



25 Years

AIMBE
Annual Event
April 3-4, 2016

~ Washington, DC ~



NSB Director
Walter E. Massey, PhD

AIMBE
Inaugural Event



Secretary of HHS Louis W. Sullivan, MD
Founding Fellow Pierre M. Galletti, PhD

25 Years
AIMBE

President's Circle Reception

Saturday, April 2
8:00 - 9:30 p.m.
Marriott Metro Center

***AIMBE Past Presidents and Founding
Fellows serve as special guests***



Robert M. Sereni
Founding President
1982-1994



Jerome S. Scholitz
Past President
1995-1996



Pierre Galletti
Past President
1994-1995

Shu Obico
Past President
2000-2001

SUNDAY, APRIL 3 WASHINGTON MARRIOTT AT METRO CENTER

8:30 a.m. - 10:30 a.m.	AIMBE Board of Directors Meeting <i>London II</i>
10:00 a.m. - 11:30 a.m.	Council of Chairs Meeting (*affiliated group) <i>Salon E</i>
10:00 a.m.	Registration OPEN
10:30 a.m. - 11:30 a.m.	CURM Strategic Planning Meeting Chaired by <i>Gilda Barabino & Lynne Jones</i> <i>Penn Quarter</i>
10:30 a.m. - 11:30 a.m.	New Inductee Orientation <i>Jr. Ballroom</i>
12:30 p.m. - 1:15 p.m.	Opening Session: Presidential Address <i>Ravi V. Bellamkonda, AIMBE President</i> <i>Salons ABCD</i>
1:15 p.m. - 2:00 p.m.	Earl Bakken Lecture Eliminating Global Health Disparities: The Essential Role of Bioengineering <i>Rebecca Richards-Kortum, Rice University</i> <i>Salons ABCD</i>
2:00 p.m. - 2:45 p.m.	Transforming Healthcare through Scientific Wellness <i>Leroy Hood, President, Institute for Systems Biology</i> <i>Salons ABCD</i>
2:45 p.m. - 3:15 p.m.	Networking Break

3:15 p.m. - 4:00 p.m.	The Digital Transformation of Healthcare <i>George Savage, Co-Founder & Chief Medical Officer, Proteus Digital Health</i> <i>Salons ABCD</i>
4:00 p.m. - 4:40 p.m.	The Power of Miniaturization in Medicine <i>Sangeeta Bhatia, MIT</i> <i>Salons ABCD</i>
4:40 p.m. - 6:00 p.m.	Academic Council Meeting <i>Chaired by Todd Giorgio, Vanderbilt University</i> <i>Jeffrey Mervis, Science magazine</i> <i>Jr. Ballroom Salons 1 & 2</i>
4:40 p.m. - 6:00 p.m.	Industry Council Meeting <i>Chaired by Susan Drapeau, Vericel Corporation</i> <i>AIMBE FDA Scholars</i> <i>Capitol Hill</i>
4:40 p.m. - 6:00 p.m.	Council of Societies Meeting <i>Chaired by Lynne Jones, Johns Hopkins University</i> <i>Boardroom</i>
6:30 p.m. - 7:00 p.m.	Awards Banquet Reception <i>Grand Ballroom Foyer</i>
7:00 p.m. - 9:00 p.m.	25th Anniversary Awards Banquet and Pierre Galletti Award Presentation <i>Salons ABCD</i>
9:30 p.m. - 11:00 p.m.	Academic and Industry Council Networking - All attendees welcome. <i>Fire & Sage Restaurant at Washington Marriott</i>

MONDAY, APRIL 4 NATIONAL ACADEMY OF SCIENCES

7:50 a.m.

Bus Transportation to National Academies

Buses depart from Washington Marriott at 7:50 & 8:20 a.m.
National Academy of Sciences
 2101 Constitution Avenue, NW
 Washington, DC 20037

9:00 a.m. -

9:20 a.m.

College of Fellows

Christine Schmidt, College of Fellows Chair

9:20 a.m. -

9:50 a.m.

NSF & AIMBE: Partners in Biomedical Exploration

NSF Director France A. Córdova

9:50 a.m. -

10:20 a.m.

The Science Behind Failed Policy

Milan P. Yager, AIMBE Executive Director

10:20 a.m.

Networking Break

10:50 a.m. -

11:20 p.m.

Congressional Insight from a Former Member of Congress

Rush D. Holt, CEO American Association for the Advancement of Science

11:20 a.m. -

12:00 p.m.

Induction Ceremony

AIMBE inducts the 2016 Class of the College of Fellows. This ceremony represents passage into the most prestigious honorific medical & biological engineering society.

12:00 p.m. -

1:10 p.m.

