






NORTHEASTERN UNIVERSITY'S
ADVANCE OFFICE OF FACULTY
DEVELOPMENT PRESENTS

NEW ENGLAND FUTURE FACULTY WORKSHOP

JULY 30, 2020
8 A.M. TO 5 P.M.
VIA ZOOM





SPEAKERS



JOHN ARMENDARIZ

VICE PROVOST FOR INSTITUTIONAL DIVERSITY & INCLUSION,
NORTHEASTERN UNIVERSITY

Dr. Armendariz currently serves as Northeastern University's Vice Provost of Institutional Diversity & Inclusion. With experience in government, healthcare, nonprofit, and higher education, Dr. Armendariz brings a deep knowledge of working within an organization to engage stakeholders and enhance a culture that welcomes and includes a diversity of backgrounds and perspectives. Prior to joining Northeastern, he served as Associate Director of the Office of Diversity and Inclusion at Yale University, where he directed diversity programming aimed at creating an organizational culture of inclusion and consulted with senior leadership and academic departments to advance and align diversity efforts. He has also worked in diversity leadership roles at Planned Parenthood Federation of America, the University of Texas M.D. Anderson Cancer Center, and the Texas Department of Health.



PENNY BEUNING

PROFESSOR OF CHEMISTRY AND CHEMICAL BIOLOGY, NORTHEASTERN
UNIVERSITY

Dr. Beuning's research on DNA damage tolerance and protein engineering has been recognized with a Cottrell Scholar award, an NSF CAREER award, an American Cancer Society Research Scholar Grant, and the 2015 Chemical Research in Toxicology Young Investigator award. Dr. Beuning has been active in efforts to enhance the recruitment and retention of groups traditionally underrepresented in the sciences. She is a Councilor for the American Chemical Society, serves on the ACS Committee on Economic and Professional Affairs, and is on the Scientific Advisory Committee of Research Corporation for Science Advancement.





THANDI BUTHELEZI


PROFESSOR OF CHEMISTRY, WHEATON COLLEGE

Dr. Buthelezi's research interests are in the area of host-guest chemistry and toxic metal ion sensors in aqueous media. She has mentored over 100 undergraduate students in undergraduate research, co-authored over 20 peer-reviewed articles published in several journals, including the Journal of Physical Chemistry and Chemical Physics Letters. Dr. Buthelezi has received research funding from the ACS-PRF and the National Science Foundation (NSF). In addition to being a member of the National Assessment of Educational Progress (NAEP) Science Standing Committee (2008-2016), she has served as the chair of the Chemistry department at Wheaton College (2016-2019). She continues to serve as a reviewer and panelist for the NSF. She volunteers as a judge for the Massachusetts Science & Engineering fair. Dr. Buthelezi is the current chair-elect for the Central Massachusetts local section of the American Chemical Society, CMSACS.

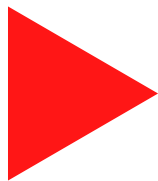


CAITLYN BUTLER

ASSOCIATE PROFESSOR OF CIVIL AND ENVIRONMENTAL ENGINEERING,
UNIVERSITY OF MASSACHUSETTS AMHERST



Dr. Butler's research focuses on wastewater treatment, emphasizing the use of biofilms systems in remediating environmental contaminants. She received a highly competitive NSF CAREER award for early career faculty for a novel approach to wastewater treatment using granular biofilms. She has also received grants from the Bill and Melinda Gates Foundation to develop the Microbial Fuel Cell Latrine that directly converts human waste into compost and electricity. Through collaborations, Dr. Butler has also pursued research supported by the Department of Energy, Air Force SBIR program, and Environmental Protection Agency.



SARAH DELANEY

PROFESSOR OF CHEMISTRY AND DIRECTOR OF GRADUATE STUDIES,
BROWN UNIVERSITY

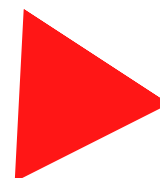
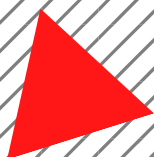
Research at Dr. Delaney's laboratory is focused on establishing a chemically logical roadmap to understand how DNA damage relates to genetic change and human disease. In recognition of her research accomplishments she was awarded an Outstanding New Environmental Scientist (ONES) Award from NIH/NIEHS. Attesting to her skills and commitment to mentoring and training the next generation of scientists, Dr. Delaney was awarded the Philip J. Bray Award for Excellence in Teaching in the Physical Sciences from Brown University (2011) and the Brown University Graduate Student Mentoring and Advising Award (2020). In addition to researching the biochemistry of DNA damage she has an interest in cooking and how chemistry influences food. She teaches Organic Chemistry, Chemical Biology, and a broad interest course titled Kitchen Chemistry.



