engineering, UM-Ann Arbor

Chhikar Dhindsa, Associate Professor, Mechanical Engineering, College of Engineering, UM-Ann Arbor

Stefania Almassan, School for Environment and Sustainability, UM-Ann Arbor, Graduate Student

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Stefania Almassan, School for Environment and Sustainability, UM-Ann Arbor, Graduate Student

Mark Green, Erb Institute, Ross School of Business, UM-Ann Arbor, Graduate Student

Brinda Vellapall, Civil & Environmental Engineering, College of Engineering, UM-Ann Arbor, Undergraduate Student
Overview of MCubed Symposium Venues

Michigan League – Floor 2

Poster Session

• Welcome
• Keynote Address
• MCubed Difference

• Poster Session and Hands-on Demonstrations
• Hors d’Oeuvres Reception

• Data, Informatics, Networks, Social Media
• Pharma and Drug Delivery
• Transportation and Mobility
• Women’s and Children’s Health

• Arts, Culture, History, Language
• Brain Function, Human Behavior, and Mental Health
• Cancer
• Cells, Molecules, Biosciences
• Environmental Science and Sustainability
• Education and Academic Innovation
• The Human Body
• Hands-on Demonstrations

• Disease
• Genetics, DNA, RNA
• Mathematical and Physical Sciences
• MCubed Diamond Program

• 3D Technology
• Business, Policy, and Decision-making
• Diversity, Equity, and Inclusion
• Medical Technology and Treatments
MCubed, part of the University of Michigan’s Third Century Initiative, and housed in the University of Michigan Office of Research (UMOR), gratefully honors the invaluable contributions of the following:

2017 Symposium Keynote Speaker
Dr. Francis Collins, Director of the National Institutes of Health

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MCubed 1.0 (years 2012-2014)

In 2012, MCubed launched its inaugural cycle, with generous funding from the U-M Provost’s Office, Rackham Graduate School, all U-M schools/colleges, and faculty collaborators. A total of 222 “cubes” (teams of three faculty collaborators from at least two units) formed and were each awarded $60,000 to conduct interdisciplinary research and scholarship. This cycle closed on December 31, 2014. To date, cubes formed in MCubed 1.0 have achieved over $60M in follow-on funding, 120 publications, and many artistic products, invention reports, and company launches.

MCubed 2.0 (years 2015-2017)

The second cycle of MCubed, which today’s symposium celebrates, was funded by the U-M Provost’s Office, all U-M schools/colleges, and faculty collaborators. Each cube received $15,000 or $60,000, depending on the level of funding it requested. MCubed 2.0 has triggered the formation of 254 cubes, which have so far secured nearly $34M in follow-on funding, accomplished 105 publications, and attained numerous scholarly products, ahead of the closing date of December 31, 2017.

MCubed 3.0 (years 2018-2020)

MCubed will next distribute cubes in the fall of 2018!

MCubed Diamond Program

The MCubed Diamond Program enables donors, companies, and foundations to invest in research projects that align exactly with their interests. Funders set the parameters for each project, interact with the University of Michigan to identify faculty experts to lead the research team, and receive compelling updates about the cube’s work through the MCubed website.

MCubed for Students

Every cube team uses at least 50% of its funding to mentor and support the next generation of researchers and scholars, including undergraduate students, graduate students, and postdoctoral fellows. In addition, MCubed has launched two student initiatives in 2017:

MCubed Scholars Program

In partnership with the University of Michigan Office of Research (UMOR) and the Undergraduate Research Opportunities Program (UROP), MCubed provided interdisciplinary research internships for undergraduate students. In the summer of 2017, 50 undergraduate students from the U-M Ann Arbor and Dearborn campuses were funded to work on over 30 cubes.

Rackham Summer Award

Rackham Graduate School invited its students to apply for summer funding for research, scholarly, or creative work with MCubed faculty mentors. During the spring/summer of 2017, 25 graduate students each received an $8,000 fellowship stipend for their work on cube teams.

Learn more about MCubed at mcubed.umich.edu, or contact us at MCubedInfo@umich.edu.