Inductee Luncheon

1:00 p.m. - 1:15 p.m.	Introduction of Fellows inducted to NAE, NAM & NAS
1:15 p.m. - 1:50 p.m.	Catalyzing Translational Innovation <i>NCATS Director Christopher P. Austin</i>
1:50 p.m. - 3:00 p.m.	AIMBE Distinguished Leadership Panel <i>Robert Nerem, Georgia Institute of Technology</i> <i>Nicholas Peppas, University of Texas at Austin</i> <i>Kenneth Lutchen, Boston University</i> <i>Cato Laurencin, University of Connecticut</i> <i>Health Center</i>
3:00 p.m. - 3:45 p.m.	Future of Scientific Journals <i>Thomas Connelly, CEO American Chemical</i> <i>Society</i>
3:45 p.m.	Adjournment & Bus transportation to Ronald Reagan Nation Airport

2016 CLASS OF THE COLLEGE OF FELLOWS

Nicholas L. Abbott, Ph.D.

University of Wisconsin-Madison

For creative advances related to the science and application of colloidal and interfacial phenomena to biomolecular systems.

Elfar Adalsteinsson, Ph.D.

Massachusetts Institute of Technology

For leadership in the development of multiple fast imaging and parallel transmission methods and bringing state-of-the-art signal processing and optimization strategies to clinical MRI.

Sunil K. Agrawal, Ph.D.

Columbia University

For outstanding contributions in designing intelligent innovative rehabilitation machines and training algorithms for rehabilitation of patients with neurological disorders.

Eben Alsberg, Ph.D.

Case Western Reserve University

For outstanding contributions to the fields of Tissue Engineering and Biomaterials.

Sneh Anand, Ph.D.

Indian Institute of Technology Delhi

For pioneering inventions in biomedical engineering and making outstanding contributions to society including becoming India's first woman biomedical engineer.

Mark A. Anastasio, Ph.D.

Washington University in St. Louis

For outstanding contributions to the development of emerging computed bio-imaging modalities.

Bonnie H. Anderson

Veracyte

For outstanding contribution to the field of molecular cytology and diagnostics.

Anthony Atala, M.D.

Wake Forest Institute for Regenerative Medicine

For outstanding contributions to the development of regenerative medicine and the successful translation of tissue engineering principles into clinical practice.

Scott Banta, Ph.D.

Columbia University

For significant contributions in the engineering of proteins for biochemical applications including bioenergy, biocatalysis, biomaterials and biointerfaces.

Bonnie Berger, Ph.D.

Massachusetts Institute of Technology

For outstanding research contributions to computational biology and mentoring of future bioinformatics leaders.

Cory J. Berkland, Ph.D.

University of Illinois at Urbana-Champaign

For pioneering the development of chemical imaging technology and the use of optical spectroscopic methods for digital pathology.

Rohit Bhargava, Ph.D.

The University of Kansas

For founding multiple successful biotech companies, translating colloidal and polymeric materials applied to regenerative medicine, and controlled release drug delivery.

2016 CLASS OF THE COLLEGE OF FELLOWS

Kristen L. Billiar, Ph.D.

Worcester Polytechnic Institute

For outstanding research that has advanced our understanding of the micro-mechanics of cardiovascular tissues and for leadership in bioengineering education.

Bharat H. Bissal, Ph.D.

New Jersey Institute of Technology

For outstanding contributions to the field of human brain imaging research, and education of future biomedical engineers.

Barbara E. Blum, Ph.D.

Wright Medical

For leadership in the field of tissue engineering products for bone grafting and soft tissue repair.

Kwame Adu Hounken, Ph.D.

Stanford University

For fundamental contributions to bioengineering and neuroscience through the design, construction and application of neuromorphic computing systems.

John M. Brown, Ph.D.

University of California, Davis

For outstanding contributions to the physics and engineering of diagnostic x-ray imaging, and for leadership in x-ray imaging and dosimetry.

Cesario Borlongan, Ph.D.

University of South Florida

For outstanding contributions and international leadership in the advancement of experimental therapies for neurological disorders, especially stroke stem-cell therapy.

Arindam Bose, Ph.D.

Pfizer Worldwide R&D

For exemplary contributions to process development, clinical supply manufacturing, and corporate biotechnology strategy resulting in life-saving biologics for clinical practice.

Jatiana K. Bronicki, Ph.D.

University of Nebraska Medical Center

For major and seminal contribution in the use of polyelectrolyte complexes and block copolymers for drug delivery for treatment of cancer.

Anthony M J Bull, Ph.D.

Imperial College London

For outstanding contributions to the basic mechanics of joints and tissues, and the study of military blast injuries.

Dino Di Carlo, Ph.D.

University of California, Los Angeles

For outstanding contributions to inertial microfluidics that have revolutionized the biotechnology of cell separation.

Timothy Carroll, Ph.D.

Northwestern University

For outstanding contributions to the development of principally new MRI strategies for high spatial and temporal resolution angiography for management of ischemic stroke.

Nimish Chandra, Ph.D., M.E.