CARLOS HIDROVO

ASSOCIATE PROFESSOR OF MECHANICAL AND INDUSTRIAL
ENGINEERING, NORTHEASTERN UNIVERSITY

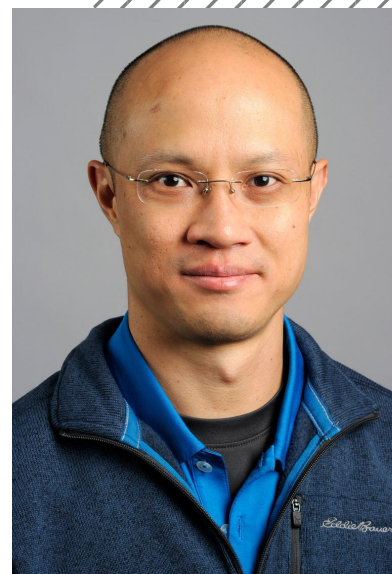
Dr. Hidrovo's research interests lie at the intersection of multiscale and multiphase flow and transport phenomena, surface tension interactions in micro/nanoengineered structures, and electrokinetic ion transport in porous media for applications in energy storage, portable biochemical diagnostics, thermal management, and water treatment systems. He is also actively involved in developing novel imaging and diagnostic tools in these areas. Dr. Hidrovo is the recipient of an NSF CAREER Award from the Fluid Dynamics program, a DARPA Young Faculty Award from the Microsystems Technology Office (MTO), and an ASME Robert T. Knapp Award.



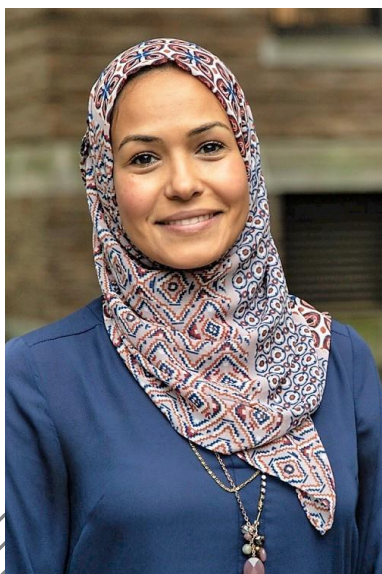
**FRANCISCO HUNG**

ASSOCIATE PROFESSOR OF CHEMICAL ENGINEERING, NORTHEASTERN UNIVERSITY

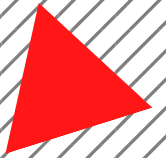
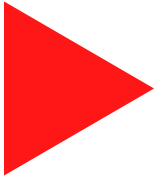
Dr. Hung's research program is focused on investigating different systems involving mixtures and interfaces using molecular simulation. Current research interests in his group include ionic liquids and deep eutectic solvents, nanoporous materials, organics in environmental interfaces, crystal nucleation, and nano/bio-materials. His research is relevant to applications in separations, energy storage, advanced materials, and environmental chemistry. His honors include the CAREER Award from the National Science Foundation in 2013, the Louisiana State University Rainmaker Emerging Scholar Award in 2014, and the Richard Sioui Award for Excellence in Teaching in Chemical Engineering at Northeastern University in 2018.

**MARIAM ISMAIL**

ASSISTANT PROFESSOR OF CHEMISTRY AND PHYSICS, SIMMONS UNIVERSITY



Dr. Ismail's research is focused primarily on synthesizing visible light active photocatalysts that can be used for degradation of harmful organic compounds and conversion of greenhouse gases, such as carbon dioxide. The goal of her research group at Simmons is to promote sustainable pathways to address energy and environmental problems using visible light photocatalysis, while providing a creative, responsible, interdisciplinary research and teaching laboratory grounded in inorganic chemistry, materials science, and chemical engineering. Dr. Ismail has co-authored over 15 peer-reviewed articles. She has received several awards, including the 2020 ACS CIBA/YCC travel award and the 2019 Professor of the Year award.



