

AIMBE

Your Public Policy **Advocate**

BRINGING YOUR ISSUES TO THE
FOREFRONT OF CONGRESS

Driving the **Conversation**

HELPING SET THE AGENDA
ONE FUNDING AGENCY AT A TIME

Bringing **Recognition**

TO YOUR WORK FROM POLICY LEADERS

ANNUAL REPORT

AMERICAN INSTITUTE FOR MEDICAL AND BIOLOGICAL ENGINEERING

AIMBE

Advocate for Progress

BOOSTING CONGRESSIONAL SUPPORT FOR YOUR WORK



AIMBE BRINGS HEALTH AI EXPERTS TO CONGRESS

AIMBE hosted an Congressional Lunch Briefing for legislative staffers on *AI to Improve Health Care*. The briefing focused on the risks, opportunities, and challenges of Medical AI. Speakers included AIMBE Fellows, Dr. Regina Barzilay (MIT) and Dr. Parisa Rashidi (University of Florida). Dr.'s. Barzilay and Rashidi also participated in individual meetings with their Senate and Member offices to dive deeper into the issues raised during the briefing.



AIMBE URGES CMS TO EXPLORE NEW REIMBURSEMENT FRAMEWORKS FOR HEALTH AI

AIMBE urges the Centers for Medicare and Medicaid Services (CMS) to explore new reimbursement frameworks for Health AI in a letter developed by AIMBE and signed by a number of science and health professional organizations. AIMBE's first sign-on letter emphasizes that Health AI has the potential to positively transform health care in the United States, but only to the extent its applications are deployed and utilized in clinical settings. Despite Health AI providing cost-effective tools and being a rapidly growing area of biomedical research, its applications are severely underutilized in clinical care settings. This gap will continue to widen without robust reimbursement pathways. As a key stakeholder in health care in the United States, AIMBE calls on CMS to address the critical bottleneck between health AI innovation and it's use to directly improve patient health care.



BRINGING YOUR RESEARCH TO THE NATION'S FOREFRONT

AIMBE ADVOCATES FOR BREAKTHROUGH KIDNEY INNOVATION



AIMBE participated in a Science Exhibition in the U.S. House of Representatives where we highlighted the KidneyX program, a public-private partnership between the Dept. of Health and Human Services (HHS) and the American Society of Nephrology (ASN) designed to spur private sector innovation in kidney disease treatments. AIMBE Fellow Dr. Shuvo Roy, University of California, San Francisco, demonstrated his KidneyX-funded work on the artificial kidney. This congressional event allowed Members of Congress and their staff to learn about emerging technologies in the life sciences sector supported by federal funding. Dr. Roy met individually with his delegation and co-chairs of the Congressional Kidney Caucus.

AIMBE PFAS SECTION

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ADVOCATING FOR ISSUES THAT MATTER TO YOU

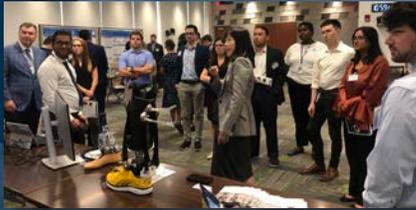
AIMBE

Advocate for Research

SHOWCASING MEDICAL AND BIOLOGICAL ENGINEERING TO CONGRESS

AIMBE HOSTS NIH TOUR FOR CONGRESS

AIMBE hosted its 5th Congressional tour of the National Institutes of Health (NIH), providing legislative staff with a look inside the National Institute of Biomedical Imaging and Bioengineering (NIBIB). Nearly 30 legislative aides to Members of Congress witnessed cutting-edge bioengineering technologies first-hand. NIBIB Director and AIMBE Fellow Bruce Tromberg provided opening remarks and visited with legislative staffers to explain the importance of NIBIB.



Dr. Huang describes how their technology can help to restore balance and stability among amputees.



Dr. Hammer explains Optical Coherence Tomography for a congressional aide during a live demonstration.

