BMES
BIOMEDICAL ENGINEERING SOCIETY

8201 Corporate Drive | Suite 1125
Landover, Maryland 20785-2224
301.459.1999 | phone • 301.459.2444 | fax
www.bmes.org

BMES Officers

PRESIDENT
Lori Setton, PhD
Washington University in St. Louis

INCOMING PRESIDENT
Dawn Elliott, PhD
University of Delaware

SECRETARY
John White, PhD
Boston University

TREASURER
Ben Noe
Medtronic

PUBLICATIONS BOARD CHAIR
Kristina Ropella, PhD
Marquette University

FINANCE COMMITTEE CHAIR
Jane Grande-Allen, PhD
Rice University

BMES Board of Directors

2015–2018 DIRECTORS

Guillermo Ameer, ScD
Northwestern University

Todd Giorgio, PhD
Vanderbilt University

Denise Forkey, MSBME
Medical Device Development Solutions

Marjolein van der Meulen, PhD
Cornell University

2016–2019 DIRECTORS

Catherine Klapperich, PhD
Boston University

Sara Muldoon, B.S.
Abbott, Inc.

Brenda Ogle, PhD
University of Minnesota–Twin Cities

Beth Winkelstein, PhD
University of Pennsylvania

2017–2020 DIRECTORS

Anjelica Gonzalez, PhD
Yale University

Hanjoong Jo, PhD
Emory University and Georgia Tech

Craig Simmons, PhD
TBEP/University of Toronto

Rebecca Willits, PhD
The University of Akron

STUDENT REPRESENTATIVE

Matthew Brown
Mayo Graduate School

BMES Staff

Edward L. Schilling, III
Executive Director

Doug Beizer
Communications Director

Michele Ciapa, MPH, CHES
Education Director

Valerie A. Kolmaister
Operations and Finance Director

Jenn Novesky
Director of Membership Development and Corporate Partnerships

Debra Tucker, CMP
Annual Meeting Director

Terry Young
Director Career Programs and Meetings

Elizabeth Richards
Student Affairs Manager

Lori Saskiewicz
Registrar

Katherine Quintanilla
Receptionist/Administrative Assistant

Media Contact

Doug Beizer
doug@bmes.org
410.814.9564

Future BMES Annual Meetings

October 16–19, 2019
Philadelphia, Pennsylvania

October 14–17, 2020
San Diego, California

October 6–9, 2021
Orlando, Florida

Social Media – #BMES2018

Please share your comments, photos & videos!

@BMESociety
Please use the hashtag #BMES2018

@BMESociety
Please use the hashtag #BMES2018

www.youtube.com/BMESociety

www.facebook.com/BMESociety

Download the BMES 2018 Annual Meeting Mobile App!

Navigate the event *Like A Pro* with the BMES 2018 mobile app, powered by Core-apps

With the BMES 2018 mobile app, you can:

- ***Stay organized with up-to-the-minute Exhibitor, Speaker, and Session information***
- ***Sync the app across all of your devices***
- ***Receive important real-time communications from BMES***
- ***Build a personalized schedule and bookmark exhibitors***
- ***Take notes and download event handouts and presentations***
- ***Rate the sessions you attend and comment on them, too***
- ***Locate sessions and exhibitors on the Georgia World Congress Center maps***
- ***Find attendees and connect with your colleagues through Friends***
- ***Stay in-the-know and join in on social media with #BMES2018***
- ***Share your event photos and experiences with the Photo Gallery***
- ***And much, much more!***

DOWNLOADING THE APP IS EASY!

SCAN: *Use your devices QR code scanner to quickly find the **BMES 2018** app.*

SEARCH: *The App Store or Google Play for **"BMES"***

FOR ALL OTHER DEVICE TYPES: *(including BlackBerry, Windows, and other web browser-enabled devices): point your mobile browser to:*
www.core-apps.com/dl/bmes2018
to be directed to the proper download version for your device.

Once you have downloaded and opened the app choose **BMES 2018** *and tap Download.*

Platform Compatibility: Android v4x+ and iOS v7x+
Should you have any questions, please contact: **support@core-apps.com**

GET IT ON Google Play

Available on the App Store

AUTHOR INDEX
Available on the Mobile App *(see ad above)* **at:**
http://submissions.mirasmart.com/bmes2018/itinerary
Copies are also available at the Registration Desk.

Don't forget to turn your BMES BASH ticket in for a wristband at the information or registration booths before Friday afternoon

Thank You for our Sponsors' Generous Support

DIAMOND

Georgia Tech

Wallace H. Coulter Department of Biomedical Engineering
Georgia Tech College of Engineering and Emory School of Medicine

EMORY UNIVERSITY

PLATINUM

Virginia Tech Wake Forest Biomedical Engineering

JOHNS HOPKINS BIOMEDICAL ENGINEERING

GOLD

CLEMSON BIOENGINEERING

UT DALLAS Department of Bioengineering

UCDAVIS BIOMEDICAL ENGINEERING

Thank you to our other supporters:

Grants and funds have been provided by the National Institute of Biomedical Imaging and Bioengineering, the National Science Foundation and Medtronic for the BMES 2018 Annual Meeting

NIH National Institute of Biomedical Imaging and Bioengineering

NSF

Medtronic

Thank You for our Sponsors' Generous Support

SILVER

UF UNIVERSITY of FLORIDA

TEXAS A&M BIOMEDICAL ENGINEERING TEXAS A&M UNIVERSITY

BIOENGINEERING University of Illinois at Urbana-Champaign ENGINEERING FOR LIFE

#WashUBME Department of Biomedical Engineering

BRONZE

ACS Biomaterials SCIENCE & ENGINEERING

Mayo Clinic Graduate School of Biomedical Sciences

University at Buffalo The State University of New York Department of Biomedical Engineering

University of Cincinnati

Fischell Department of Bioengineering

Department of Bioengineering The University of Utah

VCU College of Engineering

Department of Bioengineering University of Washington

Thank You to our BMES Corporate Members and their Support of the Society

Boston Scientific
Advancing science for life™

Medtronic

Lori Setton, PhD

BMES President

Chair
Department of Biomedical Engineering in the School of Engineering & Applied Science
BMES Fellow

Washington University in St Louis
St. Louis, Missouri

Welcome to Atlanta and the 2018 Annual Meeting of the Biomedical Engineering Society (#BMES2018)! Thank you for making 2018 a record-breaking year for the Biomedical Engineering Society! We have broken records for numbers of attendees at our Annual Meeting, for numbers of abstracts submitted, and for sponsors interested in supporting our Society's meeting. The message is clear–biomedical engineering has never been more promising, more exciting and more diverse as a research discipline and as a profession.

This year also marks the 50th Anniversary of the founding of the Society. With our Annual Meeting theme, "Celebrating the Past, Transforming the Future" we pay homage to the decades of dedicated volunteers and leaders who had a vision for a new discipline and interdisciplinary engineering community. BMES was founded in 1968 by 83 founding members with less than $3,000 in hand. These visionaries understood the value of bringing like-minds together, and continued to convene each and every year for 50 years. As we look at our Annual Meeting with 4,300+ in attendance, and a Society with nearly 7,000 members, we appreciate the value of creating this community and pay our respects to the founding members.

We will have several 50th Anniversary celebrations throughout the meeting. Make sure you visit the 50th Anniversary booth on the expo floor to explore the **50th Anniversary time capsule** containing contributions from biomedical engineering firms and investigators, to be housed in the National Museum of Health and Medicine. On site, you can take pictures and write notes to future BMES members and place them in the time capsule. The 50th Anniversary efforts were supported by institutions and individuals that paid to sponsor the time capsule and celebratory events—you can see tiles commemorating their contributions all over the time capsule. And don't miss the Friday Night Dessert Bash with live music from BEDrock, a band of biomedical engineering musicians—a perfect blend of the arts and STEM! Also, please join me in thanking Martine LaBerge for her leadership in anniversary planning. We are also grateful to Paul Fagette for his work on the 50th, as well as his 20+ years as the Society's historian. And a special thanks to Clemson University for donating and constructing the 50th Anniversary Time Capsule.

Over the next four days, please give special attention to our impressive line-up of keynote speakers. Things kick-off Thursday morning with Rashid Bashir delivering the Robert A. Pritzker Distinguished Lecture. A BMES Fellow, Dr. Bashir is a leading expert on the integration of biology, medicine, and engineering at the micro and nanoscale. On Thursday evening, Anjelica Gonzalez, the Donna L. Dubinsky Associate Professor at Yale University, will deliver the Diversity Lecture. Dr. Gonzalez's lecture will address the value of scientific engagement with a diverse and global public, and ways in which science can be made increasingly accessible.

BMES is delighted to collaborate once again with NIH on the NIBIB Lecture Friday morning featuring Lihong Wang, now the Bren Professor of Medical Engineering and Electrical Engineering at Caltech. Dr. Wang will speak on his legacy of contributions to photoacoustic imaging.

Friday evening, Josh Makower, co-founder of Stanford Byers Center for Biodesign, will deliver the Wallace H. Coulter Award for Healthcare Innovation Award Lecture. Dr. Makower will walk through the creation and evolution of "The Biodesign Process" and the Biodesign Innovation Program at Stanford.

Finally, Saturday morning will feature the Rita Schaffer Young Investigator Lecture and the inaugural BMES Mid-Career Award Lecture. Emily Day, University of Delaware, will present the Rita Schaffer talk, and Cynthia Reinhart-King of Vanderbilt University (and BMES program chair from 2016), will deliver the Mid-Career lecture. We look forward to these award-winning lectures with great anticipation as these visions of the future from young and mid-career investigators are so engaging. I encourage you to attend and perhaps apply for the awards in the future.

Join me in thanking our Conference Co-Chairs John Fisher and James Tunnell, our extraordinary BMES Staff, NSF, NIH, our sponsors and our meeting attendees. Make sure to network with your colleagues and intentionally greet and mentor some new ones. We hope you will brainstorm ideas for moving forward and sign up to participate in BMES. It's the best way to thank the BMES founders for their legacy of convening like-minded professionals and the community that it brings.

John P. Fisher, PhD

Annual Meeting Co-Chair

Fischell Family Distinguished Professor
& Department Chair
Fischell Department of Bioengineering

University of Maryland
College Park, Maryland

James Tunnell, PhD

Annual Meeting Co-Chair

Associate Professor,
Biomedical Engineering

The University of Texas at Austin
Austin, Texas

It's our pleasure to welcome you to the 2018 Annual Meeting of the Biomedical Engineering Society here in Atlanta, GA. This meeting marks the 50th Anniversary of the Society and the 28th Anniversary of the meeting. We are fortunate to celebrate this event in such a vibrant city.

While Atlanta is sprawling with towering buildings made of glass and steel, it is truly a city in the forest, dotted with expansive green spaces. This urban oasis is a multi-cultural haven yet exudes Southern hospitality. Centennial Olympic Park, next to the Georgia World Congress Center and location of the BMES 2018 Annual Meeting, is anchored by the Fountain of Rings, an everlasting reminder of the 1996 Summer Olympic Games. Next door, attractions surround Pemberton Place such as Georgia Aquarium, World of Coca-Cola and Center for Civil and Human Rights.

We celebrate the 50th Anniversary of BMES with the theme of "Celebrating the Past, Transforming the Future." We have an exciting lineup of plenary speakers that represent the broad field of biomedical engineering. The Pritzker Distinguished Lecture will be given by Dr. Rashid Bashir of the University of Illinois. Dr. Bashir leads an exciting research program integrating biology and medicine with micro and nanotechnology. The BMES-NIBIB plenary lecture will be given by Dr. Lihong Wang of Cal Tech. Dr. Wang has pioneered the development of photoacoustic tomography, combining the advantages of optical and ultrasound imaging into a single platform that allow for molecular contrast at deep tissue depths. The Wallace H. Coulter Award for Healthcare Innovation goes to Dr. Josh Makower, MD from New Enterprise Associates, Inc. Dr. Makower co-founded Stanford's Biodesign Innovation Program and as part of his leadership role at ExploraMed, has created eight companies in the past twenty years including Acclarent, EndoMatrix, TranVascular, and Neotract.

We are happy that our membership has contributed to over twenty special symposia and events. These include special research topics in immunoengineering, single cell analysis and tumor heterogeneity, bioelectronics, soft material-

enabled electronics, novel photoacoustic imaging, advanced biomanufacturing, and the biomechanics of heart valves. Student and career development special sessions occur daily and include topics such as job searching, resume reviews and networking. In addition, special discussions focus on career paths that include academic, industry and entrepreneurial careers.

The program continues to celebrate the diversity of our Society with special lectures, luncheons, and events. The Diversity Award Lecture will be given by Dr. Anjelica Gonzalez of Yale University on Thursday evening. Two separate luncheons will celebrate minorities and women in biomedical engineering with talks by Dr. Paula Hammond of MIT and Jennifer West of Duke University, respectively.

We'd like to thank the track chairs, reviewers and session chairs for all of their hard work reviewing abstracts and organizing the sessions. They had their work cut out for them this year with a record number of abstracts (3,672) and exhibitors (143). This year there will be 960 oral presentations and 2,265 posters. Thanks to all the membership for submitting so many great papers and now attending the meeting.

Finally, special thanks to all the staff and administrators that have contributed to organizing such a great meeting. We thank Annual Meeting Director Debby Tucker, BMES Executive Director Edward Schilling and BMES staffers: Doug Beizer, Michele Ciapa, Valerie Kolmaister, Terry Young, Elizabeth Richards, Lori Saskiewicz and Katherine Quintanilla. We thank the BMES leadership and board for their guidance.

We look forward to celebrating this 50th Anniversary edition of the Annual BMES meeting in Atlanta!

BMES 50th Anniversary Events
Georgia World Congress Exhibit Hall/Expo Floor

THURSDAY | SEPTEMBER 18, 2018 – FRIDAY | SEPTEMBER 19, 2018

- **Time capsule and artifacts display**–View the time capsule being installed in honor of the anniversary.
- **Pictures and notes for the future**–Take a Polaroid picture and write a note for the BMEs who will open the time capsule in 50 years.
- **50th giveaways**–Get your commemorative 50th anniversary items (while supplies last)
- **Special edition of Annals of Biomedical Engineering**–featuring the most influential articles over the last several decades.
- **Student yearbook**–View the student yearbook featuring many of the Society's student chapters.
- **Web timeline**–View the web-based timeline that traces the entire history of the Society.

SATURDAY | SEPTEMBER 20, 2018

- **Time capsule and artifacts display**–View the time capsule being installed in honor of the anniversary.
- **Special edition of Annals of Biomedical Engineering**–featuring the most influential articles over the last several decades.
- **Student yearbook**–View the student yearbook featuring many of the Society's student chapters.
- **Web timeline**–View the web-based timeline that traces the entire history of the Society.

Robert A. Pritzker Distinguished Lecture

Rashid Bashir, PhD

Grainger Distinguished Chair in Engineering
and Professor of Bioengineering
University of Illinois at Urbana-Champaign

Executive Associate Dean and Chief Diversity Officer
Carle Illinois College of Medicine

Thursday, October 18, 2018

10:15 am–11:30 am

Sidney Marcus Auditorium
Georgia World Congress Center

Biomedical Micro and Nanotechnology: Opportunities for Translational Research and Education

Integration of biology, medicine, and engineering at the micro and nano scale offers tremendous opportunities for solving important problems in healthcare and to enable a wide range of applications in diagnostics, therapeutics, and tissue engineering. In this talk, we will present our work on detection of T cells for diagnostics of HIV AIDs for global health, development of blood cell analysis on a chip for sepsis diagnosis, electrical detection of multiplexed nucleic acid amplification reactions, and detection of epigenetic markers on DNA at the single molecule level. While the above mentioned devices are built with PDMS or silicon using microfabrication approaches, bio-printing with stereolithography can be a very powerful technology to produce bio-hybrid devices made of polymers and cells such as biological machines and soft robotics. As these "biological machines" increase in capabilities, exhibit emergent behavior, and potentially reveal the ability for self-assembly and self-repair, questions can arise about the ethical implications of this work. These research examples pave the need for new models of bioengineering education to train the next generation of leaders. We will discuss these new paradigms in bioengineering and medical education, and also present the development of the Carle Illinois College of Medicine, the world's first Engineering Based College of Medicine.