SWATHI KIRAN

JAMES AND CECILIA TSE YING PROFESSOR OF NEUROREHABILITATION,
ASSOCIATE DEAN FOR RESEARCH, SPEECH, LANGUAGE, AND HEARING
SCIENCES, BOSTON UNIVERSITY

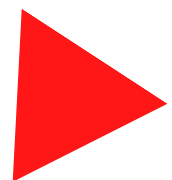
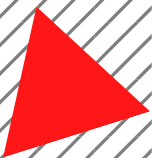
Dr. Kiran's research interests focus around lexical semantic treatment for individuals with aphasia, bilingual aphasia and neuroimaging of brain plasticity after a stroke. She has over 100 peer-reviewed papers and has appeared in journals such as Brain and Language, Aphasiology, Journal of Speech Language, and Hearing and Cortex. Her work is funded by the National Institutes of Health.

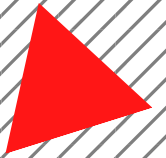
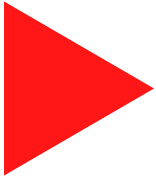


MICHELLE KOVARIK

ASSISTANT PROFESSOR OF CHEMISTRY, TRINITY COLLEGE

Dr. Kovarik is a bioanalytical chemist with particular interests in microfluidics, single-cell assays, and cellular responses to stress. After a SPIRE postdoctoral appointment at the University of North Carolina, she began a tenure-track position at Trinity College, an undergraduate liberal arts college in Hartford, CT. In addition to her laboratory research, she also makes professional contributions in the area of chemistry education.





LEE MAKOWSKI

PROFESSOR AND CHAIR OF BIOENGINEERING, AND CHEMISTRY & CHEMICAL BIOLOGY, NORTHEASTERN UNIVERSITY

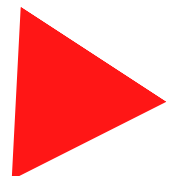
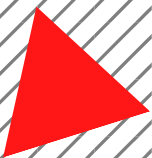
Dr. Makowski's research interests focus on the molecular basis of biological processes. In 2010, he moved from Argonne National Laboratory, where he was a Biosciences Division Director and Senior Scientist, to Northeastern University, where he accepted a joint appointment in Electrical and Computer Engineering, and Chemistry and Chemical Biology. In January 2014, Dr. Makowski was appointed Interim Chair of the new established Department of Bioengineering and became chair in September 2015.



MARILYN MINUS

PROFESSOR AND CHAIR OF MECHANICAL AND INDUSTRIAL ENGINEERING, NORTHEASTERN UNIVERSITY; DIRECTOR, MACROMOLECULAR INNOVATION IN NANO-MATERIALS UTILIZING SYSTEMS LABORATORY (MINUS-LAB)

Dr. Minus' research is focused on addressing sustainability issues with the goal of producing energy efficient lightweight materials. The fundamental aim for Dr. Minus' research is to understand phenomena associated with polymer/nano-filler structural development in the composites during processing procedures. Both technical and education research work in the MINUS lab has been supported by ~\$9M in funding to date from agencies including NSF, AFOSR, ARO, and DARPA. Dr. Minus has published more than 40 scientific publications and presented over 30 conference papers in the area of polymer-based nano-composites. She is also the recipient of the NSF CAREER award.





TOYOKO ORIMOTO

ASSOCIATE PROFESSOR OF PHYSICS, NORTHEASTERN UNIVERSITY

Dr. Orimoto is an experimental particle physicist conducting research with the CMS Experiment at the Large Hadron Collider at the CERN laboratory in Geneva, Switzerland. Prior to joining the Northeastern faculty, Dr. Orimoto was a fellow at CERN (2009-2012) and the Robert A. Millikan fellow at the California Institute of Technology (2006-2009). She completed her graduate studies (PhD 2006) and undergraduate studies (BA 2000) in physics at the University of California, Berkeley.