Selected health technology demonstrations by AIMBE Fellows:

Wilbur Lam, MD, PhD, Emory University / Georgia Tech: Smartphone App for Non-invasive Hemoglobin Level Measurement; Rapid Acceleration of Diagnostics (RADx®) Tech Test Validation Core

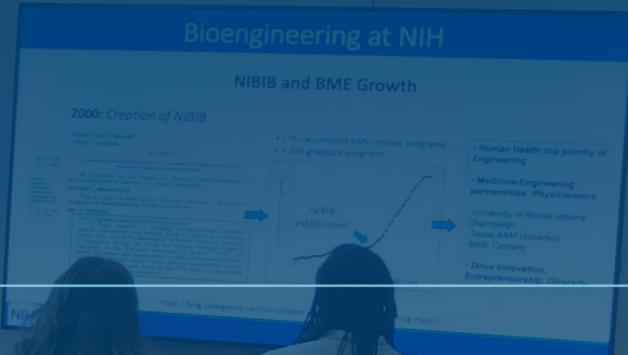
Daniel X. Hammer, PhD, U.S. Food and Drug Administration (FDA): Optical Imaging and Diagnostic Phantom Development

He (Helen) Huang, PhD, North Carolina State University / University of North Carolina at Chapel Hill: Robotic Prosthetics for Improved Balance and Postural Stability

Manu Platt, PhD, National Institute for Biomedical Imaging and Bioengineering (NIBIB): Center for Biomedical Engineering Technology Acceleration (BETA Center)

DEMONSTRATING YOUR MBE HEALTH TECHNOLOGIES

10:19



AN EXPONENTIAL RETURN ON INVESTMENT

\$1 NIH FUNDED RESEARCH

=

\$2.64 NEW ECONOMIC ACTIVITY GENERATED FY2022

NIH RESEARCH SUPPORTS JOBS

568,585 TOTAL JOBS SUPPORTED FY2022

- 42** states with **1,000+** jobs
- 26** states with **5,000+** jobs
- 16** states with **10,000+** jobs

A Strong NIH is a National Priority

Compared to 2015, increases to the NIH budget in 2022 resulted in

\$13.86B MORE GRANT FUNDING

\$36.13B MORE ECONOMIC ACTIVITY

NIH RESEARCH FUELS THE ECONOMY

\$96.84B IN NEW ECONOMIC ACTIVITY IN FY2022

- 46** states with **\$100M+**
- 31** states with **\$500M+**
- 23** states with **\$1B+**

Credit: United for Medical Research

AIMBE ADVOCATES FOR BIOMEDICAL RESEARCH AT NIH

AIMBE

Advocate for Equity

INVESTING IN UNDERREPRESENTED MEDICAL AND BIOLOGICAL ENGINEERS

AIMBE LAUNCHES NEW EMERGING LEADERS PROGRAM

The goal of AIMBE's Emerging Leaders Program is to increase AIMBE's engagement with exceptional early- to mid-career professionals underrepresented in medical and biological engineering (MBE), recognize outstanding rising leaders in MBE, and serve as a pipeline for URM leaders to AIMBE's College of Fellows.

Each year, AIMBE will select up to 20 emerging leaders who will be recognized during AIMBE's Annual Meeting. Emerging leaders will have a unique opportunity to network and engage with AIMBE Fellows at the Annual Event, participate in targeted projects, and receive direct mentoring from current AIMBE Fellows.

AIMBE'S COMMITMENT TO DIVERSITY, EQUITY, AND INCLUSION



BRENDAN HARLEY, SC.D.
DnI Committee Chair
University of Illinois at
Urbana-Champaign



EVAN SCOTT, PH.D.
CURM Committee Co-Chair
Northwestern University



JERRY C. COLLINS, PH.D.
CURM Committee Co-Chair
Alabama A&M University
Lipscomb University

The mission of the AIMBE Committee for the UnderRepresented and Marginalized (CURM) is to recognize the contributions of underrepresented and marginalized groups (URM) in medical and biological engineering and to advocate on their behalf for their advancement within the field.