Rashid Bashir, PhD is Grainger Distinguished Chair in Engineering and Professor of Bioengineering, and Executive Associate Dean and Chief Diversity at the Carle-Illinois College of Medicine (07/2017–present) at UIUC. Previously, he was the Able Bliss Professor of Engineering, Head of Department of Bioengineering (07/2013–06/2017), Director of the Micro and Nanotechnology Laboratory (a campus-wide clean room research facility) (10/2007–06/2013), and Co-Director of the campus-wide Center for Nanoscale Science and Technology (10/2010–06/2013), a "collaboratory" aimed at facilitating center grants and large initiatives around campus in the area of nanotechnology. Prior to joining UIUC, he was at Purdue University from 1998–2007 with faculty appointments in Electrical and Computer Engineering, and Bioengineering. He has authored or co-authored over 220 journal papers, over 200 conference papers and conference abstracts, and over 120 invited talks, and has been granted 45 patents. He is an NSF Faculty Early Career Award winner and the 2012 IEEE EMBS Technical Achievement Award. He is a fellow of IEEE, AIMBE, AAAS, BMES, IAMBE, RSC, and APS. His research interests include bionanotechnology, BioMEMS, lab on a chip, interfacing of biology and engineering from the molecular to the tissue scale, and applications of semiconductor fabrication to biomedical engineering, all applied to solving biomedical problems such as cancer and infectious disease diagnostics. He has been involved in 3 startups that have licensed his technologies, most recently Prenosis, Inc.

In addition to leading his own research group, he was the PI on an NSF IGERT on Cellular and Molecular Mechanics and Bionanotechnology and was PI on an NIH Training Grant on Cancer Nanotechnology. He is co-PI on a recently funded National Research Traineeship (NRT) from NSF. He is also Associate Director and UIUC lead on an NSF Science and Technology Center on Emergent Behavior of Integrated Cellular Systems (with MIT, GT, and other partners).

BMES Diversity Award Lecture

Anjelica Gonzalez, PhD

Donna L. Dubinsky Associate Professor
Yale University, Department of Biomedical Engineering

Vascular Biology and Therapeutics Program

Thursday, October 18, 2018

5:30 pm–6:30 pm

Sidney Marcus Auditorium
Georgia World Congress Centerr

Science as a Unifying Language: Building Connections between Lab and Life

Science is a language that we all speak. We just do this in many different ways. However, historically, scientists have communicated in a way that has excluded many in the public space from appreciating and participating in science in meaningful ways. In doing so, we risk the loss of public engagement, which, at its worst means the loss of contributions from the next generation of scientists that should come from all ethnic, gender and socioeconomic backgrounds.
Dr. Gonzalez's lecture will address the value of scientific engagement with a diverse and global public, and ways in which science can be made increasingly accessible.

Angelica Gonzalez is Associate Professor in the Department of Biomedical Engineering at Yale University where her research is focused on the development of biomaterials for use as investigational tools and therapeutic devices. Anjelica attended Utah State University, earning a B.S. in Irrigational and Biological Engineering and continued on to Baylor College of Medicine to pursue a PhD in Computational Biology.

From Anjelica's perspective, science and engineering will benefit from people of all perspectives, including those that come from socioeconomically challenged backgrounds, the LGBT community, and educational experiences that differ from the traditional STEM trajectory.
Her objective, throughout her career, has been to encourage an improved understanding and appreciation of science and engineering throughout the US and abroad, subsequently increasing the numbers of people with diverse perspectives that contribute to scientific education and innovation. Using national and local platforms to speak and write about science in a way that translates high-level concepts into laymen's terms, in order to increase an understanding that science belongs to everyone.

To date, Anjelica's research and writings have been acknowledged by national and international organizations, including the National Institutes of Health, New York Times, USAID, WHO, NBC, American Physiological Society and The Hartwell Foundation.

NIH NIBIB Lecture

Lihong V. Wang, PhD

Bren Professor
Andrew and Peggy Cherng
Department of Medical Engineering
Department of Electrical Engineering
California Institute of Technology

Friday, October 19, 2018

10:15 am–11:15 am

Sidney Marcus Auditorium
Georgia World Congress Center

World's Deepest-Penetration and Fastest Cameras: Photoacoustic Tomography and Compressed Ultrafast Photography

We developed photoacoustic tomography to peer deep into biological tissue. Photoacoustic tomography (PAT) provides in-vivo omniscale functional, metabolic, molecular, and histologic imaging across the scales of organelles through organisms. We also developed compressed ultrafast photography (CUP) to record 10 trillion frames per second, 10 orders of magnitude faster than commercially available camera technologies. CUP can tape the fastest phenomenon in the universe, namely, light propagation, and can be slowed down for slower phenomena such as combustion.

PAT physically combines optical and ultrasonic waves. Conventional high-resolution optical imaging of scattering tissue is restricted to depths within the optical diffusion limit (~1 mm in the skin). Taking advantage of the fact that ultrasonic scattering is orders of magnitude weaker than optical scattering per unit path length, PAT beats this limit and provides deep penetration at high ultrasonic resolution and high optical contrast by sensing molecules. Broad applications include early-cancer detection and brain imaging. The annual conference on PAT has become the largest in SPIE's 20,000-attendee Photonics West since 2010.

CUP can image in 2D non-repetitive time-evolving events. CUP has a prominent advantage of measuring an x, y, t (x, y, spatial coordinates; t, time) scene with a single exposure, thereby allowing observation of transient events occurring on a time scale down to 100 femtoseconds. Further, akin to traditional photography, CUP is receive-only—avoiding specialized active illumination required by other single-shot ultrafast imagers. CUP can be coupled with front optics ranging from microscopes to telescopes for widespread applications in both fundamental and applied sciences.

Lihong Wang earned his PhD degree at Rice University, Houston, Texas under the tutelage of Robert Curl, Richard Smalley, and Frank Tittel. He is Bren Professor of Medial Engineering and Electrical Engineering at California Institute of Technology. His book entitled "Biomedical Optics: Principles and Imaging," one of the first textbooks in the field, won the 2010 Joseph W. Goodman Book Writing Award. His Google Scholar h-index and citations have reached 120 and 59,000, respectively. His laboratory was the first to report functional photoacoustic tomography, 3D photoacoustic microscopy, photoacoustic endoscopy, photoacoustic reporter gene imaging, the photoacoustic Doppler effect, the universal photoacoustic reconstruction algorithm, microwave-induced thermoacoustic tomography, ultrasound-modulated optical tomography, time-reversed ultrasonically encoded (TRUE) optical focusing, nonlinear photoacoustic wavefront shaping (PAWS), compressed ultrafast photography (10 trillion frames/s, world's fastest camera), Mueller-matrix optical coherence tomography, and optical coherence computed tomography. He received the NIH's FIRST, NSF's CAREER, NIH Director's Pioneer, and NIH Director's Transformative Research awards. He also received the OSA C.E.K. Mees Medal, IEEE Technical Achievement Award, IEEE Biomedical Engineering Award, SPIE Britton Chance Biomedical Optics Award, Senior Prize of the International Photoacoustic and Photothermal Association, and OSA Michael S. Feld Biophotonics Award. He was inducted into the National Academy of Engineering. An honorary doctorate was conferred on him by Lund University, Sweden.

The Wallace H. Coulter Award for Healthcare Innovation Award Lecture

Josh Makower, MD, MBA

Co-Founder
Stanford Byers Center for Biodesign

Adjunct Professor of Medicine
Stanford University Medical School

New Enterprise Associates, Inc.

Friday, October 19, 2018

5:15 pm–6:15 pm

Sidney Marcus Auditorium
Georgia World Congress Center

Biomedical Innovation: A Transformation from Phenomenon to Proven Process

Innovation in medicine and surgery over past centuries has historically happened episodically with chance discoveries in the lab or clinic, or during unique moments in time where opportunity, talent and technology phenomenologically combined to produce significant advancements in patient care. More recently, the question has been asked whether we can we purposefully direct innovation and intentionally drive it to occur in spaces where there is the most clinical need. Answering this question and addressing it with a process that can taught, learned and perfected has been one of the central foci for Dr. Josh Makower's career. Dr. Makower will discuss the origins of what is now called "The Biodesign Process" and walk through its structure and evolution through the creation of the Stanford Biodesign Innovation Program, which he co-founded with Dr. Paul Yock, to the stories of several innovations produced by students, fellows and faculty of the program, and several companies which he has produced through his own incubator, ExploraMed, in collaboration with New Enterprise Associates.

The Wallace H. Coulter Award for Healthcare Innovation recognizes an outstanding individual who has demonstrated a lifetime commitment to and made important contributions to patient healthcare.

Dr. Josh Makower serves on the faculty of the Stanford University Medical School as an Adjunct Professor of Medicine and is Co-Founder of Stanford's Biodesign Innovation Program (now called the Byers Center for Biodesign). Josh helped create the fundamental structure of the Center's core curriculum and is the chief architect of what is now called "The Biodesign Process." Over the past 18 years since Josh and Dr. Paul Yock founded the Stanford Biodesign Innovation Program, this curriculum and the associated textbook has been used at Stanford and across the world to train thousands of students, faculty and industry leaders on the biodesign process towards the advancement of medical innovation for the improvement of patient care. Josh has practiced these same techniques directly as the Founder & Executive Chairman of ExploraMed, a medical device incubator, creating 8 companies since 1995. Transactions from the ExploraMed portfolio include NeoTract, acquired by Teleflex, Acclarent, acquired by J&J, EndoMatrix, acquired by C.R. Bard & TransVascular, acquired by Medtronic. Other ExploraMed/NEA ventures include Moximed, Nuelle and Willow. Josh is currently also working with NEA where he is a General Partner on their healthcare team leading the medtech/healthtech practice. Josh serves on the board of Setpoint Medical, DOTS Devices, Eargo, ExploraMed, Intrinsic Therapeutics, Moximed, Willow and Coravin. Josh holds over 300 patents and patent applications. He received an MBA from Columbia University, an MD from the NYU School of Medicine, a bachelor's degree in Mechanical Engineering from MIT and is a Member of the College of Fellows of The American Institute for Medical and Biological Engineering.

Rita Schaffer Young Investigator Lecture

Emily Day, PhD

Assistant Professor
Department of Biomedical Engineering
University of Delaware

Saturday, October 20, 2018

10:30 am–11:45 am

Sidney Marcus Auditorium
Georgia World Congress Center

Controlling Nanoparticle Architecture to Enhance Cellular Gene Regulation

Regulating cellular gene expression through the delivery of ribonucleic acids (RNAs) or antagonist antibodies holds great promise as a strategy to treat cancer. Unfortunately, naked nucleic acids display limited cell uptake because of their high molecular weight and negative charge, and those that are internalized are at risk of degradation in endolysosomal compartments. Similarly, freely delivered antibodies are limited by high required doses that may be cost prohibitive and can lead to off-target effects. In this presentation, I will discuss my research group's experience developing nanoparticle-based RNA and antibody carriers that can overcome the limitations of freely delivered therapeutics. Each nanoparticle platform that we have developed exploits the unique multivalent properties that arise when biomolecules are arranged in a three-dimensional manner on a nanoparticle scaffold. Overall, our findings demonstrate that nanoparticle architecture plays a critical role in cellular interactions and gene regulation potency, and these findings have profound implications for the use of RNA and antibody nanocarriers in medicine.

BMES established this award in 2000 to honor Rita M. Schaffer, former BMES Executive Director. Rita's gift of her estate, along with contributions from her family, friends, and associates, has enabled BMES to create the Rita Schaffer Young Investigator Award, which includes the Rita Schaffer Memorial Lecture.

Dr. Emily Day is an Assistant Professor in the Department of Biomedical Engineering at the University of Delaware. Dr. Day obtained her B.S. in Physics with a Minor in Mathematics from the University of Oklahoma in 2006, graduating summa cum laude. Dr. Day earned a PhD from Rice University in Bioengineering under the guidance of Dr. Jennifer West. Her research focused on developing nanoparticle-mediated photothermal therapy for the treatment of glioblastoma, an aggressive form of primary brain tumor. At Rice, Dr. Day received a National Science Foundation Graduate Research Fellowship, a Rice President's Graduate Fellowship, and a Howard Hughes Medical Institute Med-Into-Grad Fellowship. In 2011, Dr. Day joined the laboratory of Dr. Chad Mirkin at Northwestern University, where she developed ribonucleic acid-nanoparticle conjugates known as spherical nucleic acids for gene regulation of glioblastoma. Dr. Day was awarded an International Institute for Nanotechnology Postdoctoral Fellowship and a National Institutes of Health F32 Ruth L. Kirschstein National Research Service Award during her time at Northwestern University. Dr. Day started her lab at the University of Delaware in 2013, and her group investigates the interactions between nanoparticles and biological systems to create novel engineering tools for high precision cancer therapy. She received funding from various sources to support her work, including a W.M. Keck Foundation Grant, an NIH/NIGMS R35 Outstanding Investigator Award, and an NSF CAREER Award. Dr. Day's contributions to biomedical nanotechnology have resulted in her being named a 2018 Young Innovator in Nanobiotechnology and a 2018 Young Innovator in Cellular and Molecular Bioengineering.

Inaugural Mid-Career Award Lecture

Cynthia Reinhart-King, PhD

Cornelius Vanderbilt Professor of Engineering
Vanderbilt University

Saturday, October 20, 2018

10:30 am–11:45 am

Sidney Marcus Auditorium
Georgia World Congress Center

The Interaction of Metastasis and Mechanomedicine

While cancer mechanobiology is often viewed as a new field, it actually dates back to before even the birth of molecular biology. Early work focused simply on the characterization of cellular mechanical properties, but has evolved to examine the integrated effects of mechanics and genetics. Proof and acceptance of mechanics as a key component of cancer progression took many years, but it is now viewed as a critical promotor and initiator of tumor formation and growth. Yet, despite the fact the field has existed for decades, one of its continued hurdles is translating benchtop results into clinically relevant therapies. In this talk, I will discuss our work striving to go beyond mechanical phenotyping to examine the mechanical reciprocity within the tumor microenvironment that drives disease. Our work has demonstrated that mechanical changes in the tumor microenvironment can drive angiogenesis and impair vascular integrity, leading to leaky vasculature. Moreover, we have shown it can alter metastatic cell migration, and that cell migration, the mechanical microenvironment, and cellular energetics are linked. Changes to the structural and mechanical properties of the microenvironment alter cellular energetic demands, laying the foundation for new therapeutic avenues targeting metastatic migration by targeting cancer cell metabolism. Given that we now recognize that mechanics and solid tumor formation are linked, we as engineers need to confront the challenge of translating cancer mechanobiology into therapies for both diagnosis and treatment to help patients

Cynthia Reinhart-King is the Cornelius Vanderbilt Professor of Engineering and the Director of Graduate Studies in Biomedical Engineering at Vanderbilt University. Prior to joining the Vanderbilt faculty in 2017, she was on the faculty of Cornell University where she received tenure in the Department of Biomedical Engineering. She obtained undergraduate degrees in chemical engineering and biology at MIT and her PhD at the University of Pennsylvania in the Department of Bioengineering as a Whitaker Fellow. She then completed postdoctoral training as an Individual NIH NRSA postdoctoral fellow at the University of Rochester. Her lab's research interests are in the areas of cell mechanics and cell migration specifically in the context of cancer and atherosclerosis. Her lab has received funding from the American Heart Association, the National Institutes of Health, the National Science Foundation and the American Federation of Aging Research. She was awarded the Rita Schaffer Young Investigator Award in 2010 from the Biomedical Engineering Society, an NSF CAREER Award, the 2010 Sonny Yau '72 Excellence in Teaching Award, a Cook Award for "contributions towards improving the climate for women at Cornell," and the Zellman Warhaft Commitment to Diversity Award from the Cornell College of Engineering. She served on the BMES Board of Directors from 2014-2017 and as the 2016 BMES Annual Meeting Program Chair. She is a fellow of the Biomedical Engineering Society and the American Institute for Medical and Biological Engineering. She is an inaugural fellow of the National Academies of Science, Engineering and Medicine New Voices Program and is currently a standing member of the NIH CMT study section.