New Jersey Institute of Technology

For outstanding contributions to the biomechanics of blast induced brain injury and identifying better protections and therapeutic methods.

Jiang Chang, Ph.D.

Chinese Academy of Sciences

For outstanding contribution to bioceramics, micro/nano materials and the leadership in bioengineering.

Ravi V.J. Chari, Ph.D.

ImmunoGen

For key contributions to the field of antibody drug conjugates which have directly benefited patients with cancer.

Yong Q. Chen, Ph.D.

Beckman Coulter

For outstanding contributions to design of next generation cell analysis technologies.

Donald Edward Chickering, Ph.D.

XTIut Pharmaceuticals

For the development of multiple innovative nanotechnology based pharmaceuticals and medical device products.

Karen Leigh Christman, Ph.D.

University of California, San Diego

For outstanding contributions in the development and application of injectable biomaterials for treating cardiovascular diseases.

Andre I. Churchwell, M.D.

Vanderbilt University

For outstanding contributions at the interface of clinical cardiology and biomedical engineering for patients and as a mentor for trainees, educators, and young investigators.

Cynthia Thatcher Clague, Ph.D.

Medtronic

For outstanding contributions in the area of heart valve therapies research and innovation activities, with a particular focus on transcatheter valve therapies/technologies.

Laurence P. Clarke, Ph.D.

National Cancer Institute

For outstanding contributions to the advancement of biomedical imaging, especially in the realm of cancer diagnosis and treatment.

Jeffrey L. Cleland, Ph.D.

GrayBug, Inc.

For outstanding contributions to the development and commercialization of protein and antibody-based medicines and leadership in the biotechnology industry.

Stuart Foster Coym, Ph.D.

University of Texas at Dallas

For outstanding contributions to the understanding of the electrochemistry and properties of neural stimulation and recording electrodes.

Mary E.M. Croninwell, Ph.D.

Genentech, Inc.

For outstanding contributions to developing and commercializing monoclonal antibody formulations, drug product manufacturing processes and understanding their product quality attributes.

Jianmin Cui, Ph.D.

Washington University in St. Louis

For outstanding contributions to the field of molecular and cellular bioengineering.

2016 CLASS OF THE COLLEGE OF FELLOWS

Ninan Tracy Cui, Ph.D.

University of Pittsburgh

For outstanding contributions to the research and development of neural interface technology, drug delivery, and biosensors.

Valerie Duggett, Ph.D.

University of Washington

For outstanding contributions to protein engineering and design via the characterization of protein unfolding and structural changes linked to disease.

Narendra B. Dahotre, Ph.D.

University of North Texas

For pioneering contributions to fundamentals and engineering of laser-material interactions during advanced manufacturing and processing of biomaterials and sustained service to the materials community.

Bruce E. Dale, Ph.D.

Michigan State University

For outstanding contributions in the biological engineering of transforming plant biomass to food and fuel to achieve a sustainable bioeconomy.

Edward R. Damiano, Ph.D.

Boston University

For fundamental contributions in our understanding of microcirculation, and for designing, building, and testing a wearable bionic pancreas.

Bruce L. Daniel, M.D.

Stanford University

For fundamental contributions to bioengineering and medicine through the development and application of novel methods for breast cancer diagnosis and interventions.

Christos Davatzikos, Ph.D.

University of Pennsylvania

For outstanding contributions to the fields of medical image processing, biomedical image analysis, and medical imaging science.

Cristina E. Davis, Ph.D.

University of California, Davis

For outstanding contributions to non-invasive chemical and biological sensing tools, algorithms, and applications.

Suvramu De, Ph.D.

Rensselaer Polytechnic Institute

For outstanding contributions to developing computational algorithms for virtual surgery and for leadership in engineering education.

Henry J. Donahue, Ph.D.

Virginia Commonwealth University

For seminal discoveries in bone biology, service to professional societies, and training and mentoring leaders in musculoskeletal biology and bioengineering.

Emilia Encheva, Ph.D.

George Washington University

For pioneering work in cardiac optogenetics— spearheading the development and biophysical characterization of new bioengineering tools towards all-optical.

Rebecca Fahrig, Ph.D.

Siemens Healthcare GmbH

For outstanding contributions in x-ray and cone-beam CT image-guided interventions.

Sergio Funtini, Ph.D.

Tufts University

For outstanding contributions to the development of quantitative techniques for diffuse optical spectroscopy and imaging of biological tissue.

Keyvan Farahani, Ph.D.

National Cancer Institute

For pioneering work in the creation of the new field of image-guided drug delivery.

Jack I. Ferracane, Ph.D.

Oregon Health & Science University

For outstanding contributions in developing enhanced durability and clinical performance of dental composite restorative materials and to improving oral healthcare.

Claudia Fischbach-Teschl, Ph.D.

Cornell University

For integrating bio-inspired engineering strategies to elucidate the contributions of physical factors to cancer development, progression, and therapy resistance.