AIMBE's Diversity and Inclusion Committee strives to achieve greater diversity and inclusion within AIMBE. This committee is responsible for identifying best practices and benchmarking compared to other societies and for developing programming for potential future Fellows of AIMBE.

LAUNCHING NEW EQUITY AND INCLUSION INITIATIVES

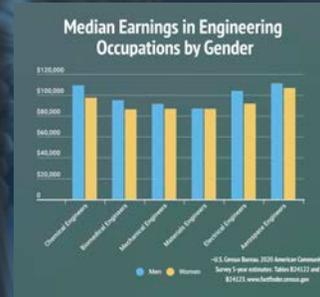
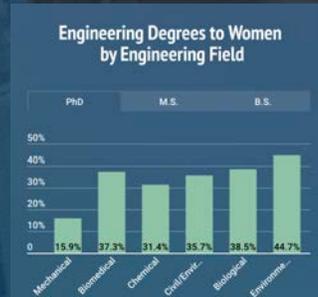
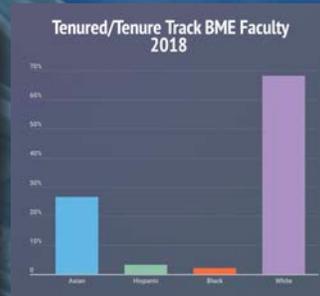
It Matters



DIVERSITY.AIMBE.ORG

AIMBE PROVIDES COMPREHENSIVE DIVERSITY RESOURCES

Women and underrepresented minorities have made tremendous breakthroughs and innovations that are critical to the field, often while overcoming many obstacles. AIMBE celebrates these trailblazers and provides a central touch point where Fellows can find resources about diversity in the field, learn about the scientific advances of women and underrepresented minorities, and track both the progress and obstacles to success.



DIVERSITY IS AT THE HEART OF INNOVATION

AIMBE

Advocate for Training

TRAINING THE NEXT GENERATION IN SCIENCE POLICY

AIMBE LEADS ACCLAIMED PUBLIC POLICY INSTITUTE FOR STUDENTS



AIMBE hosted its highly acclaimed two-day *Public Policy Institute for Rising Leaders* on the intersection of science and policy in the historic Rayburn Building of the U.S. House of Representatives. Trainees learned from Washington Insiders about how public policy shapes the scientific enterprise. Thirty-one universities were represented among the attendees. AIMBE supported travel awards to 14 underrepresented minority students to participate in the event. AIMBE partnered with the Department of Biomedical Engineering at the University of California, Irvine to host the Institute's networking reception.



FEDERAL AGENCY LEADERS ADDRESS INSTITUTE



AIMBE Fellow Susan Margulies, Ph.D., Assistant Director, Directorate for Engineering, National Science Foundation, provided the keynote talk for the event on *Broadening Bioengineering Impacts through Government Service*.



AIMBE Fellow Grace Peng, Ph.D., Director of Mathematical Modeling, Simulation and Analysis, NIH/NIBIB, presented on *Federal Government Careers for Scientists*.



AIMBE Fellow Anton Dmitriev, Ph.D., Deputy Director, Office of Science and Engineering Laboratories, Center for Devices and Radiological Health, FDA spoke on *Regulatory Science at FDA*.

PROVIDING UNPARALLELED ACCESS TO POLICY EXPERTS

AIMBE TRAINS BME STUDENTS ON PUBLIC POLICY

AIMBE's Public Policy Institute enables students to identify the stakeholders shaping public health in Washington, understand how the legislative branch governs the scientific enterprise, and learn about federal policy initiatives that shape research.

PUBLIC POLICY ISSUES SHAPING SCIENTIFIC INNOVATION

- FDA Regulatory Science
- Health Policy Issues
- Science Policy Careers
- Congressional Legislation
- Role of Coalitions in Policy
- U.S. Science & Tech Policy

TRAINING THE NEXT GENERATION OF MEDICAL AND BIOLOGICAL LEADERS IN POLICY



Erica Kimmerling, Ph.D., Assistant Director for Community Driven Health, White House Office of Science and Technology Policy, spoke on S&T Policy under the Biden Administration.