BMES CMBE
Cellular and Molecular Bioengineering Special Interest Group

2019 Cellular and Molecular Bioengineering Conference

Loews Coronado Bay Resort, Coronado, San Diego, CA | January 2-6, 2019

ENGINEERING CELL AND TISSUE COMPLEXITY

Program Topics

- Engineering cell microenvironment
- Modeling cellular networks
- Engineering disordered systems
- Morphogensis and organoids
- Organ on a chip

Conference Highlights

- Rising Star podium sessions for Principal Investigators
- Short talks for student/fellow abstracts
- Poster sessions for latest research
- Shu Chien Achievement Award presentation
- Mentoring lunch

Keynote Speakers

Doug DeSimone
University of Virginia School of Medicine

Andrew Ewald
Johns Hopkins School of Medicine

Andrew Garcia
Georgia Institute of Technology

Linda Griffith
Massachusetts Institute of Technology

Jennifer Linderman
University of Michigan

Katharina Ribbeck
Massachusetts Institute of Technology

Tatiana Segura
Duke University

Abstracts

Abstract Submission Schedule

Opens: **June 12, 2018**

Closes: **Aug. 29, 2018**

Submission information:
www.BMES.org/CMBEConf2019Abstracts

Hotel

Loews Coronado Bay Resort

Conference Rate: $199/night

Hotel Reservation Dates

Opens: **Aug. 14, 2018**
Cutoff: **Dec. 6, 2018**, or when room block is full — whichever comes first.

Reservations:
www.BMES.org/CMBEConf2019Hotel

Registration

Registration Schedule

Early: **Sept. 12-Nov. 21, 2018**

Advance: **Nov. 22-Dec. 14, 2018**

Onsite: **Jan. 2-6, 2019**

Register:
www.BMES.org/CMBEConf2019Reg

Sponsorships & Exhibits

To learn more, visit **www.BMES.org/CMBEConf2019Sponsors** or contact any conference co-chair:

- **Pamela Kreeger** kreeger@wisc.edu
- **Deborah Leckband** leckband@illinois.edu
- **Song Li** songli@ucla.edu

To learn more, visit: www.BMES.org/CMBEConf2019

Cellular and Molecular Bioengineering

Congratulates the 2018 CMBE Young Innovators!

October 2018 issue, edited by William Bentley, Lola Eniola-Adefeso, and Michael King

Tzahi Cohen-Karni
Carnegie Mellon Univ.

Emily Day
Univ. Delaware

Yizhou Dong
Ohio State Univ.

Jason Gleghorn
Univ. Delaware

Tamara Kinzer-Ursem
Purdue Univ.

Megan McCain
Univ. Southern California

Mehdi Nikkhah
Arizona State Univ.

Arghya Paul
Univ. Kansas

Ariella Shikanov
Univ. Michigan

Cheemeng Tan
Univ. California Davis

See the Young Innovators present their work on Friday, October 19, 2018 at 1:15 and 3:30pm!

- **Become a 2019 CMBE Young Innovator! Next competition is underway.**
- **Accepted authors will be invited to present their work in a special two-part platform session at the 2019 BMES Annual Meeting.**
- **To be eligible, candidates must hold a position at the Assistant Professor level or equivalent. BMES non-members are eligible and welcome.**
- **Self nominations should include title with 250-word structured abstract, and an NIH-style biosketch, emailed to mike.king@vanderbilt.edu.**

BMES
BIOMEDICAL ENGINEERING SOCIETY™
Advancing Human Health and Well-Being™

Key Dates for 2019 Young Innovators issue:
Nomination Deadline: November 9, 2018
Abstract Acceptance: December 14, 2018
Manuscript Submission: February 15, 2019
Print Publication: October 2019

The Biomedical Engineering Society (BMES) and the U.S. Food and Drug Administration (FDA) are co-hosting the conference, bringing together scientists, engineers, clinicians and other professionals from industry, academia and government. The conference is an opportunity to discuss and promote the use of computational modeling and simulations to improve patient access to high-quality, safe and effective medical devices.

TRACK TOPICS

- artificial intelligence and machine learning in medical devices
- clinical relevance of models
- digital twins in healthcare
- use of real world data as model input
- assessing credibility of computational models

Conference Organizing Committee

Leonardo Angelone, U.S. FDA, Co-chair (leonardo.angelone@fda.hhs.gov)

Adam Himes, Medtronic, Co-chair (adam.k.himes@medtronic.com)

Andrew Drach, University of Texas, Co-chair (andrew.drach@utexas.edu)

Tina Morrison, U.S. FDA, Chair-elect (tina.morrison@fda.hhs.gov)

Christopher Basciano, Becton, Dickinson and Co., Chair-elect (christopher_basciano@bd.com)

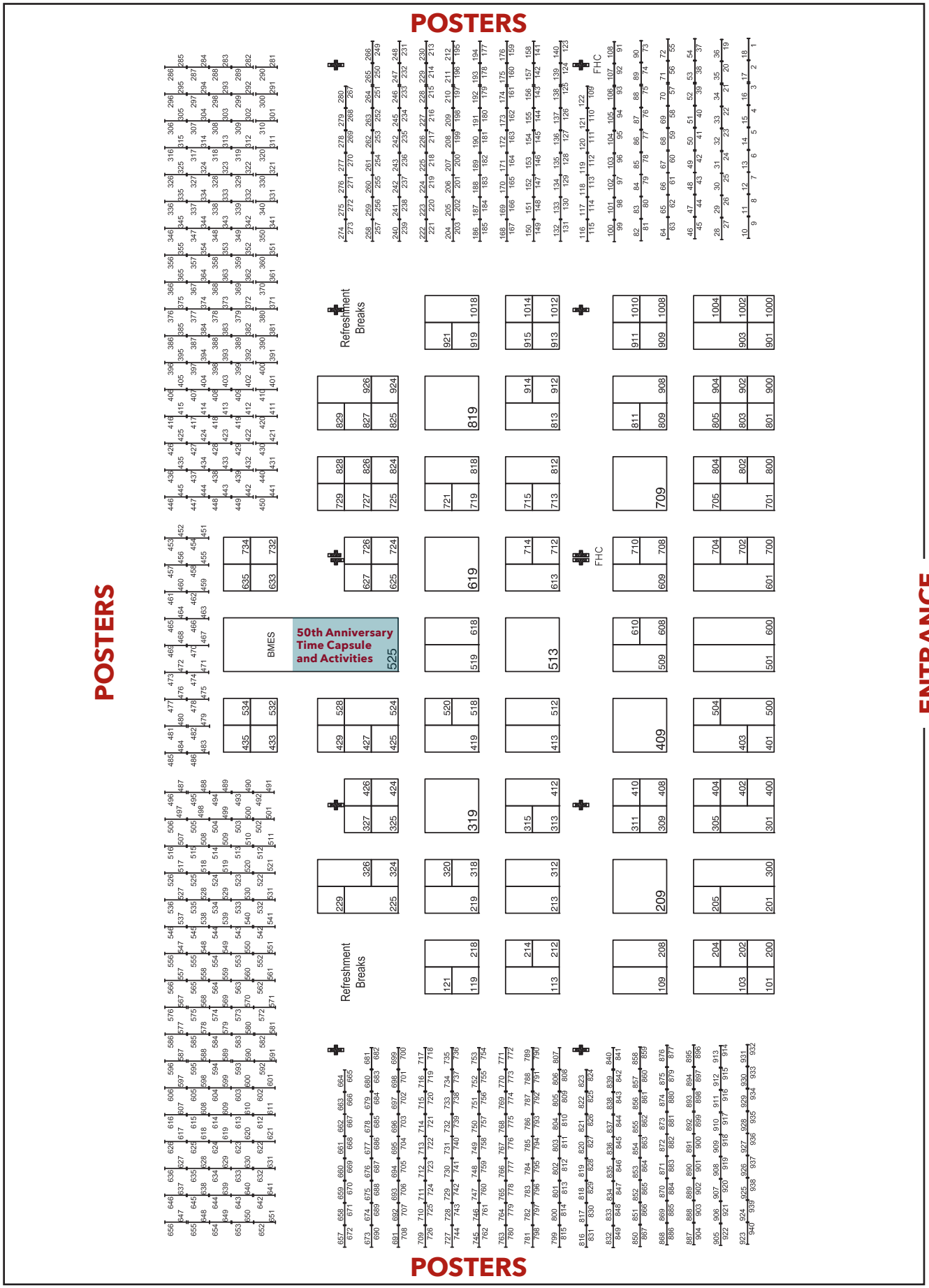
Siva Balasubramanian, Becton, Dickinson and Co. (siva_balasubramanian@bd.com)

Cheryl Liu, Stryker (cheryl.liu@stryker.com)

For more information visit: **www.bmes.org/medicaldevices**

2018 EXHIBITORS

Exhibit Hall Floorplan



Booth #1000

Advanced Solutions Life Sciences

1901 Nelson Miller Parkway
Louisville, KY 40223
Phone: 877-438-2741
Email: lehanna.sanders@advancedsolutions.com
Web: https://lifesciences.solutions/

Advanced Solutions Life Sciences is a global leader in 3D biofabrication and provides the complete workflow solution for designing, printing, assembling, and innovating 3D tissue models. Customers are empowered to advance the science of 3D bioprinting through our 3D modeling software program as well as our bioprinter/biofabricator technology platforms.

Booth #205

AIP Publishing

1305 Walt Whitman Road, Suite # 300
Melville, NY 11747
Phone: 516-576-2200
Email: journals@aip.org
Web: www.journals.aip.org

APL Bioengineering
A new open access journal covering all aspects of bioengineering research, from fundamental to translational. The Journal aims to publish transformational science and engineering research.

Booth #613/615

Arizona State University

501 E. Tyler Mall
Tempe, AZ 85287-9709
Phone: 480-727-6212
Email: Sbhse@asu.edu
Web: sbhse.engineering.asu.edu

The mission of the School of Biological and Health Systems Engineering at ASU is to create novel solutions to improve human health through research, education, and service to the community. The faculty in SBHSE has a wide range of research expertise with strengths in the following research areas: imaging, biosensors and instrumentation, molecular, cellular and tissue engineering, neural and rehabilitation engineering, synthetic biology and systems bioengineering.

Booth #633

Begell House, Inc. Publishers

50 North Street
Danbury, CT 06810
Phone: 203-456-6161
Email: meghan@begellhouse.com
Web: www.begellhouse.com/bdp

Begell House, Inc. is an academic STEM publisher of full-text journals, databases, references, eBooks, proceedings, and multimedia products, publishing the latest research across a broad spectrum of engineering and biomedical sciences. Our Biomedical Research Collection covers subjects such as biomedical engineering, cancer research, immunology, drug delivery, technobiology and biological sciences.

Booth #309

Binghamton University Department of Biomedical Engineering

P.O. Box 6000
Binghamton, NY 13902
Phone: 607-777-5774
Email: tglezen@binghamton.edu
Web: www.binghamton.edu/bme

The Binghamton University Department of Biomedical Engineering provides a state-of-the-art, affordable education. We train the next generation of biomedical engineers, cultivate leaders, and foster entrepreneurship through the integration of engineering principles, medical science, and biology towards an improved understanding of biophysical phenomena, healthcare systems, disease prevention, diagnostics, and treatment.

Booth #700

BIOPAC Systems, Inc.

42 Aero Camino
Goleta, CA 93117
Phone: 805-685-0066
Email: info@biopac.com
Web: www.biopac.com

Complete data acquisition and analysis solutions for biomedical engineering applications. BIOPAC is trusted by thousands of labs and cited in over 18,000 scientific articles. Wireless and wearable solutions: Mobita 32-CH, BioNomadix ECG, EEG, EMG, EOG, NICO, GSR, Pulse, Resp., and more! Powerful AcqKnowledge software has automated analysis and customizable display.

Booths #524/526

Boston University

44 Cummington Mall
Boston, MA 02215
Web: www.bu.edu/bme

Boston University's Department of Biomedical Engineering is one of the largest and oldest departments of its kind in the country. We attract exceptional students to our BS, MEng, MS and PhD degree programs, which are known for their highly quantitative approach. We have strengths in numerous research areas including Biomechanics and Mechanobiology, Molecular, Cellular and Tissue Engineering, Neural Engineering, Synthetic and Systems Bioengineering, Biomedical Imaging, Nanotechnology and Sensing, Computational Modeling and Data Sciences, and Biomaterials. We boast a wealth of research resources and have strong ties with the BU School of Medicine as well as other top medical research centers in the Boston area.

Booth #714

Brown University

171 Meeting Street, Box GB3
Providence, RI 02912
Phone: 401-863-3262
Email: bme@brown.edu
Web: www.brown.edu/bme

Booth #320

Bruker Nano, Inc.

9625 West 76th St.
Minneapolis, MN 55344
Phone: 952-835-6366
Email: ryanstromberg@bruker.com
Web: www.bruker.com/nanomechanical-testing

Bruker proudly offers the Hysitron© BioSoft™ In-Situ Indenter, a mechanical test instrument specifically designed for multiscale quantitative mechanical testing of biological materials and soft matter such as hydrogels. The BioSoft interfaces with existing inverted optical microscopes, synchronizing powerful mechanical and optical testing techniques to achieve a comprehensive understanding of the mechanics of biomaterials.

Booth #800

Cambridge University Press

1 Liberty Plaza
New York, NY 10006
Phone: 212-337-5000
Email: kramphal@cambridge.org
Web: www.cambridge.org/academic

Cambridge University Press' publishing in books and journals combines state-of-the-art content with the highest standards of scholarship, writing and production. Visit our stand to browse new titles, available at 20% discount, and to pick up sample copies of our journals. Visit our website to find out more about what we do: www.cambridge.org/academic

Booth #528

Carnegie Mellon University

5000 Forbes Avenue
Pittsburgh, PA 15213
Phone: 412-268-6222
Email: czapanta@cmu.edu
Web: www.bme.cmu.edu

The Department of Biomedical Engineering at Carnegie Mellon is built upon a long tradition of interdisciplinary research across departmental borders. Its decades-old research program emphasizes a collaborative network that balances four synergistic areas: basic engineering principles of living cells and tissues, engineering tools for biomedical research, interface between living and artificial materials, and clinical applications of biomedical engineering. Training programs encourage students to expand their vision and prepare them for a wide range of careers from academic research in biomedical sciences and engineering, to medical device entrepreneurship, to medical care.