Scott Fraser, Ph.D.

University of Southern California

For outstanding contributions to research and training in convergent biosciences and bioengineering.

Donna French, Ph.D.

Genentech, Inc.

For outstanding contributions to the development and commercialization of innovative drug delivery systems that enable reliable and accurate self-administration of injectable drugs.

Robert D. Frisina, Ph.D.

University of South Florida

For outstanding contributions and leadership in discovering causes of age-related hearing loss and developing innovative pathways for detection and treatment.

Il Gahler, Ph.D.

Virginia Tech

For his exceptional contributions to crash injury biomechanics and innovative methods to reduce crash injury risk

John Georgiadis, Ph.D.

Illinois Institute of Technology

For outstanding contributions to quantitative imaging of the human brain and muscle by coupling in vivo MRI and numerical simulation.

Sharon Gerech, Ph.D.

Johns Hopkins University

For outstanding contributions to bioengineering studies in stem cell biology, vasculogenesis and cancer.

James Goh, Ph.D.

National University of Singapore

For exceptional contributions to musculoskeletal bioengineering and active promotion of the field of biomedical engineering.

2016 CLASS OF THE COLLEGE OF FELLOWS

Garry E. Gold, M.D.

Stanford University School of Medicine
For major contributions in Magnetic Resonance Imaging that continuously create and apply new techniques for biomechanical and biomedical applications.

Jeffrey J. Gray, Ph.D.

Johns Hopkins University
For seminal contributions to protein-protein docking, antibody homology modeling and docking, and design of biomimetic peptides.

Ning Gu, Ph.D.

Southeast University
For outstanding contributions to the development of magnetic nanomaterials for biomedical applications, as well as to the advancement of biomedical engineering and nanomedicine in China.

Mariah S. Hahn, Ph.D.

Rensselaer Polytechnic Institute
For pioneering work on biomaterials for vocal cord reconstruction and cell adhesion studies leading to low thrombogenicity materials.

Teresa Heul-Gordon, Ph.D.

University of California, Berkeley
For outstanding contributions to the development of fundamental computational methodologies applied to macromolecular assemblies, disease aggregation, molecular liquids, and biomaterials.

Sarah Hetschorn, Ph.D.

Stanford University
For outstanding work in the development of novel biomaterials for use in tissue engineering and regenerative medicine therapies.

I. Zach Hill, Ph.D.

University of Kentucky
For pioneering contributions to biomaterials technology, specifically the development of nanocomposite hydrogels as remotely controlled biomaterials and analyte-responsive drug delivery systems.

Christa K. Holland, Ph.D.

University of Cincinnati
For outstanding scientific research contributions and dedicated leadership in the field of biomedical ultrasound.

Tzung K. Hsiao, M.D., Ph.D.

University of California, Los Angeles
For outstanding contributions to patient-specific intervention including integrating vascular biology, electrochemical impedance, and MEMS to detect plaque burden.

Shan-hui Hsu, Ph.D.

National Taiwan University
For contributions in biomaterials elastomers and material-based cell spheroid culture and leadership in education.

James C. Harris, Ph.D.

Icahn School of Medicine, Mount Sinai
For outstanding contributions to understanding the pathophysiology of injury to and new strategies for the repair of the intervertebral disc.

Xavier Intes, Ph.D.

Rensselaer Polytechnic Institute
For outstanding contributions to Photonics through the development of innovative functional and molecular optical imaging techniques in industry and academia.

Pedro P. Irazoqui, Ph.D.

Purdue University
For outstanding contributions to implantable electronic devices.

Omur Israk, Ph.D.

Medtronic, PLC
For driving innovation and promoting global affordable healthcare.

Hongrui Jiang, Ph.D.

University of Wisconsin-Madison
For outstanding contributions to bio-inspired micro-scale optical imaging tools for medical imaging.

Zonglai Jiang, Ph.D.

Shanghai Jiao Tong University
For outstanding contributions to the field of mechanobiology and dedicated service to biomedical engineering societies.

Lloyd Johnston, Ph.D.

Selecta Biosciences, Inc.
For outstanding contributions to the development, scale-up and clinical translation of novel technologies in the fields of drug delivery and nanotechnology.

Abhay Joshi, Ph.D., MBA

Reverance Therapeutics
For taking BOTOX from initial lab-scale production, formulation, GMP manufacturing, scale-up, and supply chain logistics to global commercialization and distribution.

Aric D. Katsis

US Food and Drug Administration
For outstanding contributions to the regulatory approval process of tissue-engineered orthopaedic products and the resulting advancements in patient care.

Ryszard Kaminiski, Ph.D.

Simon Fraser University
For outstanding technology leadership in microelectronics and nanoscale optics for human benefit in healthcare, security, commerce and art.

Kázmér Kázerunian, Ph.D.