Joseph Sapiente, Vice President, Clinical Science & Technology, Medical Device Innovation Consortium (MDIC) spoke on MDIC.



Purva Rawal, Ph.D., Chief Strategy Officer, CMS Innovation Center, Centers for Medicare & Medicaid Services, spoke on *Developing Equitable Health Policies*.



Tammy Boyd, J.D., Vice President, Federal Advocacy and Strategic Alliances, American Cancer Society Cancer Action Network gave a talk on *Health Policy*.



Anita Desikan, MS, MPH, Senior Analyst, Center for Science and Democracy, Union of Concerned Scientists, focused on *The Misuse of Science in Policy*.



Tannaz Rasouli, Director of Public Policy, Association of American Medical Colleges, presented on *The Role of Coalitions and Associations in Public Policy*.

AIMBE LEADS THE WAY ON SCIENCE POLICY TRAINING

AIMBE

Advocate for Excellence

PROVIDING LEADERSHIP, VISION, AND ADVOCACY

2023 AIMBE PROFESSIONAL IMPACT AWARDS

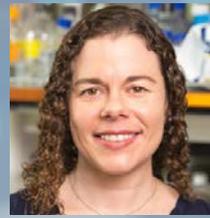
MENTORING



NICHOLAS PEPPAS, SC.D.

For his stellar impact on the field through outstanding mentoring of students and early career faculty.

DIVERSITY, EQUITY, INCLUSION



KAREN CHRISTMAN, PH.D.

For outstanding leadership in improving diversity, equity, and inclusion for students and faculty in engineering.

EDUCATION



MARIBEL VAZQUEZ, SC.D.

For her sustained and innovative inclusion of health disparities and its public health impacts into Biomedical Engineering undergraduate curricula, training and outreach.

LEADERSHIP



GUILLERMO AMEER, SC.D.

For exceptional leadership in advancing biomaterial S&T translation, promoting the field of regenerative engineering, & diversity and inclusion among professional societies.

RECOGNIZING EXCELLENCE IN MEDICAL & BIOLOGICAL ENGINEERING

2023 PIERRE GALLETI AWARD

Christine E. Schmidt, Ph.D.

For her national leadership in developing and translating technology to help patients while also advocating for the discipline and working tirelessly to make the field more inclusive and equitable.



AIMBE's highest honor recognizing outstanding achievement in medical and biological engineering

CHAMPIONING PROGRESS

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Boston University

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University of Washington

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Vanderbilt University

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Virginia Tech

Chair, Industry Council
SuPing Lyu, Ph.D.
Medtronic

Chair, Council of Societies
Naomi Chesler, Ph.D.
UC, Irvine

COLLEGE OF FELLOWS

Class of 2023

THE MOST ACCOMPLISHED MEDICAL AND BIOLOGICAL ENGINEERS

THE MOST ACCOMPLISHED MEDICAL AND BIOLOGICAL ENGINEERS



**TOP 2% OF
MEDICAL & BIO
ENGINEERS**

**AIMBE FELLOWS REPRESENT
LEADERS ACROSS THE FIELD**

**FELLOWS ARE PEER-NOMINATED,
REVIEWED, AND ELECTED**

INDUSTRY

Designing new technologies and therapies to advance health care.

ACADEMIA

Advancing innovation from the seed of development and providing top-notch educational practices.

CLINICAL PRACTICE

Providing hands-on care to improve a patient's quality of life.

GOVERNMENT

Directing public policies that shape medical innovation and discovery.

Susan Abu-Absi, Ph.D.

Seventy bio

For outstanding contributions to advancing manufacturing technologies for biotherapeutics, including clinical translation and commercial approval of cell and gene therapies.

Shivaun Archer, Ph.D.

Cornell University

For outstanding contributions to biomedical engineering education through hands-on innovative lab experimentation.

Marilyn Barger, Ph.D.

Florida Advanced Technological Education Center of Excellence

For outstanding contribution in synthetic membrane technology development for water purification and biomedical technical workforce development.

Ashley C. Brown, Ph.D.