Booths #301/303

Case Western Reserve University

10900 Euclid Avenue
Wickenden Building
Cleveland, OH 44106
Phone: 216-368-4094
Email: bmedept@case.edu
Web: http://bme.case.edu/

The Department of Biomedical Engineering at Case Western Reserve University offers distinctive programs ranging from the B. S. degree through the Ph.D. degree, including our innovative M.D./Ph.D. degree, M. D./M.S. degree, and our Biomedical Entrepreneurship program. Cutting-edge research thrusts include: biomaterials and tissue engineering, neural engineering and neuro-prostheses, biomedical imaging and sensing, transport and metabolic engineering, biomechanics, and targeted therapeutics.

Booth #727

CELLINK LLC

2000 Kraft Drive SW
Blacksburg, VA 24060
Phone: 858-344-2503
Email: kb@cellink.com
Web: www.cellink.com

CELLINK focuses on the development and commercialization of bioprinting technologies that allow researchers to 3D print human organs and tissues for the development of pharmaceutical and cosmetic products, and in the future, for clinical applications.

Booth #200

Center for Multimodal Evaluation of Engineered Cartilage Case Western Reserve University

2102 Adelbert Road
A.W. Smith 141C
Cleveland, OH 44106
Phone: 216-368-1029
Email: hari@case.edu
Web: http://ccmeec.case.edu/

The Center provides a nexus of capabilities where academic and industrial researchers from local, national, and international labs can access information, obtain assistance and training with planning and methods, and utilize specialized facilities to evaluate their engineered tissues. The Center provides "one-stop shopping" of technologies for comprehensive, multimodal evaluation of engineered tissue with emphasis on the following areas:

- Imaging, cell biology and metabolism, and mechanical characterization.
- Non-contact, non-destructive longitudinal testing.
- Exhaustive destructive testing for validation purposes.

Booth #901

Center for Engineering MechanoBiology (CEMB)

3231 Walnut Street, LRSM rm 113
Philadelphia, PA 19104
Phone: 215-898-3446
Email: walla3@seas.upenn.edu
Web: https://cemb.upenn.edu/

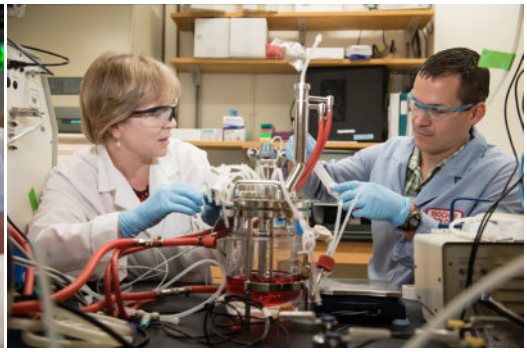
In an effort to develop the next generation of scientists and engineers, the CEMB seeks to provide opportunities to graduate students admitted through standard graduate group/graduate programs working with CEMB faculty at CEMB institutions. Our program also seeks motivated undergraduate students to participate in an intensive 10-week summer research program.

Booth #212

The City College of New York Biomedical Engineering

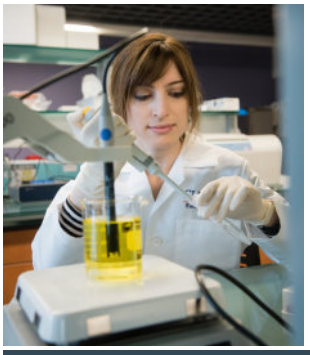
160 Convent Avenue
New York, NY 10031
Phone: 212-650-6707
Email: pcupid@ccny.cuny.edu
Web: bme.ccny.cuny.edu

The City College of New York—the founding college of CUNY. Founded in 1847, it has produced nine Nobel Prize winners and ranks seventh in the number of alumni who have been elected to the National Academy of Sciences. The Biomedical Engineering Department was established in 2002. BME at CCNY: Biomaterials/nanotechnology; Cardiovascular Engineering; Musculoskeletal Biomechanics; and Neural Engineering.


CLEMSON
BIOENGINEERING

Educating Leaders, Thinkers and Entrepreneurs since 1963



Research Areas:
- Biomaterials
- Regenerative Medicine
- Biomechanics
- Bioelectrical/Imaging

Degrees offered:
- BS
- MS
- MEng
- PhD

clemsonuniversitybioengineering

@CU_BioE

clemson.edu/bioengineering

Visit us at booth 708

Booth #708

Clemson University Department of Bioengineering

301 Rhodes Hall
Clemson, SC 29670
Phone: 864-656-7276
Email: mariam@clemson.edu
Web: www.clemson.edu/ces/bioe

With research labs, classrooms and innovation space for business partnerships at Clemson, Greenville, and Medical University of South Carolina, Clemson BIOE abounds with opportunities for personalized education, transformative research, networking with life sciences companies and investors and bold entrepreneurship that turns innovation into goods that are now improving health care in the US and abroad.

Booths #208/210

Columbia University Department of Biomedical Engineering

500 West 120th Street
351 Engineering Terrace
New York, NY 10027
Phone: 212-854-4460
Email: bme@columbia.edu
Web: www.bme.columbia.edu

The Department of Biomedical Engineering at Columbia University offers biomedical engineering education and research through B.S., M.S., Ph.D., and M.D./Ph.D. degree programs. Our department provides a surprising mix of the intellectual atmosphere of an Ivy League institution and the sense of community of a small college enriched by the diversity of New York City.

Booth #802

CTOR

129 Washington Street, Suite 300
Hoboken, NJ 07030
Phone: 551-225-1915
Email: chinapa@ctor.press
Web: innovation.ctor.press

CTOR is an innovative biomedical education, research and publishing hub in Hoboken, NJ.

EDUCATION: Translational Research Fellowship + MS or PhD in Biomedical Engineering.

RESEARCH: Our clinician-scientists hold patents for orthopedics and orthodontics devices.

PUBLISHING: We publish INNOVATION, an open access science journal that is FREE for authors and readers.

Booths #500/502

Cornell University

103 Weill Hall
Ithaca, NY 14853
Phone: 607-255-2573
Email: bh42@cornell.edu
Web: www.bme.cornell.edu

The Meinig School of Biomedical Engineering at Cornell University focuses on interdisciplinary research to achieve a quantitative understanding of human biology at all spatial and temporal scales with the goal of improving human health. The school has a close relationship with the Weill Cornell Medicine medical school and its associated hospitals in New York City, including an "Immersion Term", during which all BME Ph.D. students spend 7 weeks in a clinical experience at Weill Cornell Medicine. Cornell University is a comprehensive university with outstanding programs of teaching and research in all areas of human inquiry, which has its main campus at Ithaca in the beautiful Finger Lakes Region of upstate New York. The Meinig School has close collaborations with other departments on campus. For more information, please visit http://www.bme.cornell.edu/.

Booth #921

Thayer School of Engineering at Dartmouth Engineering in Medicine

14 Engineering Drive
Hanover, NH 03755
Phone: 603-646-2230
Email: sally.m.hull@dartmouth.edu
Web: engineering.dartmouth.edu

The Thayer School of Engineering booth will showcase Engineering in Medicine research, biomedical engineering internships and PhD education from among the exceptional programs at Dartmouth's engineering and medical schools. Located in Hanover, New Hampshire, Dartmouth offers a unique brand of biomedical engineering in engineering science education that fosters cross-disciplinary innovation.

Booth #121

Drexel University School of Biomedical Engineering, Science & Health Systems

3141 Chestnut Street, Bossone 718
Philadelphia, PA 19104
Phone: 215-895-2307
Email: ltw22@drexel.edu
Web: biomed.drexel.edu

The School of Biomedical Engineering, Science and Health Systems is a nationally recognized center of research and education. Areas of specialization include biomaterials, tissue engineering, biomechanics, human performance, biomedical imaging, drug delivery and bioinformatics. Multidisciplinary research is carried out through collaborations with clinical institutions in the Philadelphia area.

Booth #913

Duke University Department of Biomedical Engineering

101 Science Drive
1427 CIEMAS Building
Durham, NC 27708
Phone: 919-660-5131
Email: Kristen.rivers@duke.edu
Web: www.bme.duke.edu

Duke University's Department of Biomedical Engineering was founded in 1972. Since its creation the department consistently ranks among the very top undergraduate and graduate BME programs. Because of innovative faculty, novel research and an expanding focus on entrepreneurship and design, Duke BME continues to advance healthcare around the globe.

Booth #327

East Carolina University Department of Engineering

2116 Slay Building, Mail Stop 117
Greenville, NC 27858
Phone: 252-737-1026
Email: georges@ecu.edu
Web: www.ecu.edu/cs-cet/engineering/

The East Carolina University (ECU) Department of Engineering graduate program provides a foundation in biomedical engineering expertise and a trained workforce of leaders to support economic development, industry, and academia. ECU offers academic programs in engineering, medicine, dentistry, nursing, allied health, and business on one campus. Students will be engaged in multidisciplinary research focused on device and equipment design, and the application of innovative, advanced technologies to solve complex problems in the life sciences, medicine and health care industry. Degrees offered include MS in Biomedical Engineering, MS in Mechanical Engineering, MS in Kinesiology (concentration in biomechanics), PhD in Bioenergetics and Exercise Science, and professional degrees in Physical Therapy, Medicine, and Dental Medicine.

Booth #710

Engineering World Health

151 E. Rosemary St, Suite 201
Chapel Hill, NC 27514
Phone: 984-234-3686
Email: info@ewh.org
Web: www.ewh.org

Engineering World Health inspires, educates, and empowers the biomedical engineering community to improve health care delivery in the developing world. In partnership with universities, ministries of health, and others, EWH builds local capacity to maintain medical equipment, make repairs, and design low-cost medical technologies. Visit us to learn about EWH's Summer Institute and how you can make a lasting impact on healthcare in low-resource communities!

Booth #904

Exponent, Inc.

149 Commonwealth Drive
Menlo Park, CA 94025
Phone: 650-326-9400
Email: lemery@exponent.com
Web: www.exponent.com

Exponent is an engineering and scientific consulting firm that provides solutions to complex technical problems. Our multidisciplinary team of scientists, physicians, and engineers perform research and analysis in more than 90 disciplines. Our clients include a wide range of manufacturers, utilities, insurers, industry groups, government agencies, and law firms.

Booth #1002

Florida A&M University-Florida State University College of Engineering

2525 Pottsdamer Street, A131
Tallahassee, FL 32310
Phone: 850-410-6149
Email: chemical@eng.famu.fsu.edu
Web: www.eng.famu.fsu.edu/cbe

Offering MS and PhD degrees in BME, the FAMU-FSU Department of Chemical & Biomedical Engineering (CBE) pursues research in biomaterials & nanotechnology, bioimaging, and cell & tissue engineering. As part of a joint engineering college between Florida A&M and Florida State, CBE draws upon resources at both universities as well as the National High Magnetic Field Laboratory to provide unique BME opportunities. With the initiation of a new BS degree and building upon recent CBE external funding exceeding $10M, the BME program is expanding as we recruit motivated graduate students at all levels (starting PhD stipend of $28,000).

Booth #229

Florida International University

10555 West Flagler Street
Miami, FL 33174
Phone: 305-348-1409
Email: smanjarr@fiu.edu
Web: www.bme.fiu.edu

The Coulter Foundation endowed Department of Biomedical Engineering at Florida International University (FIU) in Miami is one of eleven in the State University System (SUS) of Florida with the full slate (BS, MS, PhD) of programs in biomedical engineering. Our established and growing BME department has strong relationships with FIU's Herbert Wertheim College of Medicine, the Brain Institute at the Miami Children's Hospital, and the many biomedical companies in South Florida. Due to our partnership with many premier clinical establishments, our students have the opportunity to participate in industry internships, as well as entrepreneurship and research experiences. The research areas of our industry leading Faculty include engineered tissue model systems, diagnostic bioimaging and sensor systems, and therapeutic and reparative neurotechnology.

Booth #732

Food and Drug Administration CDRH/Office of Device Evaluation

10903 New Hampshire Avenue
Building 66–Room 1659
Silver Spring, MD 20993
Web: https://www.FDA.gov/MedicalDevices/default.htm

Booth #402

General Anesthetic Services

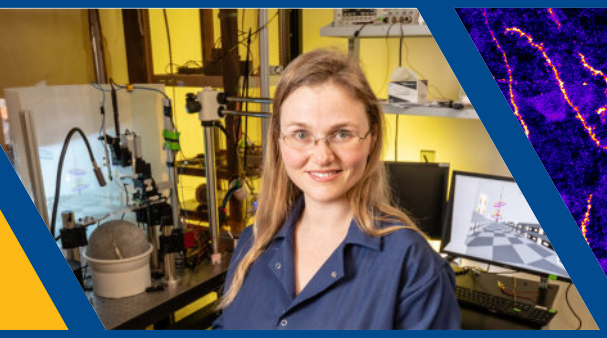
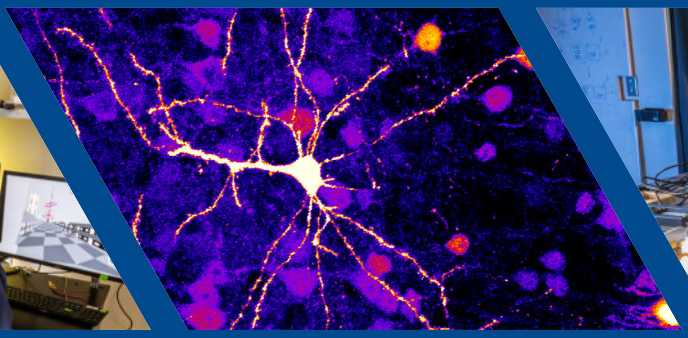
1900 Sleepy Hollow Road
South Park, PA 15129
Phone: 412-851-4390
Email: info@gas-worldwide.us
Web: www.generalanestheticservices.com

Georgia Tech

Wallace H. Coulter Department of Biomedical Engineering

Georgia Tech College of Engineering and Emory School of Medicine

EMORY UNIVERSITY


OUR DEGREES:

Georgia Tech B.S. in BME

Georgia Tech M.S. in BME

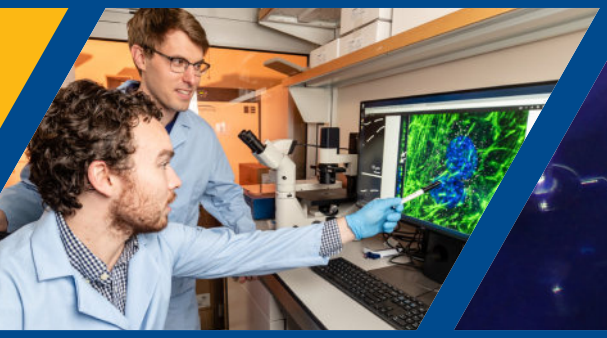
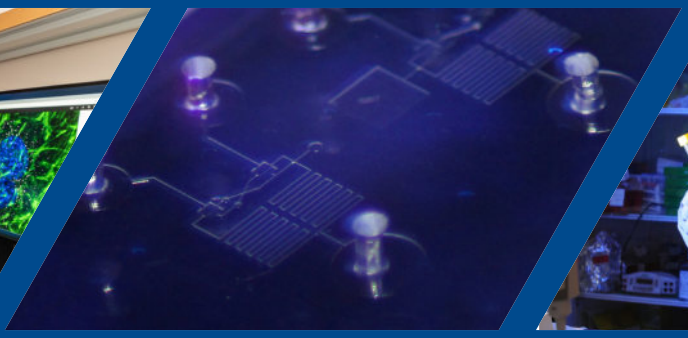
Georgia Tech M.S. in Biomedical Innovation and Development

Joint Georgia Tech & Emory University Ph.D. in BME

Georgia Tech, Emory University, & Peking University Ph.D. in BME

CELEBRATING

20 YEARS OF INNOVATION, INCLUSION & IMPACT


VISIT US AT BOOTH 209

facebook.com/TheWallace.H.Coulter.Department.BME • **bme.gatech.edu**

Booth #712

George Mason University Department of Bioengineering

4400 University Drive, MS 177
Fairfax, VA 22030
Phone: 703-993-5769
Email: tmcgowa2@gmu.edu
Web: www.bioengineering.gmu.edu

George Mason University's Department of Bioengineering offers unique research and educational experiences with collaborative links to local Washington DC industry, national laboratories, institutes, and clinical centers. The BS program offers concentrations in Biomedical Imaging and Devices, Computational Biomedicine, Biomaterials and Nanomedicine, and Neurotechnology and Computational Neuroscience, Health Care Informatics, Prehealth, and is ABET accredited. The PhD program, started in 2015, already has 20 students benefiting from full tuition and stipend support, and is ranked in the U.S. News & World Report. The department's 16 faculty members have a growing $20M funding in Biomedical Imaging and Devices, Computational Biomedicine, Biomaterials and Nanomedicine, Neurotechnology and Computational Neuroscience. Our PhD program is tailored to accept students from both Engineering and quantitative Sciences backgrounds as well students from the Biological Sciences by strengthening their current knowledge base and broadening it to include complementary skills needed to translate their research to clinical and industrial partners.