University of Connecticut
For pioneering the application of applied kinematics to the field of protein molecules, drug design, drug delivery and nano-bio machines.

Shana O. Kelley, Ph.D.

University of Toronto
For outstanding contributions to the development of new chip-based sensors for point-of-care molecular analysis.

Butrus T. Kiluri-Jakub, Ph.D.

Stanford University
For outstanding contributions to ultrasound imaging systems and devices, and particularly for pioneering work in the development of capacitive micromachined ultrasound.

Kristine M. Kriesewter, Ph.D., MBA

Acclity
For the development of novel wound healing products of significant commercial value.

Matthews Kofias, Ph.D.

Rensselaer Polytechnic Institute
For outstanding contributions at the interface of metabolic engineering and synthetic biology through integrated modeling and experimental studies on metabolism.

2016 CLASS OF THE COLLEGE OF FELLOWS

Efrosini Kokkoti, Ph.D.

University of Minnesota
For outstanding contributions to the design of peptide- and aptamer-amphiphiles for the development of functionalized biomaterials.

Akihiko Kondo, Ph.D.

Kobe University
For outstanding contribution to the development of microbial cellular factories for sustainable biofining.

Todd A. Kuiken, M.D., Ph.D.

Northwestern University; Rehabilitation Institute of Chicago
For seminal contributions to the field of bionic medicine, including the development and clinical deployment of targeted muscle reinnervation.

John M. Lambert, Ph.D.

Immunogen
For outstanding contributions to the field of targeted drug conjugates for the treatment of cancer.

Seung-Wook Lee, Ph.D.

University of California, Berkeley
For discovery of novel bioinspired material self-assembly systems and development of multiple applications of biomaterials in biomedicine, biosensing, and bioenergy.

Shu Jiang Li, Ph.D.

Collagen Matrix, Inc.
For outstanding contributions to collagen technology with more than 25 collagen and mineral-based implants on the market.

Xiaohong Li, Ph.D.

University of the Pacific
For outstanding contributions to novel drug delivery system and contemporary pedagogy in pharmaceutical sciences.

Jian Li, Ph.D.

University of California
For outstanding contributions to Class B GPCR, SUMOylation, quantitative FRET technologies, high-throughput screening and drug discoveries.

Chwee Teck Lim, Ph.D.

National University of Singapore
For outstanding contributions in applying cell mechanics and designing innovative microfluidic technologies for disease diagnosis, prognosis and personalized treatment.

Steven R. Little, Ph.D.

University of Pittsburgh
For exceptional contributions to the field of controlled release and the establishment of the nascent field of biomimetic drug delivery.

Huaili Liu, Ph.D.

University of Texas at Arlington
For seminal contributions to the development of near infrared spectroscopy/imaging and their broad applications for biomedicine.

Lilizabeth G. Loboa, Ph.D.

University of Missouri, Columbia
For outstanding contributions to functional tissue engineering, regenerative medicine and wound healing as well as academic leadership and mentoring in engineering.

Laurie E. Lovasco, Ph.D.

National Institute of Standards and Technology
For outstanding contributions to the fields of microfluidics and biosensors for applications in biomedical sciences and engineering.

Mian Long, Ph.D.

Institute of Mechanics, Chinese Academy of Sciences
For outstanding contributions to molecular biomechanics in cell-cell interactions and to cellular mechanobiology and bioengineering in space.

P. Worth Longest, Ph.D.

Virginia Commonwealth University
For outstanding contributions to the field of pharmaceutical aerosols that enable improved targeting of the small airways.

Qingming Luo, Ph.D.

Huazhong University of Science and Technology, China
For significant contributions in demonstrating the first long-range tracing of individual axons in the mouse brain.

Suzanne A. Maher, Ph.D.

Hospital for Special Surgery
For outstanding contributions to functional tissue engineering and the development of novel approaches to joint restoration.

Mia K. Markay, Ph.D.

The University of Texas at Austin
For significant contributions to biomedical informatics and imaging physics to improve cancer care, and for leadership in biomedical engineering education.

Cynthia H. McCollough, Ph.D.

Mayo Clinic
For outstanding contributions in quantitative and low radiation dose CT imaging.

Cameron C. McIntyre, Ph.D.

Case Western Reserve University School of Medicine
For outstanding contributions to the scientific analysis, therapeutic mechanisms, and technology development of deep brain stimulation clinical therapy.

John McEldor

Medtronic
For foundational and lasting contributions to the development of the modern pacemaker.

Lee E. Miller, Ph.D.

Northwestern University
For outstanding contributions to the neuroscience and engineering involved in the development of brain-machine interfaces for the control of movement.

Chad A. Mirkin, Ph.D.

Northwestern University
For outstanding contribution to nanomaterials engineering, development and application widely used both academically and commercially as diagnostic and therapeutic agents.