North Carolina State University and University of North Carolina at Chapel Hill

For outstanding contributions to the development of biomaterial-based therapies for treating trauma, wounds, and thrombosis.

Nadeen O. Chahine, Ph.D.

Columbia University

For pioneering interdisciplinary contributions to intervertebral disc mechanobiology, inflammation and biomarkers and advancing the understanding on diversity in medicine.

Guillermo Aguilar, Ph.D.

Texas A&M University

For outstanding reputation in research, development, and education, providing exemplary stewardship as department chair and leadership in professional communities.

Brenna Argall, Ph.D.

Northwestern University

For outstanding contributions to the field of robotics and human-machine interfaces with specific emphasis on rehabilitation of patients with disabilities.

Anna Belu, Ph.D.

Medtronic

For pioneering advanced surface science techniques to understand the device-tissue interface and advance the field of implantable medical devices.

Jianfeng Cai, Ph.D.

University of South Florida

For distinguished contributions in new biomaterial development, especially unnatural peptide-based therapeutics for neurodegenerative, cancer and infectious diseases.

Jingyi Chen, Ph.D.

University of Arkansas

For outstanding contributions to the development of functional nanostructures and translation for diagnosis and therapy of cancer and infectious disease.

Hongyu An, D.Sc.

Washington University in St. Louis

For outstanding contributions in advancing the technology of magnetic resonance imaging alone and in combination with positron emission tomography (PET/MRI).

Rima Arnaout, MD

University of California, San Francisco

For pioneering contributions to deep learning for translational biomedical imaging; data-efficient, clinically informative, and robust models on real-world medical imaging.

Gene A. Bornzin, Ph.D.

Abbott (Retired)

For outstanding and sustained innovation in Cardiac Pacemakers, Implantable Defibrillators, and Implantable monitors serving to improve millions of lives.

Mary Caldorera-Moore, Ph.D.

Louisiana Tech University

For insightful contributions to novel biomaterials for therapeutics, and for leadership in biomedical engineering education and high school programs.

Cynthia A. Chestek, Ph.D.

University of Michigan

For pioneering contributions to neural engineering technologies and translation, and to supporting women in engineering and science.

Nelly Andarawis-Puri, Ph.D.

Cornell University

For outstanding contributions to the understanding of the pathogenesis of tendinopathy and identifying mechanisms to promote repair of injured tendons.

Randolph S. Ashton, Ph.D.

University of Wisconsin-Madison

For outstanding contributions to human neural stem biology, derivation, differentiation, and neural organoid bioengineering and sustained commitment to increasing diversity.

Kristy K. Brock, Ph.D.

University of Texas MD Anderson Cancer Center

For outstanding contributions to advancing the methodology and clinical application of anatomical modeling for image-guided interventions.

Maria G. Castro, Ph.D.

University of Michigan Medical School

For distinguished contributions to the brain tumor field, development of immune-engineered nanomedicines and gene-therapies for brain cancer; mentoring women and minorities.

Melanie J. Coathup, BSc, Ph.D.

University of Central Florida

For pioneering research in developing biomaterials for orthopedics, and providing international leadership in translational medicine.

Rhima M. Coleman, Ph.D.*University of Michigan*

For outstanding contributions to integrating tissue engineering with synthetic biology and computation, and to engagement with under-represented students and faculty.

Rita R. Colwell, Ph.D.*University of Maryland, College Park*

For pioneering contributions to marine biotechnology and microbial ecology, and for international leadership in science, technology, and health policy.

David T. Corr, Ph.D.*Rensselaer Polytechnic Institute*

For innovative and transformative contributions to the study of skeletal muscle mechanics, musculoskeletal soft tissue engineering, and laser-based biofabrication.

James E. Crowe, MD*Vanderbilt University Medical Center*

For seminal research about the action of human antibodies, and translation for development of numerous antibody drugs for infectious diseases.

Guohao Dai, Ph.D.*Northeastern University*

For contributions in vascular mechanobiology and 3D bioprinting vascular networks for tissue engineering, regenerative medicine applications.