Booths #103/105

George Washington University Biomedical Engineering Department

800 22nd Street NW, Suite 5000
Washington, DC 20052
Phone: 202-994-0499
Email: jaimedrayton@gwu.edu
Web: www.bme.seas.gwu.edu

The George Washington University's School of Engineering & Applied Science offers graduate degrees and certificates in 11 fields of study within engineering and computer science, including biomedical engineering and regulatory biomedical engineering. All courses are held on the main campus in downtown Washington, D.C.

Booth #209

Georgia Institute of Technology and Emory University Wallace H. Coulter Department of Biomedical Engineering

313 Ferst Drive NW
Atlanta, GA 30332
Phone: 404-385-0482
Email: gradstudies@bme.gatech.edu
Web: www.bme.gatech.edu

The Wallace H. Coulter Department of Biomedical Engineering is a single department that combines the world-class resources of the Georgia Tech College of Engineering and the Emory University School of Medicine. Our undergraduate and graduate programs are consistently top-ranked, and our department offers joint PhD and interdisciplinary degrees, as well as thesis and non-thesis Master's degrees. There are opportunities for research in areas such as biomaterials and regenerative technologies, biomedical imaging and instrumentation, biomedical informatics and systems modeling, biomedical robotics, cancer technologies, cardiovascular engineering, immuno-engineering, and neuroengineering. The Master's Program in Biomedical Innovation and Development (MBID) focuses on needs-finding, engineering development, regulatory requirements, and commercialization of medical devices. Our faculty are committed to innovative graduate training that prepares a student for any career path.

Booth #627

Illinois Tech—BME

3205 South Dearborn Street
Wishnich Hall 314
Chicago, IL 60616
Phone: 312-567-5790
Email: jgeorgia@iit,edu
Web: www.iit.edu

The BME department at IIT offers a distinctive education and research program focusing on current and emerging human health problems. BME education includes three tracks: cell and tissue engineering, neural engineering, and medical imaging. Our research activities are enhanced through linkages with major medical facilities in the greater Chicago area.

Booth #912

Imperial College London Department of Bioengineering

Royal School of Mines, Exhibition Road
London SW7 2AZ United Kingdom
Phone: +44 (0) 20 7594 5179
Email: bioengineering@imperial.ac.uk
Web: imperial.ac.uk/bioengineering

Imperial College London is consistently one of the top 10 universities worldwide. Our Department of Bioengineering is the leading Department in the UK. Located in Central London, our diverse student and faculty body join us from around the globe.

Our research spans the breadth of bioengineering and we offer a range of academic and research opportunities. Our courses include two undergraduate degrees (MEng Biomedical Engineering and Molecular Bioengineering), two MSc programmes (MSc Biomedical Engineering and MSc Human and Biological Robotics), three MRes programmes (Bioengineering; Medical Device Design and Entrepreneurship; Neurotechnology) as well as PhD opportunities.

Booth #1008

IOP Publishing

Temple Circus, Temple Way
Bristol B51 6HG United Kingdom
Phone: +44 1179 297481
Email: custserv@iop.org
Web: www.ioppublishing.org

IOP Publishing provides a range of journals, books, websites, magazines, conference proceedings and services through which leading-edge scientific research is distributed worldwide. Extending to more than 20 journals IOP publishing's biophysics and bioengineering portfolio provides the essential content covering all areas of biophysics and biomedical engineering. Visit iopscience.org/biosciences.

Booth #826

iWorx Systems, Inc.

62 Littleworth Road
Dover, NH 03820
Phone: 800-234-1757
Email: info@iworx.com
Web: www.iworx.com

Teaching and Research systems include all of the necessary hardware and components for cardiovascular, respiratory, and neuromuscular physiology. Includes LabScribe software as well as drivers for Matlab, LabView, and C++. Used in over 1000 Colleges and Universities.

Booths #501/503/505

Johns Hopkins University Biomedical Engineering

720 Rutland Avenue, Traylor 406
Baltimore, MD 21205
Phone: 410-614-4280
Email: hlan1@jhmi.edu
Web: www.bme.jhu.edu

For over 50 years, the Johns Hopkins Department of Biomedical Engineering has been breaking new ground in biomedical discovery and innovation. Our graduate programs—consistently ranked #1 in the nation—provide a supportive and nurturing environment of collegiality and collaboration. Students work with leading scientists and clinicians to develop technologies that will transform medical practice and improve human health. Our MSE, PhD, and international Tsinghua-JHU dual MS degree programs prepare students for careers in research, medicine, or industry through a hands-on education in specialized BME disciplines: Biomedical Data Science, Biomedical Imaging & Instrumentation, Computational Medicine, Genomics & Systems Biology, Neuroengineering, and Regenerative & Immune Engineering. Our Center for Bioengineering Innovation and Design MSE program focuses on medical device development and commercialization. The Applied Biomedical Engineering MS program allows practicing engineers and scientists to enhance their engineering skills so that they can solve today's critical problems in biology and medicine.

Booth #801

Karger Publishers

26 West Avon Road
Unionville, CT 06085
Phone: 860-675-7834
Email: KargerUSA@karger.com
Web: www.karger.com

Booth #532

Keck Graduate Institute

535 Watson Drive
Claremont, CA 91711
Phone: 909-607-8590
Email: admissions@kgi.edu
Web: www.kgi.ed

Keck Graduate Institute (KGI) was founded in 1997 as the first higher education institution in the US dedicated exclusively to education and research in applied life sciences. KGI offers innovative programs that integrate life and health sciences, business, engineering, pharmacy, and genetics, with a focus on industry projects and collaboration.

Booths #519/521

Korea Institute of Science and Technology (KIST)

5, Hwarangno 14-gil, Seongbuk-gu
Seoul 02792 Republic of Korea
Phone: +82-2-958-6142
Email: alberto@kist.re.kr
Web: www.kist.re.kr

Booth #324

Lehigh University Bioengineering

111 Research Drive, Room D325
Bethlehem, PA 18015
Phone: 610-758-4091
Email: inbioe@lehigh.edu
Web: www.lehigh.edu/bioe/

The Department of Bioengineering continues Lehigh's tradition of world-class excellence in education and research, offering a full range of coursework and research opportunities, from nanoscale to systems, for BS, MS and PhD students. Our faculty and students focus on the advancement of knowledge in three main target areas: Biocomputations and Modeling, Diagnostics, Sensors & Devices, and Materials & Therapies, for application to a wide range of biopharmaceutical, biomedical and health-related industries. The highly collaborative environment at Lehigh fosters interdisciplinary engagement across departmental boundaries and beyond the university campus, capitalizing on Lehigh's proximity to New York City and Philadelphia.

Booth #705

Mary Ann Liebert, Inc.

140 Huguenot Street
New Rochelle, NY 10801
Phone: 914-740-2100
Email: info@liebertpub.com
Web: www.liebertpub.com

Tissue Engineering is the preeminent, biomedical journal advancing the field with cutting-edge research and applications on all aspects of tissue growth and regeneration. This multidisciplinary journal is divided into three parts, providing 42 annual issues of groundbreaking scientific peer-reviewed research, reviews, methods, special issues, industry updates, and more that will enable contributions to the ultimate care of patients. The official journal of TERMIS.

Booth #829

Louisiana Tech University Biomedical Engineering

818 Nelson Avenue
Ruston, LA 71272
Phone: 318-257-4420
Email: ahill@latech.edu
Web: coes.latech.edu/cbers/biomedical-engineering-research

Are you looking for a graduate program in a research university with small classes and friendly students and faculty? Please talk to us! Our research areas include neural engineering/ neuroscience; nanotechnology/ applied biotechnology; biosensors; biosignal processing, microfluidic chip/biomarker discovery, advanced optical imaging; and cell, molecular and tissue engineering. Plus, we have clinical partners in epilepsy, anesthesia, traumatic brain injury, and cancer treatment.

Booth #619

Marquette University / Medical College of Wisconsin

8701 Watertown Road
Milwaukee, WI 53226
Phone: 414-288-3375
Email: contact@mcw.marquette.edu
Web: www.mcw.marquette.edu/biomedical-engineering

The Marquette University and Medical College of Wisconsin Department of Biomedical Engineering features innovative programs in the following research areas: neurosystems and neurorehabilitation; biomechanics, including trauma and orthopaedic rehabilitation; Imaging, Informatics and Analytics; cardiovascular and pulmonary physiology and devices; analytics; computational biology and systems biology; molecular systems and modeling.

Booths #512/514

Mayo Clinic Graduate School of Biomedical Sciences Biomedical Engineering & Physiology

200 First Street, SW
SMH JO 4-184
Rochester, MN 55905
Phone: 507-250-6280
Email: kingsleyberg.shirley@mayo.edu
Web: www.mayo.edu/gs/programs/phd/biomedical-engineering

The Graduate Program in Biomedical Engineering & Physiology at Mayo Clinic Graduate School of Biomedical Sciences has a long, rich history with a tradition of research that spans interdisciplinary boundaries and routinely connects the engineering and physical sciences to the biological sciences and clinical practice. The Mayo Clinic Graduate School offers graduate programs in various fields leading to PhD and MD/PhD degrees. The Graduate Program in Biomedical Engineering & Physiology offers a wide range of research opportunities from basic discovery science to clinical and translational research. Students are provided the necessary quantitative tools to become leaders in diverse fields of biomedical sciences.

Booth #319

McGill University Department of Bioengineering

817 Sherbrooke Street West, Room 270
Montreal, Quebec H3A 0C3 Canada
Phone: 514-398-7138
Email: info.bioeng@mcgill.ca
Web: www.mcgill.ca/bioengineering

The Department of Bioengineering is the newest department to join McGill University's renowned Faculty of Engineering. Faculty members are carrying out experimental and computational research in biological materials and mechanics; biomolecular and cellular engineering; and biomedical, diagnostics, and high throughput screening. The Department runs an interdisciplinary graduate program in Biological and Biomedical Engineering (BBME: www.mcgill.ca/bbme) in partnership with the Department of Biomedical Engineering in the Faculty of Medicine.

Booth #915

Michigan State University Department of Biomedical Engineering

775 Woodlot Drive, 4000 Bio Engineering Building
East Lansing, MI 48824
Phone: 517-884-6976
Email: bme_info@egr.msu.edu
Web: www.egr.msu.edu/bme/

The BME department at Michigan State University offers competitive research-oriented Masters and PhD programs with flexible and personalized curriculums. The department is housed in a state-of-the-art research facility and brings together exceptional faculty with appointments across 14 departments, fostering a collaborative environment and interdisciplinary research in the areas of Biomedical Devices, Imaging, Precision Health, Neural Engineering, Translational Medicine, Developmental, Stem Cell, Chemical, Synthetic, Systems, Cancer, and Computational Biology. Additionally, the department maintains strong partnerships with leading medical research centers in the area and beyond.

Booth #713

Michigan Technological University

1400 Townsend Drive
Houghton, MI 49931
Phone: 906-487-2772
Email: slsedar@mtu.edu
Web: www.mtu.edu/biomedical

Located in the beautiful Upper Peninsula of Michigan, the Department of Biomedical Engineering at Michigan Technological University conducts world-class research at the interface of medicine, biology, and engineering, while educating the next generation of biomedical engineers by offering B.S., M.S., and Ph.D. degrees. The BME Department at MTU leverages the University's strong and rich history of engineering education and research. We create the future of medicine.

Booth #825

Nanoscience Instruments

10008 S. 51st Street, Suite 110
Phoenix, AZ 85044
Phone: 480-758-5400
Email: info@nanoscience.com
Web: www.nanoscience.com

Nanoscience Instruments offers a variety of instrumentation for academic and industrial R&D, including: electrospinning equipment with climate control to ensure reproducible experiments, desktop SEMs, contact angle meters, nanoindenters, tensile testers and QCM-D. We also offer analytical services to support your research, production and quality assurance needs. www.nanoscience.com

Booth #704

Nanoscribe GmbH

Hermann-von-Helmholtz-Platz 1
Eggenstein-Leopoldshafen 76344 Germany
Phone: +49 721 981 980 0
Email: info@nanoscribe.com
Web: www.nanoscribe.com

Nanoscribe's Photonic Professional GT is the world's highest resolution 3D-printer for nano- and micrometer fabrication. It enables production of scaffolds, filters and surfaces with unique characteristics for tissue engineering, medical devices, life sciences, micro-optics, and microfluidics.

Booth #721

National Institute of Biomedical Imaging & Bioengineering National Institutes of Health

31 Center Drive, Room 1C14
Bethesda, MD 20892
Phone: 301-496-9208
Email: coneyjohnsons@mail.nih.gov
Web: http://www.nibib.nih.gov

The mission of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) is to improve human health by leading the development and accelerating the application of biomedical technologies. The Institute is committed to integrating the physical and engineering sciences with the life sciences to advance basic research and medical care. Stories of exciting research breakthroughs are told through video and web content at www.nibib.nih.gov. In addition to funding research, NIBIB supports a broad range of training programs from undergraduate to post-doctoral students. These programs are designed to support researchers throughout the career continuum, increase the number of clinician-scientists, and enhance the participation of underrepresented populations in biomedical imaging and bioengineering research.

Booth #311

National Science Foundation (NSF)

2415 Eisenhower Avenue
Alexandria, VA 22314
Phone: 703-292-5111
Email: mgrimm@nsf.gov
Web: www.nsf.gov

Programs within the NSF Engineering Directorate support innovative, fundamental research and education in biomedical engineering. Ten core programs as well as numerous solicitations include biomedical engineering as part of their portfolios. Program directors from Engineering of Biomedical Systems, Disability & Rehabilitation Engineering, Biosensors, and Biomechanics & Mechanobiology–along with the CBET (Chemical, Bioengineering, Environmental & Transport Systems) Division Director–will be available to answer questions about proposals, areas for funding, timelines and expectations while writing, and common author mistakes.

Booth # 427

National Society of Black Engineers

205 Daingerfield Road
Alexandria, VA 22314
Phone: 703-549-2207
Email: ywatson@nsbe.org
Web: www.nsbe.org

With more than 500 chapters and more than 19,000 active members in the U.S. and abroad, the National Society of Black Engineers (NSBE) is one of the largest student-governed organizations based in the United States. NSBE, founded in 1975, supports and promotes the aspirations of collegiate and pre-collegiate students and technical professionals in engineering and technology. NSBE's mission is "to increase the number of culturally responsible black engineers who excel academically, succeed professionally and positively impact the community." For more information, visit www.nsbe.org.