Shrawan Mohapatra, Ph.D., MBA

College of Pharmacy/Morsani College of Medicine
For outstanding contributions in the field of biomedical nanotechnology and leadership in translational nanomedicine.

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Shree Mohli, Ph.D.

University of California, Irvine

For outstanding contributions to development of techniques for quantification of coronary artery lumen volume and blood flow using digital angiography.

Pierre Monsan, Ph.D.

Toulouse White Biotech French Nat'l Institute for Agricultural Research

For outstanding scientific and industrial contributions to the field of enzymatic carbohydrate synthesis, with a specific focus on nutritional applications.

Daniel W. Morrin, Ph.D.

Washington University in St. Louis

For outstanding contributions to the development of novel brain-computer interface technologies for chronic communication and control.

Jeffrey R. Morgan, Ph.D.

Brown University

For outstanding contributions to genetic engineering, tissue engineering, 3-D cell culture and biomedical engineering education at Brown University.

John A. Morgan, Ph.D.

Purdue University

For seminal work on the computation prediction and experimental quantification of metabolic fluxes in photosynthetic organisms.

Lance Lynn Munn, Ph.D.

Massachusetts General Hospital

For outstanding contributions to blood fluid dynamics, vessel mechanobiology and tumor physiology.

William Murray

Medical Device Innovation Consortium (MDIC)

For outstanding accomplishments in the advancement of products that improve the lives of patients and the environment in which medical products are developed.

Charles E. Murty, M.D., Ph.D.

University of Washington

For outstanding developments in stem cell biology, cell transplantation and tissue engineering for heart tissue repair and regeneration after injury.

Shashi K. Murthy, Ph.D.

Northeastern University

For outstanding contributions to the science and technology of cell purification for therapeutic and analytical applications.

Krishna Narah, Ph.D.

University of Southern California

For significant contributions to rapid and quantitative magnetic resonance imaging through novel pulse sequences and image reconstruction techniques.

Celeste M. Nelson, Ph.D.

Princeton University

For outstanding contributions to the fields of quantitative developmental and cancer biology.

Kathryn Nightingale, Ph.D.

Duke University

For pioneering the development of Acoustic Radiation Force Impulse elasticity imaging which is now employed world-wide to stage hepatic fibrosis.

Konstantina S. Nikita, Ph.D.

National Technical University of Athens

For contributions to modeling bioelectromagnetic interactions and biomedical imaging.

Robert M. Nishikawa, Ph.D.

University of Pittsburgh

For outstanding contributions to the development, assessment of physical image quality, and translation of digital mammographic imaging and computer-aided detection.

Assad Oberai, Ph.D.

Rensselaer Polytechnic Institute

For pioneering work in the field of biomechanical imaging, and its application to breast cancer diagnosis and care.

Zheng Ouyang, Ph.D.

Purdue University

For his outstanding contributions in converting mass spectrometry from a massive analytical instrument into a point of care biomedical device through miniaturization and ambient ionization technology development.

Devdas M. Pai, Ph.D., P.E.

North Carolina Agricultural & Technical State University

For exceptional leadership in establishing the first B.S. and M.S. biomedical engineering degree programs at a historically black college/university.

Rifat Pamukcu, M.D.

Midway Pharmaceuticals, Inc.

For outstanding contributions to the fields of gastroenterology, cancer chemoprevention and signal transduction systems.

Jason Pappin, Ph.D.

University of Virginia

For outstanding contributions to the development and application of computational methods to biochemical networks in metabolic engineering and infectious disease.

Robin V. Pappu, Ph.D.

Washington University in St. Louis

For outstanding contributions to protein engineering and design and the molecular basis of neurodegeneration through advances in computational biology.

Panos M. Pardalos, Ph.D.

University of Florida

For outstanding contributions to computational neuroscience and introduction of novel optimization and data mining techniques to biomedical research.

Kevith D. Paulsen, Ph.D.

Dartmouth College

For significant research and translational contributions to computational methods in imaging and image-guidance to diagnosis and treat cancers.

Shawn Peirce-Cottler, Ph.D.

University of Virginia

For outstanding contributions to multiscale computational modeling of tissue growth and adaptation.

Donald R. Peterson, Ph.D.

Texas A&M University - Texarkana

For outstanding contributions to biomedical engineering leadership, education, and community outreach, and for seminal research in human exposure and response.

2016 CLASS OF THE COLLEGE OF FELLOWS

Jürgen Papp, Ph.D.

Institute of Physical Chemistry

Friedrich-Schiller University Jena;

Leibniz Institute of Photonic Tech

For outstanding contributions to the development of Raman-based technologies for clinical diagnosis and applications in pathology, oncology, and infectious diseases.

Ronald K. Poropatich, M.D.

University of Pittsburgh

For outstanding contributions in the field of medical informatics with particular emphasis on mobile health and telemedicine in military/civilian settings.

Jerry L. Prince, Ph.D.