Kapil R. Dandekar, Ph.D.*Drexel University*

For outstanding contributions leveraging wireless systems to advance the development of wearable biomedical sensors.

Susan Daniel, Ph.D.*Cornell University*

For uniquely integrating biomolecular engineering, biophysics, and infection biology to advance understanding of coronavirus entry into cells and antiviral targets.

Cesar de la Fuente-Nunez, Ph.D.*University of Pennsylvania*

For the development of novel antimicrobial peptides designed using principles from computation, engineering, and biology.

Derrick Dean, Ph.D.*Alabama State University*

For leadership in developing biomedical engineering programs at HBCUs, and for pioneering contributions to fibrous scaffolds for cell culture.

Charles C. Della Santina, MD, Ph.D.*Johns Hopkins School of Medicine*

For pioneering contributions to research and development of vestibular implants to aid individuals disabled by loss of inner ear function.

Salil S. Desai, Ph.D.*North Carolina A&T State University*

For promoting diversity through seminal contributions to biomanufacturing research, and education in regenerative tissue engineering, drug delivery, and biomedical implants.

Damini Dey, Ph.D.*Cedars-Sinai Medical Center*

For pioneering contributions in artificial intelligence analysis of medical images for risk stratification of cardiac disease.

Congwu Du, Ph.D.*State University of New York at Stony Brook*

For her pioneering work in the development of multimodality biophotonic techniques to image the brain-functional-changes resulting from drug addiction.

Bradley Duerstock, Ph.D.*Purdue University*

For outstanding contributions and leadership toward greater accessibility and inclusion of persons with disabilities in STEM fields.

Mary Dunlop, Ph.D.*Boston University*

For outstanding research contributions on cell-to-cell heterogeneity in gene expression alongside leadership in service and education initiatives for synthetic biology.

Kafui Dzirasa, MD, Ph.D.*Duke University*

For his pioneering work in understanding the electrical patterns that underlie mental health disorders and his advocacy for inclusive science.

Issam El Naqa, Ph.D.*Moffitt Cancer Center*

For outstanding contributions to AI/ML applications in medical imaging and treatment outcome modeling.

Yun Fang, Ph.D.*University of Chicago*

For pioneering contributions to addressing mechano-sensitive gene regulation in vascular and pulmonary health and disease, leading to new therapeutic approaches.

Bruce Gale, Ph.D.*University of Utah*

For outstanding contributions to advancing innovative applications of microfluidic technologies to address biomedical needs through research and commercialization.

Jan Grimm, MD, Ph.D.*Memorial Sloan Kettering Cancer Center*

For groundbreaking contributions to the molecular imaging field, including theranostic nanomedicines and diagnostic imaging technologies.

Paul A. Harris, Ph.D.*Vanderbilt University Medical Center*

For pioneering contributions in biomedical data collection, standardization, and cloud-based systems that support machine learning.

Florence P. Haseltine, MD, Ph.D.*University of Texas at Arlington*

For lifelong policy/advocacy work ultimately leading to women inclusion in clinical studies and incorporation of sex differences in biomedical research.

Karmella A. Haynes, Ph.D.*Emory University*

For inventing epigenome actuation, a new approach for epigenetic engineering, and outstanding contributions to bioengineering education, and diversity and inclusion.

Cecil F. Higgs, Ph.D.*Rice University*

For pioneering work in predicting the tribological performance of orthopedic hip implants, and for outstanding contributions to biomedical diversity outreach.

Mitchell Ho, Ph.D.*National Institutes of Health*

For outstanding contributions to the development of glypicans as cancer therapeutic targets and antibody engineering methodologies for cancer therapy.

Andrij Holian, Ph.D.*University of Montana*

For fundamental understanding of bioactivity and toxicity of nanomaterials and advancing science in safe nanomaterial development and potential therapeutic treatment.

Yi Hong, Ph.D.*University of Texas at Arlington*

For leading contributions in developing elastic and functional biomaterials for cardiovascular engineering, and children and women healthcare.

Tony Y. Hu, Ph.D.*Tulane University*

For his outstanding contributions to disease diagnostics by developing nanomaterial-based tools to facilitate translational studies for critical global health initiatives.