Booths #1018/1020

New Jersey Institute of Technology (NJIT) Department of Biomedical Engineering

University Heights
Newark, NJ 07102
Phone: 973-596-5476
Email: rocha@njit.edu
Web: http://biomedical.njit.edu

NJIT's Biomedical Engineering Department (BME) is among the top producers of BME degrees in the region with over 300 undergraduate, 100 master's and 50 doctoral students. Our Ph.D. program is delivered jointly with the Graduate School of Biomedical Science at Rutgers New Jersey Medical School. In 2010, the National Research Council ranked our Ph.D. program 26 out of 76 nationally for curriculum quality and student accomplishments. Our popular master's degree program can be customized providing you the opportunity to meet your academic and professional goals. Our undergraduate program is ABET accredited and attracts a diverse student body with the highest GPA and SAT scores at NJIT. We are a research-active department in areas of head injury biomechanics, neuro-rehabilitation, direct brain interfacing, biomedical imaging, neural signal processing, cellular/molecular tissue engineering and biomaterials.

Booth #404

Northwestern University—BME

2145 Sheridan Road
Evanston, IL 60208
Phone: 847-467-1213
Email: casey.ankeny@northwestern.edu
Web: mccormick.northwestern.edu

With cutting-edge research in Biomaterials and Regenerative Medicine, Imaging and Biophotonics, and Neural Engineering and Rehabilitation, Northwestern University BME attracts top faculty and students alike. Research takes place on the main campus in Evanston and on the medical school campus in downtown Chicago.

Booths #926/928

The Ohio State University Department of Biomedical Engineering

1080 Carmack Road
401 Bevis Hall
Columbus, OH 43210
Phone: 614-292-7152
Email: harmon.105@osu.edu
Web: www.bmeosu.edu

Offering B.S., M.S., Ph.D., and M.D./Ph.D. degrees with research programs in 7 different biomedical engineering domains in state-of-the-art facilities and with strong collaborations with the OSU Wexner Medical Center, Davis Heart and Lung Research Institute, Nationwide Children's Hospital and the OSU Comprehensive Cancer Center featuring the 3rd largest Cancer Hospital in the nation.

Booth #1012

Optics11 Inc.

396 University Avenue
Westwood, MA 02062
Phone: 781-613-2030
Email: info@optics11.com
Web: www.optics11.com/products/lifescience

Optics11 makes fiber optic based nanoindenters for characterizing the micro- and nanoscale mechanical properties of samples in air or liquid conditions. Our systems work fast, are easy-to-use, match AFM sensitivity, and produce excellent signal-to-noise ratios. Our devices also generate maps of viscoelastic properties of complex 3D printed shapes, small volumes, or thin films.

Booth #924

Oregon Health & Science University (OHSU) Department of Biomedical Engineering

3303 SW Bond Ave., CH13B
Portland, OR 97239
Phone: 503-418-9331
Email: bennetdi@ohsu.edu
Web: www.ohsu.edu/bme

The BME graduate program with the OHSU School of Medicine provides both breadth and depth in human (patho)physiology through training in measurement and data science and computational biology approaches to address unmet clinical needs. The curriculum is tailored for each student based upon their background, research direction and career goals.

Booth #119

Oregon State University School of Chemical, Biological and Environmental Engineering

116 Johnson Hall
Corvallis, OR 97331
Phone: 541-737-2491
Email: cbee-gradinfo@oregonstate.edu
Web: cbee.oregonstate.edu

Oregon State University's offers M.Eng., M.S., and Ph.D. degrees via its new interdisciplinary graduate program in bioengineering administered by the School of Chemical, Biological, and Environmental Engineering. Faculty from across the university participate. The program provides broad exposure through coursework and seminars, as well as a focused research experience.

Booth #520

The Pennsylvania State University

205 Hallowell Building
University Park, PA 16802
Phone: 814-865-1407
Email: glm108@psu.edu
Web: www.bme.psu.edu

The Penn State Department of Biomedical Engineering and the Intercollege Graduate Degree Program in Bioengineering are proud to offer B.S., M.S. and Ph.D. degrees. Our mission is to educate students to become world-class engineers who contribute to biomedical engineering development through innovative solutions to problems in biotechnologies, medicine and the life sciences. The graduate program offers strong integration with many other disciplines to increase the breadth of our uniquely trained faculty and specialized facilities, enable cutting-edge research in fundamental bioengineering, biomaterials, physical, medical and life sciences with a goal to translate discovery from academia to society. Come by for a visit. We look forward to meeting you!

Booth #425

Poly-Med, Inc.

51 Technology Drive
Anderson, SC 29625
Phone: 864-328-0008
Email: Seth.McCullen@poly-med.com
Web: www.poly-med.com

Poly-Med is the leading developer of bioresorbable polymers and 3D printed solutions. We help innovative medical device companies focused on improving patient outcomes. Poly-Med designs, develops, and manufactures superior materials to get customer products to market, in the most efficient manner, with the greatest improvement to quality of life.

Booth #1010

Promocell GmbH

Sickingenstr.63/65
Heidelberg, Germany 69126
Phone: 1-866-251-2850
Email: support.us@promocell.com
Web: www.promocell.com

PromoCell is a premier manufacturer of cell culture products. PromoCell is widely recognized for its broad range of primary human cells, stem cells and blood cells, as well as optimized cell culture media for primary cells and cancer cell lines. Scientists worldwide use our PromoCell products in basic and applied biomedical research, including advanced biomedical engineering applications.

Booths #509/511

Purdue University Weldon School of Biomedical Engineering

206 S. Martin Jischke Drive
West Lafayette, IN 47907-2032
Phone: 765-494-2995
Email: WeldonBMEGrad@purdue.edu
Web: www.purdue.edu/bme

The Weldon School of Biomedical Engineering at Purdue recruits exceptional MS and PhD students for nationally-funded graduate programs in four signature areas of expertise: imaging, instrumentation, engineered biomaterials and biomechanics, and quantitative cellular and systems engineering. We are continuing to grow our diverse faculty and clinical partnerships that distinguish us in biomedical entrepreneurship, regulatory science, and translational impact.

Booth #1004

RADIANQBIO Co., Ltd.

#1303 Halla-Sigma Valley
53, Gasan digital 2-ro, Geumcheon-gu
Seoul 08588 Korea
Phone: +82-2-852-1122
Email: info@qbiosens.com
Web: www.qbiosens.com

We are accelerating our development in various on-site diagnosis application platform technologies & products, based on our cutting-edge Bio-MEMS technology. Prompt Diagnosis of Diseases using Whole Blood r QUBE™-Portable Blood Separation & Lysis Kit r QPLEX™-Multiplex Disease Detector Food Safety with Pre-detection of Virus r QPRE™-Foodborne Virus POCT Sensor

Booth #805

Reed Technology

7 Walnut Grove Drive
Horsham, PA 19044
Phone: 215-734-2115
Email: sschaffer@reedtech.com
Web: www.reedtech.com

Booth #715

Rensselaer Polytechnic Institute

110 8th Street, BMED JEC7049
Troy, NY 12180
Phone: 518-276-6548
Email: bme@rpi.edu
Web: www.bme.rpi.edu

Rensselaer Polytechnic Institute is the nation's oldest technological research university educating outstanding academics, industry leaders and research scientists. Stop by and learn about graduate programs (MS and PhD) as well as opportunities for graduate students (NIH Predoctoral Training Program, NSF iCORPs site) and Undergraduates (REU in Bioengineering and Biomanufacturing). (bme.rpi.edu)

Booths #300/302/304

Rice University Department of Bioengineering

6100 Main Street
Houston, TX 77005-1892
Phone: 713-348-5869
Email: bioeng@rice.edu
Web: www.bioe.rice.edu

Rice University's Department of Bioengineering is a top-tier teaching and research institution with graduate programs that lead to an MBE, PhD, or a joint MD/PhD with Baylor College of Medicine. Situated next to the Texas Medical Center, we offer education and research opportunities in biomaterials and drug delivery, biomedical imaging and diagnostics, cellular and biomolecular engineering, computational and theoretical bioengineering, systems and synthetic biology, and tissue engineering and biomechanics.

Booth #702

Richardson Healthcare

8190 Regent Parkway
Fort Mill, SC 29715
Phone: 702-259-4005
Email: kotarola@rell.com
Web: www.rellhealthcare.com

Richardson Healthcare offers diagnostic imaging equipment and replacement parts from the top manufacturers across all modalities, including Toshiba, Siemens, GE, and Philips.

Booths #609/611

Rutgers, The State University of New Jersey

599 Taylor Road
Piscataway, NJ 08854
Phone: 848-445-4500
Email: shreiber@soe.rutgers.edu
Web: http://bme.rutgers.edu

The Rutgers Department of Biomedical Engineering (BME) is a vibrant and dynamic enterprise of scholarship, learning, and technology development. Located in the heart of New Jersey's "Cure Corridor", BME offers a remarkably diverse array of opportunities for undergraduate, graduate, and postgraduate training and research in molecular systems bioengineering, biomaterials and tissue engineering, bionanotechnology, biomechanics, rehabilitation engineering, and biomedical imaging. The program offers a BS degree at the undergraduate level, and PhD, MS, and MEng degrees at the graduate level, the last of which is also offered 100% online. The program also offers joint Masters of Business and Science (MBS) and MD-PhD degrees, as well as a certificate in Medical Device Design and Development.

Booth #424

Somni Scientific

1900 Sleepy Hollow Road
South Park, PA 15129
Phone: 877-647-3625
Email: info@gas-worldwide.us
Web: www.comniscientific.com

SOMNI Scientifics roots are in both human and veterinary anesthesia. SOMNI personnel have been at the cutting edge of vaporizer and anesthesia system design for over 35 years.

We have worked alongside the world's largest pharmaceutical companies and are involved in the advancement in animal research equipment. SOMNI Scientific's trained and knowledgeable staff bring unparalleled diversity and education throughout the veterinary and animal research field.

Booth #828

South Eastern Nanotechnology Infrastructure Corridor Georgia Institute of Technology

Marcus Nanotechnology Building
345 Ferst Drive
Atlanta, GA 30332
Phone: 404-894-1865
Email: christa.ernst@ien.gatech.edu
Web: www.senic.gatech.edu

The Southeastern Nanotechnology Infrastructure Corridor (SENIC) is a partnership between the Institute for Electronics and Nanotechnology (IEN) at the Georgia Institute of Technology and the Joint School of Nanoscience and Nano–engineering (JSNN)—an academic collaboration between North Carolina A&T State University and the University of North Carolina at Greensboro. SENIC combines the infrastructure strengths of both Georgia Tech and the JSNN to provide users access to one of the largest and most modern nano-fabrication and nano-characterization tool sets in the country. Additionally, SENIC conducts educational and public outreach on the role that nanoscale science and engineering will contribute to solving societal, environmental and economic challenges.

Booth #909

Springer Nature

233 Spring Street
New York, NY 10013
Phone: 212-460-1500
Email: merry.stuber@springer.com
Web: www.springer.com

Springer is one of the world's leading global research, educational and professional publishers, home to an array of respected and trusted brands providing quality content through a range of innovative products and services. Springer is the world's largest academic book publisher and numbers almost 13,000 staff in over 50 countries.

Booth #202

Stevens Institute of Technology

1 Castle Point Terrace
Hoboken, NJ 07030
Phone: 201-216-5000
Email: mgray@stevens.edu
Web: www.stevens.edu

Booth #313

Stony Brook University Biomedical Engineering Department

101 Bioengineering Building
Stony Brook, NY 11794-5281
Phone: 631-632-1480
Email: david.rubenstein@stonybrook.edu
Web: www.bme.stonybrook.edu

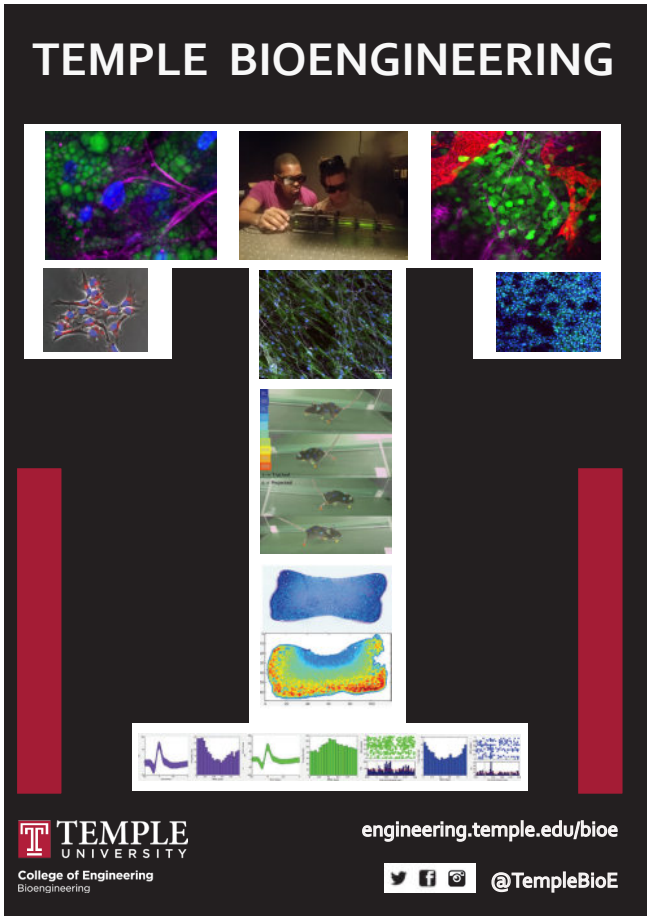
The mission of the BME department at Stony Brook University is to fully integrate the cutting edge of engineering and physical sciences with state-of-the-art biology to advance our understanding of biomedical problems, and to drive the development of therapeutics, diagnostics and medical devices. Areas of research expertise include biomechanics, bioelectricity, tissue engineering, bioinstrumentation, cellular and molecular bioengineering, and bioimaging.

Booth #625

Syracuse University Department of Biomedical and Chemical Engineering

329 Link Hall
Syracuse, NY 13244
Phone: 315-443-1931
Email: jhhender@syr.edu
Web: syr.edu

Prospective graduate students and faculty can learn about our graduate programs that offer cutting edge, multidisciplinary research and education in biomedical engineering in a truly collaborative setting within the Syracuse Biomaterials Institute. Interact with our faculty and graduate students on a one-to-one basis and learn about financial aid opportunities.



Booth #724

Temple University College of Engineering, Department of Bioengineering

1947 North 12th Street
Philadelphia, PA 19122
Phone: 215-204-3404
Email: doreen.aiello@temple.edu
Web: http://engineering.temple.edu/bioengineering

In the Department of Bioengineering at Temple University, our faculty aim to help our undergraduate and graduate students sculpt their ideas, we teach and train them to understand health-related problems, to develop possible solutions through fundamental, knowledge-based paths, and to implement those solutions through translational methods. Our students are equally versed in quantitative, engineering approaches to cellular-based natural sciences (biology, physiology, chemistry) and in devices-based skills (programming, data science, instrumentation). Through education and research, we will prepare new generations of versatile, problem oriented, multiscale, entrepreneurial engineers, who can easily step out of their expertise to integrate skill sets with information from other fields.