YADILETTE RIVERA-COLÓN

ASSISTANT PROFESSOR OF BIOLOGY, BAY PATH UNIVERSITY

Dr. Rivera-Colón is a researcher and educator who found her calling working in research laboratories. Most importantly, her career has been shaped by her passion for teaching. In her words, "I am a rebel teacher." A native of Puerto Rico and a first-generation college graduate, Dr. Rivera-Colón has a strong personal drive to connect with Latinas and other underserved populations to share her love of science. On any given day Dr. Rivera-Colón can be found in one of the labs at Bay Path helping students with their research projects, teaching a class in biochemistry, or visiting Holyoke Public Schools to open students there to the wonders of the scientific world. As many of her students would attest, her enthusiasm is infectious, and she is committed to her personal mission: train the next generation of women scientists.





CAROLYN RUPPEL

PROJECT CHIEF, U.S. GEOLOGICAL SURVEY GAS HYDRATES PROJECT,
WOODS HOLE OCEANOGRAPHIC INSTITUTION

Since 2010, Dr. Ruppel has led numerous oceanographic expeditions in the Arctic Ocean and on the U.S. Atlantic margin.

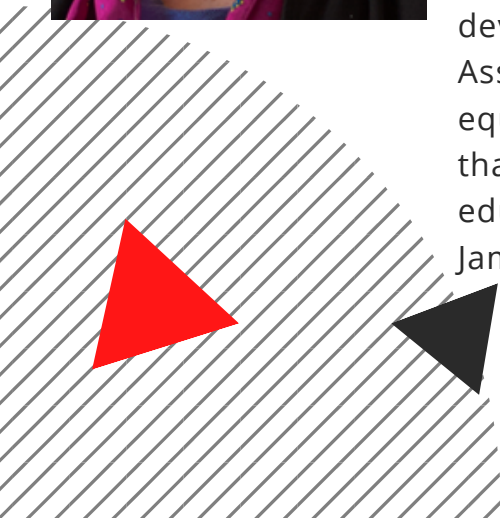
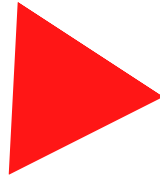

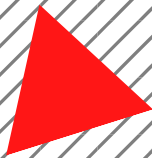
She has been a member of the U.S. Arctic Icebreaking Coordinating Committee; working groups for the White House Office of Science and Technology Policy; the expert Advisory Board for Centre of Excellence in Tromso, Norway; the U.S. Department of Energy's Federal Advisory Committee for the Methane Hydrates R&D Program; and several editorial boards. Dr. Ruppel has also testified to National Research Council panels, founded the Gordon Research Conference in gas hydrates, and is a Fellow of the Geological Society of America. She is author/co-author of more than 70 peer-reviewed articles and has engaged in substantial public outreach and mentorship.



HAZEL SIVE

DEAN OF THE COLLEGE OF SCIENCE, NORTHEASTERN UNIVERSITY

Dr. Sive is Dean of the College of Science at Northeastern University. Prior, she was Professor of Biology at MIT, Member of the Whitehead Institute for Biomedical Research and Associate Member of the Broad Institute. A native of South Africa, she received the B.Sc. in Chemistry and Zoology, from University of Witwatersrand, Johannesburg, South Africa; and the Ph.D. from Rockefeller University, New York. Her groundbreaking research focuses on neurodevelopmental disorders, as well as fundamental processes underlying brain and craniofacial development. An accomplished leader and innovator, Dr. Sive was Associate Dean of MIT Science with oversight for education and equity. She was Founding Director of the MIT- Africa Initiative, that promotes mutually beneficial engagements in research, education and innovation; and Founding Director of the MIT Jameel World Higher Education Lab.





AMANDA WOERMAN

ASSISTANT PROFESSOR OF BIOLOGY, UNIVERSITY OF MASSACHUSETTS
AMHERST

Dr. Woerman, under the direction of Dr. David Mendelowitz, designed the first animal model of perinatal exposure to the air pollutant sulfur dioxide and identified the mechanism by which it produces tachycardia and cardiovascular disease. In 2013, Dr.

Woerman joined Dr. Stanlet Pruisner's lab at University of California San Francisco as a postdoctoral fellow with an interest in studying chronic traumatic encephalopathy. Dr. Woerman developed cellular assays for characterizing tau and α -synuclein prions in human diseases, and employed these models to investigate the role of prion strains in neurodegenerative disease. Her lab is currently investigating tau and α -synuclein prion strain biology and pathogenesis.