Junzhou Huang, Ph.D.*University of Texas at Arlington*

For outstanding contributions to innovative machine learning methods for pathological image and molecular data analysis.

Aileen Huang-Saad, Ph.D., MBA*Roux Institute, Northeastern University*

For outstanding contributions to development of BME entrepreneurship education microenvironments and studying their impact on the engagement of diverse populations.

David Jaffray, Ph.D.*University of Texas MD Anderson Cancer Center*

For pioneering the state of modern image-guided radiotherapy, advancing the science of medical physics, and international leadership in data science.

Diane Joseph-McCarthy, Ph.D.*Boston University*

For outstanding contributions to novel computational approaches applied to drug design and the translation of early-stage assets to preclinical/clinical development.

Lance Kam, Ph.D.*Columbia University*

For outstanding contributions to understanding of how physical, biomolecular, and spatial cues drive the function of living cells.

Jennifer J. Kang-Mieler, Ph.D.*Stevens Institute of Technology*

For innovation in ocular drug delivery, outstanding professional service, and contributions to biomedical engineering education.

Andrea Kasko, Ph.D.*University of California, Los Angeles*

For outstanding contributions to biomaterials research and leadership in advancing diversity, equity and inclusion in education.

Kattesh V. Katti, MSc.Ed, Ph.D., D.Sc.*University of Missouri*

For outstanding contributions in Nanonuclear and Nanoayurvedic medicines through applications of biological engineering and green nanotechnology translating life saving products.

COLLEGE OF FELLOWS

Class of 2023

THE MOST ACCOMPLISHED MEDICAL AND BIOLOGICAL ENGINEERS

Shaf Keshavjee, MD

University Health Network

For global leadership in thoracic surgery innovations, including gene therapy and Ex Vivo Lung Perfusion, providing more lungs for transplant.

Betty Y.S. Kim, MD, Ph.D., FRCSC

University of Texas MD Anderson Cancer Center

For outstanding contributions to biomedical nanotechnology, especially to the development of nano-enabled immunotherapies for cancer.

William S. Kisaalita, Ph.D.

University of Georgia

For contribution to education and inquiry in the field of microtissue engineering, and promotion of engineering education in underserved countries.

Abhijit Kulkarni, Ph.D.

Cellino

For advancing technologies from concept to patient for hearing healthcare, neuromodulation, pain management, and targeted drug delivery for neurologic disorders.

M. N. V. Ravi Kumar, Ph.D.

University of Alabama

For distinguished contributions to the field of drug delivery, particularly for outside the box periodic-functional polyesters and non-competitive targeting strategies.

Vinod Labhasetwar, Ph.D.

Lerner Research Institute, Cleveland Clinic

For pioneering contributions in the field of nanomedicine, advancing research and education, and developing enabling technologies for clinical translation.

Byron J. Lambert, Ph.D., MAR

Abbott

For advancing sterility assurance solutions for innovative combination products and forging creative pathways for environmentally sustainable sterilization.

Shulamit Levenberg, Ph.D.

Technion - Israel Institute of Technology

For leading biomedical engineering researches and translational projects applying stem cells and tissue engineering for regenerative medicine and food production.

Jenshan Lin, Ph.D.

National Science Foundation

For pioneering contributions in vital-sign micro-radar and its biomedical applications.

Jonathan F. Lovell, Ph.D.

University at Buffalo

For outstanding contributions to the fields of drug and vaccine delivery, based on development of innovative nanoscale technologies.

Minglin Ma, Ph.D.

Cornell University

For outstanding contributions to advancing the cell replacement therapies for type 1 diabetes and the translation of biomaterial research.

Bangalore S. Manjunath, Ph.D.

University of California, Santa Barbara

For outstanding contributions to the design, development and deployment of reproducible scientific image analytics platform.

Hui Mao, Ph.D.

Emory University School of Medicine

For outstanding contributions to medical imaging technology and application and nanomedicine.

Clare McCabe, Ph.D.