Booths #701/703

Texas A & M University Department of Biomedical Engineering

3120 TAMU
College Station, TX 778435
Phone: 979-845-5532
Email: bmen@tamu.edu
Web: http://engineering.tamu.edu/biomedical

The Department of Biomedical Engineering at Texas A&M University provides degree programs allowing students to impact health outcomes in the areas of biomechanics, biomaterials, tissue engineering, biomolecular and cellular engineering, optics, sensing and imaging, and more. The department's award-winning faculty have strong collaborations with the Colleges of Medicine and Veterinary Medicine, as well as industry. Offering graduate degrees at the master's and doctoral levels, this program provides a range of exceptional academic experiences.

Booths #113/115

Tufts University Biomedical Engineering

4 Colby Street
Medford, MA 02155
Phone: 614-627-2580
Email: bme@tufts.edu
Web: www.engineering.tufts.edu/bme

Biomedical Engineering at Tufts University draws from core disciplines such as engineering, biology, computer science, physics, chemistry, and physiology emphasizing an interdisciplinary approach to research and education. Strong emphasis is placed on interactions with faculty in Arts and Sciences and the professional schools. The Tissue Engineering Resource Center (TERC) was initiated in August of 2004 as a Resource Center supported through the National Institutes of Health P41 program. The core themes in the Center focus on functional tissue engineering achieved through a systems approach–integrating cells, scaffolds and bioreactors to control the environment *in vitro* for translation *in vivo*.

Booths #109/111

Tulane University Department of Biomedical Engineering

6823 St. Charles Avenue.
New Orleans, LA 70118
Phone: 504-865-5897
Email: bmen-info@tulane.edu
Web: www.bmen.tulane.edu

Booth #919

The University of Akron Biomedical Engineering Department

Auburn Science and Engineering Center
Room 275
Akron, OH 44325-3901
Phone: 330-972-6977
Email: bmegrad@uakron.edu
Web: bme.uakron.edu

The University of Akron offers MS and PhD degree programs in BME. These programs have an individualized curricular approach, designed in coordination with each student's career plans. BME faculty are engaged in both basic and translational research areas, including, but not limited to, optics, microtechnology, biomaterials, biomechanics, and regenerative medicine.

Booths #312/314

The University of Alabama at Birmingham Biomedical Engineering

1670 University Boulevard, VH G094
Birmingham, AL 35294
Phone: 205-934-8420
Email: jcalma@uab.edu
Web: www.uab.edu/engineering/bme

The BME department at The University of Alabama at Birmingham offers BS, MS, and PhD degrees. The MS program offers an optional Certificate in Life Sciences Entrepreneurship. The primary interdisciplinary research programs include tissue engineering, biomechanics, and cardiac electrophysiology. The department currently includes 20 primary and 60 secondary faculty members. UAB BME is ranked 4th in the U.S. in NIH funding to joint departments of biomedical engineering by the Blue Ridge Institute for Medical Research.

Booth #315

The University of Arizona Biomedical Engineering

P.O. Box 210020
Tucson, AZ 85721
Phone: 520-626-9134
Email: aanduaga@email.arizona.edu
Web: https://engr.bme.arizona.edu

Booth #401

University of Arkansas Biomedical Engineering

790 West Dickson Street, Room 120
Fayetteville, AR 72701
Phone: 479-575-4786
Email: bmegin@uark.edu
Web: www.biomedical-engineering.uark.edu

The Biomedical Engineering Program at the University of Arkansas offers MS and PhD degrees. Our active faculty has research programs in: Organ Regeneration; Cell and Molecular Imaging; Nanobiotechnology; Molecular Genetics and Cell Biology in Disease Prevention; Biomaterials; Tissue Engineering; and Vaccine and Immunotherapy Delivery Systems. Stop by our booth and learn how well qualified students can earn $10,000 to $20,000 per year on top of standard assistantship stipends!

Booth #319

The University of British Columbia School of Biomedical Engineering

2222 Health Sciences Mall
Vancouver, British Columbia V6T 1Z3 Canada
Phone: 604-822-0367
Email: admin@bme.ubc.ca
Web: www.bme.ubc.ca

The School of Biomedical Engineering at University of British Columbia, established in 2017 as a strategic partnership between the Faculties of Applied Science and Medicine, is comprised of more than 20 faculty members who are research leaders in areas including molecular and cellular engineering, biological imaging, computational biology and human interfacing devices. We have over 100 graduate students, offering MEng, MASc and PhD programs and will welcome the first cohort of 60 undergraduate students in September 2018.

Booth #804

University at Buffalo, The State University of New York The Department of Biomedical Engineering

332 Bonner Hall
Buffalo, NY 14260
Phone: 716-645-8500
Email: be-grad@buffalo.edu
Web: http://engineering.buffalo.edu/bme.html

The Department of Biomedical Engineering is part of the School of Engineering and Applied Sciences and the Jacobs School of Medicine and Biomedical Sciences. We offer BS, MS and PhD degrees with specialties in Imaging, Biomaterials and Devices, and Tissue Engineering. Our faculty have attracted significant funding from federal and state sources, as well as private foundations. Our close collaborations with other medical departments such as Pathology, Orthopedics, Surgery, and Neurosurgery provide an immersive experience for our students. Stop by our booth for a sweet treat and talk with a current student or staff member to learn more about UB BME.

Booth # 319

University of Calgary

2500 University Drive NW
Calgary, Alberta T2N 1N4 Canada
Phone: 403-220-4818
Email: bmegrad@ucalgary.ca
Web: www.ucalgary.ca/bme

University of Calgary is a world leader. We have over 250 Biomedical Engineering researchers working in multidisciplinary teams at more than 25 unique, state-of-the-art facilities across campus. The integrated nature of engineering, kinesiology, medicine, veterinary medicine, science and nursing at the University of Calgary is a unique strength in Canada.

Booth #610

University of California, Berkeley

306 Stanley Hall #1762
Berkeley, CA 94720-1762
Phone: 510-664-4472
Email: bioeng@berkeley.edu
Web: http://bioeng.berkeley.edu/

Booths #201/203

University of California, Davis

One Shields Avenue, GBSF 2303
Davis, CA 95616
Phone: 530-752-1033
Email: bme@ucdavis.edu
Web: www.bme.ucdavis.edu

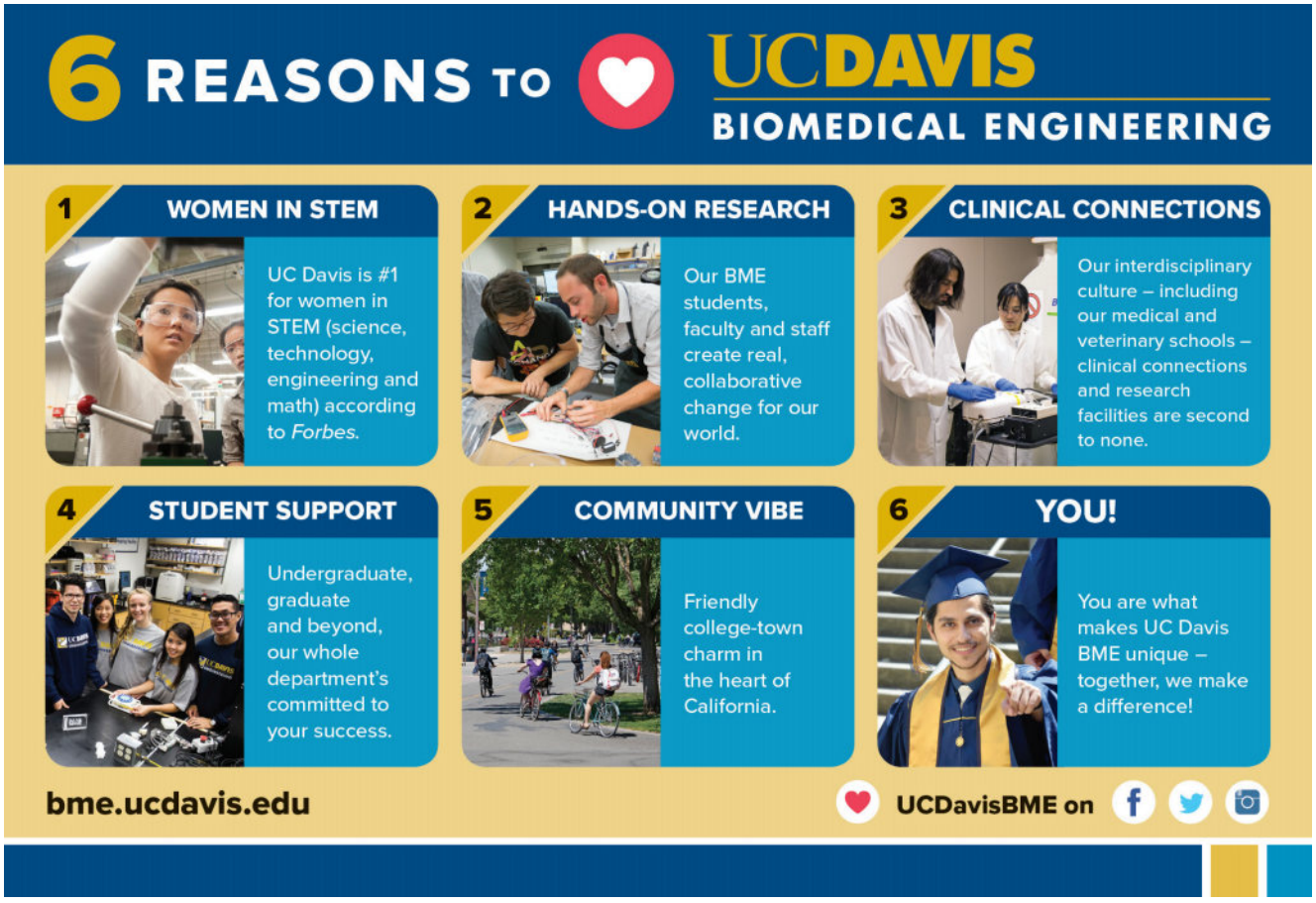
BME at UC Davis combines exceptional teaching with state-of-the-art research to prepare students for careers in academics and industry. We are ABET-accredited and home to a world-class medical imaging center and cutting-edge 3D prototyping facility. One of our core values is the belief that biomedical engineers should learn by doing. At UC Davis we emphasize translation through our close relationships with clinicians, both at the UC Davis Medical Center and at the School of Veterinary Medicine. The success of our faculty at attracting funding generates many opportunities for graduate-student research and industry partnerships. We offer BS, MS and PhD degrees. Visit our website or drop by our booth to learn about our programs in bioinformatics, biomechanics, cellular and molecular systems, imaging, synthetic biology, tissue engineering and regenerative medicine. Keep up with our latest news by following UCDavisBME on Facebook, Twitter and Instagram.

Booths #813/815

University of California, Irvine

3120 Natural Sciences II
Irvine, CA 92697-2715
Phone: 949-824-3494
Email: bme@uci.edu
Web: www.eng.uci.edu/dept/bme

The goal of the UCI biomedical engineering program is to train students for 21st century jobs in the biomedical and biotechnology industries, healthcare professions and academia. Located at a world-class research university deep in the heart of the nation's biomedical device and technology capital, we are uniquely positioned to build upon our existing research strengths.



Booth #902

The University of California, Riverside Department of Bioengineering

900 University Avenue
205 Materials Science and Engineering
Riverside, CA 92521
Phone: 951-827-4303
Email: big@engr.ucr.edu
Web: www.bioeng.ucr.edu

The mission of the Department of Bioengineering at the University of California, Riverside is:

- To instill in our students a strong foundation in science, engineering, and biological principles, and to prepare them to resolve challenges at the interface of engineering, life sciences, and medicine.
- To positively impact health and society through research and innovation in biotechnology and biomedicine.
- To shape the field of bioengineering/biomedical engineering through scientific rigor and intellectual creativity.

Our unique interdisciplinary graduate program and ABET-accredited undergraduate program both combine building a solid fundamental foundation in biological sciences and engineering while, simultaneously, developing diverse communication skills.

Booth #819

UC San Diego

9500 Gilman Drive
San Diego, CA 92093
Phone: 858-822-3441
Email: gmoreira@ucsd.edu
Web: http://be.ucsd.edu/

Booth #325

University of Chicago Institute for Molecular Engineering

5640 South Ellis Avenue
Chicago, IL 60637
Phone: 773-834-2057
Email: ime-admissions@uchicago.edu
Web: http://ime.uchicago.edu

Booth #429

University of Cincinnati

P.O. Box 210012
Cincinnati, OH 45221
Phone: 513-556-0088
Email: jason.shearn@uc.edu
Web: http://ceas.uc.edu/biomedical-engineering.html

University of CINCINNATI

Booth #729

University of Colorado/Anschutz Medical Campus Department of Bioengineering

12705 E. Montview Blvd., Suite 100
Aurora, CO 80045
Phone: 303-724-7296
Email: bioengineering@ucdenver.edu
Web: www.ucdenver.edu/bioengineering

The Bioengineering program at CU Denver welcomes undergraduate, master and PhD students. Our students learn and perform research or medical device design in world-class hospitals and clinical research labs. Our research focus areas: tissue engineering, neuroscience, assistive technology, biomedical device design, entrepreneurship, regulatory affairs and clinical imaging.

Booth #518

University of Delaware

161 Colburn Lab
150 Academy Street
Newark. DE 19716
Phone: 302-831-4578
Email: delliott@udel.edu
Web: www.bme.udel.edu

University of Delaware's Biomedical Engineering Department welcomes undergraduate and graduate students who are intellectually motivated, creative, and diverse individuals to join us. Our research focus areas: Musculoskeletal and Neural Engineering; Cancer Diagnosis and Therapy; Disease Modeling; Tissue and Regenerative Engineering.

Booth #709

University of Florida

1275 Center Drive
Biomedical Sciences Building JG-56
Gainesville, FL 32611
Phone: 352-273-9222
Email: admin@bme.ufl.edu
Web: www.bme.ufl.edu

The J. Crayton Pruitt Family Department of Biomedical Engineering at the University of Florida (UF BME) is dedicated to developing innovative and clinically translatable biomedical technologies, educating future generations of biomedical engineers, and cultivating leaders, by nurturing integration of engineering, science, and healthcare in a collaborative and dynamic educational and research environment. UF BME is one of only a few departments nationally to be co-located with a top-ranked medical school, veterinary school, and dental school, along with having a strong culture of entrepreneurship and commercialization.

Booths #219/221

University of Georgia

597 D.W. Brooks Drive
Athens, GA 30602
Phone: 706-542-0870
Email: james.warnock@uga.edu
Web: http://engineering.uga.edu/schools/cmbe

The newly formed School of Chemical, Materials and Biomedical Engineering at the University of Georgia is focused on translational research in the areas of Bio-manufacturing, Bio-based materials and Next-gen advanced therapeutics. The school offers several graduate programs, including PhD programs in Biochemical Engineering, Biomedical Engineering and Biological & Agricultural Engineering.

Booth #101

University of Houston Department of Biomedical Engineering

3517 Cullen Blvd.
Houston, TX 77204
Phone: 832-842-8813
Email: gjspillers@uh.edu
Web: http://www.bme.uh.edu

The University of Houston Department of Biomedical Engineering seeks to develop national and global leadership in academia, government, and industry by building graduate and undergraduate programs emphasizing global scientific, social, and cultural interaction to meet the demands of the dynamic, ever-changing global healthcare economy. Today our research areas span three primary areas: (1) Neural, Cognitive, and Rehabilitation Engineering, (2) Biomedical Imaging, and (3) Genomics, Proteomics, and Bionanoscience.