Johns Hopkins University

For outstanding contributions to biomedical imaging and image analysis.

Beth L. Pruitt, Ph.D., P.E.

Stanford University

For outstanding contributions in microscale measurement technology for cell biomechanics and quantitative cell mechanobiology.

Andrew J. Putnam, Ph.D.

University of Michigan

For outstanding contributions to the understanding of the cell-matrix interface in mechanobiology and vascularization, and to biomedical engineering education.

Madhavan L. Raghavan, Ph.D.

The University of Iowa

For outstanding contributions to the field of soft tissue biomechanics as applied to the study of cerebral and aortic aneurysms.

Jennifer L. Reed, Ph.D.

University of Wisconsin-Madison

For advancements in understanding microbial metabolism and regulation with applications to metabolic engineering, bioremediation, and health.

Michael Reigner, Ph.D.

University of Washington

For outstanding developments in gene therapies, tissue engineering and pharmaceuticals to improve diseased cardiac and skeletal muscle performance.

Theresa M. Reinecke, Ph.D.

University of Minnesota

For outstanding and creative contributions to the design and discovery of synthetic polymers for drug and gene delivery.

Cynthia Reinhart King, Ph.D.

Cornell University

For outstanding contributions in cellular and tissue mechanics in disease progression.

Blayne A. Roeder, Ph.D.

Cook Medical

For outstanding contributions to treating aortic disease through the development of endovascular devices and procedures in collaboration with physicians.

Ann E. Rundell, Ph.D.

Purdue University

For use of control theory to solve problems in biomedicine.

Cristina Sablino, Ph.D.

Louisiana State University

For innovative research involving the production and use of nanoparticles for food and therapeutic applications.

Clifford M. Samuel

Gilead Sciences, Inc.

For pioneering new approaches to providing medicines in developing countries, thereby redefining access standards and averting millions of HIV/AIDS deaths.

Juan G. Santiago, Ph.D.

Stanford University

For outstanding contributions to fundamental understanding of electrokinetic phenomena impacting a wide range of applications spanning from energy to bioanalysis.

Sudeep Sarkar, Ph.D.

University of South Florida

For distinguished contributions to the field of gait biomechanics and burn scar analysis.

George M. Savage, M.D.

Proteus Digital Health

For innovation and medical device entrepreneurship and in advancement of transformative digital health technologies to reduce healthcare cost and improve personalized medicine.

Randall Lee Schissel

Boston Scientific Corporation

For outstanding contributions to biomedical technology innovation and knowledge-sharing, and public-private collaboration.

Kathleen M. Schmalz, Ph.D.

Medical College of Wisconsin

For the development of biologically relevant and clinically actionable MRI metrics of the vascular and invasive status of brain tumors.

Tzung T. Shen, M.D., Ph.D.

University of Washington

For innovative research and development bringing medical devices and new technologies to eye surgery and clinical ophthalmologic practice.

Krishna V. Shenoy, Ph.D.

Stanford University

For remarkable discoveries about the neural mechanisms underlying motor control as the basis of new advanced brain-machine interfaces for motor prosthetics.

Barbara Shinn-Gunningham, Ph.D.

Boston University

For outstanding contributions to auditory neuroscience, especially information processing in auditory attention and spatial hearing.

Samuel Sia, Ph.D.

Columbia University

For unique contributions to commercialization of diagnostics for global health, new approaches to biotech innovation, and STEM education.

Jeffrey Harold Stewerdsen, Ph.D.

Johns Hopkins University

For outstanding contributions to medical imaging and image-guided interventions.

2016 CLASS OF THE COLLEGE OF FELLOWS

Gabriel A. Silva, Ph.D.

University of California, San Diego
For outstanding contributions to understanding and reverse engineering of cellular neural network signaling in the brain and retina.

Christina D. Smolke, Ph.D.
Stanford University

For outstanding contributions in biological engineering and synthetic biology, especially RNA systems that process information and control biological processes.

Sheng-Kwei Song, Ph.D.

Washington University in St. Louis
For outstanding contributions to the development of MRI endogenous biomarkers of white matter inflammation, injury, and function.

Jan P. Stegemann, Ph.D.
University of Michigan

For important contributions to biomaterials science that have enabled the understanding of cell-matrix interactions and the development of cell-based therapies.

Ulrich Steinke, Ph.D.

Heinrich Institute, Aachen
For outstanding contributions in research, development, industrial implementation of cardiovascular implants, particularly cardiac valves and cardiac assist devices.

Samuel Stupp, Ph.D.

Northwestern University
For the development of bioactive and self-assembling supramolecular biomaterials for regenerative medicine.

Fung-Chin Su, Ph.D.

National Cheng Kung University, Tainan, Taiwan
For fundamental and outstanding contributions to the understanding of the hand biomechanics and the development of medical device innovation.

Laura J. Suggs, Ph.D.