Heriot Watt University

For seminal innovations in computational biology enabling molecular level understanding of the role of skin lipid self assembly.

Megan L. McCain, Ph.D.

University of Southern California

For the development of advanced in vitro models of heart and muscle for fundamental insights into mechanobiology and disease.

Ernesta M. Meintjes, Ph.D.

University of Cape Town

For outstanding contributions to the development and applications of MRI to understand the effects of prenatal insults on brain development.

Paul Mensah, Ph.D.

Pfizer, Inc.

For leadership in accelerating process development of biotherapeutics including the key components for the first approved COVID-19 vaccine.

Kathryn Miller-Jensen, Ph.D.

Yale University

For outstanding contributions to the field of systems immunology, including fundamental research contributions, building a professional community, and promoting diversity.

James Moon, Ph.D.

University of Michigan, Ann Arbor

For innovation at the interface of engineering, immunology and pharmaceuticals that led to development of novel therapeutics.

Bijan Najafi, Ph.D., M.Sc.

Baylor College of Medicine

For pioneering contributions in developing digital health technologies that have shown enormous promise in preventing falls and limb life-threatening gangrene.

Eric Nauman, Ph.D.

University of Cincinnati

For outstanding contributions to the study of human injury and translation of that knowledge into preventative and therapeutic interventions.

Corey Neu, Ph.D.

University of Colorado Boulder

For outstanding contributions to new imaging technologies for biological mechanics and translation of engineered tissues toward clinical therapy.

Thao Nguyen, Ph.D.

Johns Hopkins University

For pioneering contributions to the mechanics of soft materials, and to the understanding of glaucoma, blast injury, and collagen remodeling.

Victor Nizet, MD

UC San Diego School of Medicine

For pioneering basic research in microbial pathogenesis and innate immunity, and for innovative bioengineered treatment strategies for complex infectious diseases.

William Noble, Ph.D.

University of Washington

For methods development at the intersection of machine learning and computational biology to study genomic and proteomic data.

Michael O'Connor, Ph.D.

Medtronic

For outstanding contributions to the development of biological engineered medical devices which led to the commercialization of many lifesaving medical devices.

Burak Ozdoganlar, Ph.D.

Carnegie Mellon University

For his research, education, and professional contributions bridging biomedical engineering, scalable manufacturing, and mechanical design and analysis.

Dipanjan Pan, Ph.D.

Pennsylvania State University

For outstanding contributions to nanomedicine and biosensing, and exceptional entrepreneurship in the development of molecularly targeted and biodiagnostic agents.

Ki Dong Park, Ph.D.

Ajou University

For contributions to the development of polymeric biomaterials for tissue engineering, regenerative medicine, drug delivery, nanomedicine, medical devices, and commercialization.

Julie Price, Ph.D.

Massachusetts General Hospital & Harvard Medical School

For outstanding contributions to the modeling of quantitative positron emission tomography data in neurodegenerative diseases.

Lei S. Qi, Ph.D.

Stanford University

For contributions to the development and dissemination of genome editing techniques.

Peng Qiu, Ph.D.

Georgia Institute of Technology

For outstanding contributions in bioinformatics, computational biology, and single-cell data science.

Jessica C. Ramella-Roman, Ph.D.

Florida International University

For outstanding contributions to the fields of biomedical optics and biophotonics.

Renata F. Ramos, Ph.D.

Rice University

For outstanding contributions to biomedical engineering education through pedagogical innovation and development of multidisciplinary and equitable educational programs and opportunities.

Parisa Rashidi, Ph.D.

University of Florida

For visionary leadership in Medical AI research and education, and benefiting patients in hospital and critical care settings.

Jeffrey J. Saucerman, Ph.D.

University of Virginia

For pioneering contributions to cardiac systems biology; developing quantitative approaches to elucidate the signaling networks of heart remodeling.

Rachael Schmedlen, Ph.D.

University of Michigan

For her outstanding leadership in developing high caliber BME design curricula that have served as examples nationally and internationally.

Avi Schroeder, Ph.D.

Technion, Israel Institute of Technology

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