The University of Texas at Austin
For exceptional contributions to the structure of novel biomaterials and for fundamental studies of cell/biomaterials interactions.

Candan Tamerler, Ph.D.

University of Kansas
For scientific contributions to the design of biomolecular recognition based self-assembled and self-organized hybrid-nanomaterials, to bio-nanotechnology and next generation biomaterials.

Lena Ting, Ph.D.

Emory University and Georgia Institute of Technology
For outstanding accomplishments in neuromechanics of muscle coordination for locomotion and balance.

Claire J. Tomlin, Ph.D.

University of California, Berkeley
For outstanding contributions to the development of mathematical models that link molecular networks to the cellular processes they control.

Michael Tracey, Ph.D.

Johnson and Johnson
For outstanding contributions as a leader in industry, through Johnson and Johnson, and philanthropy, through Engineering World Health.

Anubhav Tripathi, Ph.D.

Brown University
For advancing understanding biochemical and biomolecular processes in microchip environments.

Ross Tuba, Ph.D.

Vertec Corporation
For pioneering Tissue Engineering products Epic and Carticel, and defining stem cell biology in cancer and autoimmune disease.

Michelle A. Tucci, Ph.D.

University of Mississippi Medical Center
For outstanding contributions to the field of drug delivery, cellular physiology, and education.

James W. Tunnell, Ph.D.

The University of Texas at Austin
For exceptional contributions to the development of imaging and spectroscopy devices for the early detection and treatment of cancer.

Richard P. Van Duyne, Ph.D.

Northwestern University
For contributions to the field of Raman spectroscopy and pioneering applications of Surface Enhanced Raman Spectroscopy to biology and medicine.

Shyam Varghese, Ph.D.

University of California, San Diego
For pioneering contributions to the field of bio-inspired materials, stem cells, and regenerative medicine.

Horst von Recum, Ph.D.

Case Western University
For outstanding contributions to advancement of biomaterials in drug delivery through translational research applied to implant infection, cardiovascular disease, cancer, and others.

Runkang K. Wang, Ph.D.

University of Washington
For the development and application of optical coherence tomography and for dissemination of community.

James H.-C. Wang, Ph.D.

University of Pittsburgh
For outstanding contributions to developing bio-technologies for biological research and discoveries that advance our understanding and treatment of tendinopathy.

Yong Wang, Ph.D.

University of Missouri - Kansas City
For outstanding contributions to the field of dental biomaterials and advancing the characterization of the molecular/structural properties mineralized tissues.

Leor S. Weinberger, Ph.D.

University of California, San Francisco; Gladstone Institute
For contributions in establishing the field of synthetic virology and for pioneering a new spectrum of antiviral therapeutics.

Ross T. Whitaker, Ph.D.

University of Utah

For novel algorithms and software to advance the state of the art in medical image analysis.

Justin C. Williams, Ph.D.

University of Wisconsin-Madison

For outstanding contributions to the field of neuroengineering research, and education and leadership in biomedical engineering.

Jessica O. Winter, Ph.D.

Ohio State University

For outstanding contributions in biomolecular engineering, particularly the synthesis and development of magnetic quantum dots for cell imaging and separations.

Zhongjun Jon Wu, Ph.D.

University of Louisville

For outstanding contributions to the development of methods, tools, and technologies to develop and evaluate cardiovascular devices.

Lei Xing, Ph.D.

Stanford University

For outstanding contributions to the field of medical physics and biomedical engineering, in particular in the area of inverse treatment planning and X-ray molecular imaging.

Jian Yang, Ph.D.

Pennsylvania State University

For contributions to the citrate-based biomaterials and technology translation in medical device industry.

Yi Yan Yang, Ph.D.

Institute of Bioengineering and Nanotechnology, Agency for Science, Technology and Research, Singapore

For outstanding innovations in biomedicine, contributions in creating a global biomaterials community, and training young scholars.

Tai-Horng Young, Ph.D.

National Taiwan University

For seminal research achievement in biomaterials and tissue engineering, and leadership in biomedical engineering.

Kang Zhang, M.D., Ph.D.

University of California, San Diego

For outstanding contributions in basic research and clinical applications to advancing genomics, stem cell, tissue engineering, and drug delivery.

Xin Zhang, Ph.D.

Boston University

For pioneering contributions in expanding the toolset for measuring cellular behavior through the development of optomechanical and impedance-based sensing platforms.

Gang Zheng, Ph.D.

University of Toronto

For outstanding contributions on activatable photosensitizers for photodynamic therapy and discovery of porphyrin nanotechnology in cancer imaging and therapy.

Bin Zheng, Ph.D.

University of Oklahoma

For significant contributions in developing computer-aided detection schemes of medical images.

S. Kevin Zhou, Ph.D.

Siemens Healthcare Technology

For outstanding contributions to medical imaging using machine learning and leadership in translating automated imaging algorithms into commercial products.