Booth #719

University of Illinois at Chicago

851 S. Morgan Street, Room 218
Chicago, IL 60607
Phone: 312-996-2335
Email: bioe@uic.edu
Web: www.bioe.uic.edu

One of the first degree granting and accredited Bioengineering programs in the nation, since 1965 UIC Bioengineering offers B.S., M.S., Ph.D., M.D./M.S. and M.D./Ph.D. programs that emphasize translational research and innovative training that can include clinical immersion and industry-linked interdisciplinary medical product development. The Richard and Loan Hill Department of Bioengineering is led by 30 core and more than 100 affiliate faculty who collaborate with researchers in five major academic medical centers in Chicago—including UIC, home of the largest medical school in the country.

Booth #409

University of Illinois @ Urbana-Champaign Bioengineering/College of Medicine

1304 W. Springfield Avenue, 1270 DCL
Urbana, IL 61801
Phone: 217-333-1867
Email: bioengineering@illinois.edu
Web: bioengineering.illinois.edu

The Illinois Bioengineering Department recently moved into a new 124,000-square-foot building, Everitt Lab, which provides our students and faculty with state-of-the-art facilities, educating the next generation of bioengineering health care innovators and leaders. Also located in Everitt Lab is the $10 million Jump Simulation Center, a place where medical students enrolled in our new engineering-based Carle Illinois College of Medicine can train in various settings, including an operating room, intensive care unit, and hospital/clinic patient room. Bioengineering is also integrating the simulation center into our laboratory courses, senior design projects, and technology transfer efforts. Bioengineering researchers continue to break new ground in bioimaging at multi-scale; bio-micro and nanotechnology; computational and systems biology; molecular, cellular and tissue engineering; and synthetic bioengineering. We offer B.S., M.S, M.Eng, and Ph.D. degrees.

Booth #408

University of Illinois @ Urbana-Champaign Master of Engineering (Professional Master's Program)

1304 W. Springfield Avenue
1270 Digital Computer Lab, MC-278
Urbana, IL 61801
Phone: 217-333-8163
Email: bioe-meng@illinois.edu
Web: www.bioemeng.illinois.edu

Illinois' Master of Engineering in Bioengineering is a one-year, non-thesis degree program designed for industry-bound professionals who seek to advance their technical breadth and depth in fields related to bioengineering, while developing a big-picture business perspective. The program offers a choice from one of three transcriptable concentrations: bioinstrumentation (medical devices), computational genomics (big data genome sequencing) and general bioengineering. At Illinois, you'll gain the hands-on experience, leadership ability, and unparalleled skills needed to be successful in your chosen career.

Booth #809

The University of Kansas

1520 West 15th Street
Lawrence, KS 66045
Phone: 785-864-5258
E-mail: bioe@ku.edu
Web: http://bio.engr.ku.edu/

Make your voice heard with KU Bioengineering!
Our program is broad and flexible, embracing the interdisciplinary nature of the field and specializing in translational research. With six tracks; Biomedical Product Design & Development, Biomechanics & Neural, Biomolecular, Biomaterials & Tissue, Bioimaging, and Computational Bioengineering; and a collaboration with The University of Kansas Medical Center, students customize their education and create a niche of research before they enter the job market. Inquire today. Let us help you achieve your career goals.

Booth #318

University of Kentucky Biomedical Engineering Department

522 Robotics and Manufacturing Building
143 Graham Avenue
Lexington, KY 40506
Phone: 859-257-8101
Email: bmedgs@uky.edu
Web: bme.uky.edu

The Biomedical Engineering Program at the University of Kentucky offers a clinic-immersive learning environment like no other. Since our department is within walking distance of the Colleges of Medicine, Dentistry, Pharmacy, Health Sciences, Public Health, Nursing, Arts and Sciences, Design, Business, Equine Research, Agriculture etc., it will be easy for you to explore options and find your career passion.

Booth #811

University of Louisville

2301 S. Third Street
Louisville, KY 40292
Phone: 502-852-7415
Email: nahans01@louisville.edu
Web: http://louisville.edu/speed/bioengineering

Areas of emphasis in bioengineering at University of Louisville include biomedical devices, micro- and nano–scale electro-biomechanical systems, cellular and tissue engineering, biomaterials, and medical imaging. We offer BS and MEng programs in bioengineering, and a Ph.D. in interdisciplinary studies with specialization in bio–engineering. In 2011 we became one of sixteen departments nationwide to establish a Coulter Translational Partnership with the Wallace H. Coulter Foundation to promote translational research.

Booth #213/215

University of Maryland Fischell Department of Bioengineering

8228 Paint Branch Drive
2330 Jeong H. Kim Engineering Building
College Park MD 20742
Phone: 301-405-8268
Email: bioe@umd.edu
Web: bioe.umd.edu

The Fischell Department of Bioengineering at UMD is committed to making a difference in human health care through education, research, and invention. We offer programs leading to the B.S., M.Eng., M.S., M.S./M.D., M.D./Ph.D. and Ph.D. degrees. Our new home, A. James Clark Hall, features more than 11,000 sq. ft. of class lab space and a vivarium.

Visit us at booths 408 + 409
and register for a chance to win Beats headphones

ILLINOIS

Be a part of the excitement

Department of Bioengineering + Carle Illinois College of Medicine

New state-of-the-art medical simulation center

New $55 million home for Bioengineering

World's first engineering-based College of Medicine

CONGRATULATIONS

2018 BMES Pritzker Distinguished Lecture Award recipient

Professor
Rashid Bashir
Bioengineering
and Carle Illinois
College of Medicine

Bioengineering degree programs

• Ph.D. • M.S. • M.Eng.

Carle Illinois College of Medicine

• M.D.

IllinoisBIOE

BIOENGatIL

bioengineering.illinois.edu | bioemeng.illinois.edu | medicine.illinois.edu

University of Illinois at Urbana-Champaign

Booth # 433

University of Memphis/University of Tennessee Health Science Center Joint Graduate Program in Biomedical Engineering

330 Engineering Technology
3806 Norriswood Avenue
Memphis, TN 38152
Phone: 901-678-3733
Email: adejongh@memphis.edu
Web: http://www.memphis.edu/bme/ or http://www.uthsc.edu/bme/

Our program stresses the application of engineering and physical science to biomedical problems, including research and development of new technologies. Life science, applied mathematics and engineering comprise the core curriculum. Program provides science and technology for the world and provides our students excellent opportunities for research/employment. Program includes four areas of emphasis: biomechanics, biosensors and electrophysiology, biomaterials and regenerative technology, and bioimaging.

Booths #225/227

University of Miami Department of Biomedical Engineering

1251 Memorial Drive, MEA 219
Coral Gables, FL 33146
Phone: 305-284-2445
Email: bme.coe@miami.edu
Web: www.miami.edu/bme

Booth #400

University of Michigan Department of Biomedical Engineering

1125 Carl A. Gerstacker Building
2200 Bonisteel Blvd.
Ann Arbor, MI 48109-2099
Phone: 734-764-9588
E-mail: um-bme@umich.edu
Web: http://bme.umich.edu

U-M BME is continually building upon a 50+ year tradition of excellence and a strong partnership as a joint department between Michigan Engineering and the U-M Medical School, fostering collaboration between engineers and clinicians to solve challenges in healthcare. U-M BME is a leader in regenerative medicine, imaging & biophotonics, micro- and nanotech & molecular engineering, neural engineering, biomechanics, engineering education and computation & modeling. We reach across disciplines and translate technologies from the lab to patients and healthcare providers. Our newly reimagined curriculum and pioneering design program give students the tools necessary to invent the next generation solutions in healthcare and beyond.

A warm welcome to another great Annual Meeting of the Biomedical Engineering Society.

Learn about Biomedical Engineering education offered by our Joint Graduate Program by visiting with our attendees or viewing our websites:

www.memphis.edu/bme or

www.uthsc.edu/bme

THE UNIVERSITY OF MEMPHIS. | THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

Joint Graduate Program in Biomedical Engineering

Booth #824

University of Michigan–Dearborn College of Engineering and Computer Science

4901 Evergreen Road
1186 HPEC
Dearborn, MI 48128
Phone: 313-593-0897
E-mail: deeberry@umich.edu
Web: https://umdearborn.edu/cecs

UM Dearborn's MSE in Bioengineering is designed to prepare students for the rapidly growing biomedical industry in the Detroit-Ann Arbor areas. The program consists of 30 credit hours of graduate courses, including 6 credits of core courses, 18 credits of electives, 6 credits of cognates, and a research thesis options.

Booths #812/814

University of Minnesota Department of Biomedical Engineering

312 Church St. SE
7-105 Nils Hasselmo Hall
Minneapolis, MN 55455
Phone: 612-624-8396
E-mail: bmengp@umn.edu
Web: http://bme.umn.edu

The Department of Biomedical Engineering at the University of Minnesota is physically located at the intersection of the medical school, engineering, and physical sciences, and in the heart of Medical Alley (home to Medtronic, Boston Scientific, Abbott, plus 500 other FDA-registered medtech companies). Research conducted by the faculty spans the full spectrum, with particular depth in cardio-vascular engineering, neural engineering, cell/tissue engineering, cancer bioengineering, and biomedical imaging/optics.

GALLOGLY COLLEGE OF ENGINEERING
STEPHENSON SCHOOL OF BIOMEDICAL ENGINEERING
The UNIVERSITY *of* OKLAHOMA

Ingenuity in Translational Healthcare Technology

STEPHENSON SCHOOL OF BIOMEDICAL ENGINEERING

- New BME building opens in Fall 2019
- Multiple Endowed Chair faculty openings
- $30K Ph.D. graduate fellowships available
- Entrepreneurship opportunities and support
- NCI-Designated Stephenson Cancer Center
- #1 nation-wide in patient accrual to NCI-Designated treatment trials
- Collaboration opportunities with industry and OU Health Sciences Center

To learn about available Stephenson Endowed Professorships and Graduate Fellowships, contact SBME Director Michael Detamore (detamore@ou.edu).

sbmeatou sbme_ou sbme.ou.edu

Booth # 1014

University of Missouri Department of Bioengineering

254 Agr. Engineering Bldg.
Columbia, MO 65211
Phone: 573-882-7044
Email: HowardLB@missouri.edu
Web: http://bioengineering.missouri.edu/

The mission of the Department of Bioengineering is to educate engineering leaders in the field of bioengineering. We offer degrees in Biomedical Engineering and Biological Engineering at the undergraduate level as well as graduate degrees. Our emphasis on Biomedical Innovations is an interdisciplinary approach that exposes our students to cutting edge research opportunities. We are a Tier I research institution and member of the prestigious Association of American Universities.

Booths #908/910

University of Nebraska– (UNL Engineering and UNMC Regenerative Medicine)

P.O. Box 880642
Lincoln, NE 68588-0642
Phone: 402-472-3386
Email: mriley3@unl.edu
Web: engineering.unl.edu and www.unmc.edu/regenerativemed/

The University of Nebraska offers collaborative programs for students to pursue graduate degrees specializing in Biomedical Engineering, both through University of Nebraska -Lincoln's (UNL) College of Engineering and the University of Nebraska Medical Center's (UNMC) Regenerative Medicine Program. Research funding and opportunities are available cooperatively between UNL and UNMC.

Booths #403/405

University of North Carolina at Chapel Hill/NC State University

137 MacNider Hall
Chapel Hill, NC 27599
Phone: 919-445-6051
Email: vberg@email.unc.edu
Web: www.bme.unc.edu

The Joint Department of Biomedical Engineering was founded in 2003 and is co-located at the University of North Carolina at Chapel Hill and North Carolina State University. Linking the School of Medicine and College of Arts and Sciences at UNC-CH to the College of Engineering at NCSU, the graduate program offers a joint PhD degree in Biomedical Engineering in five core research areas: Rehabilitation Engineering, Regenerative Medicine, Medical Imaging, Biomedical Microdevices and Pharmacoengineering. With over 40 tenured and tenure track core faculty members, our graduate program embraces interdisciplinary collaborations spanning the basic sciences through to clinical and translational applications.

Booth #900

University of Oklahoma Stephenson School of Biomedical Engineering

202 W Boyd Street, DEH Room 320
Norman, OK 73019
Phone: 405-325-0789
Email: detamore@ou.edu
Web: www.ou.edu/COE/SBME.html

The Stephenson School of Biomedical Engineering offers $30K graduate fellowships and is hiring faculty with Endowed positions, with a new Gallogly Hall building for BME being completed in Spring 2019, and a nearby Health Sciences Center. Our PhD graduates started 3 companies in 2017, supported by a highly entrepreneurial environment.

Booths #419/421

University of Pittsburgh Department of Bioengineering

306 CNBIO
300 Technology Drive
Pittsburgh, PA 15219
Phone: 412-624-6445
Email: ngm8@pitt.edu
Web: engineering.pitt.edu

The University of Pittsburgh Department of Bioengineering conducts world-class research and is home to faculty and students at both the graduate and undergraduate level who have won both nationally and internationally recognized awards. The department also has a close affiliation with the renowned University of Pittsburgh School of Medicine.

Booth #608

University of Rochester

204 Robert E. Georgen Hall
Rochester, NY 14627
Phone: 585-275-3891
Email: donna.porcelli@rochester.edu
Web: www.bme.rochester.edu

The Graduate Program in Biomedical Engineering at the University of Rochester provides training at the Masters and Doctoral level. Multiple active centers and affiliated groups offer collaborative research in Biomedical Optics; Neuroengineering; Biomechanics; Medical Imaging; Biomaterials, Nanotechnology and Cell & Tissue Engineering. With access to over 50 laboratories on the River Campus and the adjacent Medical Center, students can tailor their own interdisciplinary and translational training experience. We also offer an MS program focused on Medical Technology & Innovation, including a clinical practicum and full-year design experience.

Booth #725

University of South Dakota Biomedical Engineering

4800 N. Career Avenue
Sioux Falls, SD 57109
Phone: 605-275-7424
Email: bme@usd.edu
Web: usd.edu/bme

USD BME works at the interface of engineering and medicine. As an anchor for the USD Discovery District, the BME Department fosters collaboration focused on research, product development, and commercialization. Offering undergraduate and graduate degrees, the BME Department also houses a pilot-scale cGMP facility, shared equipment facilities, and biotech incubator space.

Booth #726

University of Southern California Viterbi School of Engineering

3650 McClintock Ave, OHE 106
Los Angeles, CA 90089-1455
Phone: 213-740-0119
Email: fujioka@usc.edu
Web: http://viterbigradadmission.usc.edu

A top-10 ranked graduate engineering school by U.S. News & World Report, the University of Southern California is a leading private research university. Our Biomedical Engineering department is in the top tier for research funding per faculty and hosts six internationally recognized research centers. Located in L.A., USC offers extensive opportunities for study and research.

Booth #803

University of St. Thomas/ Houston Methodist Research Institute

3800 Montrose Boulevard
Houston, TX 77006
Phone: 713-525-3026
Email: mctin@stthom.edu
Web: www.stthommedu/mctm

Booths #903/905

University of Tennessee, Knoxville

1512 Middle Drive
414 Dougherty Engineering Bldg.
Knoxville, TN 37996
Phone: 865-974-5117
Email: mabeinfo@utk.edu
Web: mabe.utk.edu

The University of Tennessee prepares students to be world-class engineers. Our state-of-the-art facilities include a Syndaver Laboratory, the first of its kind in an engineering department. Stop by our booth to speak with students and faculty about the exciting research going on at the University of Tennessee.

Booth #305

The University of Texas Arlington Bioengineering Department

500 UTA Blvd., Suite 226
Arlington, TX 76019
Phone: 817-272-2249
Email: cbradfield@uta.edu
Web: www.uta.edu/bioengineering

The Bioengineering Department at The University of Texas Arlington offers several research and scholarship opportunities for students interested in biomaterials and regenerative tissue engineering, bioinstrumentation, biomechanics, and biomedical imaging. Graduate students also have the option of earning a joint degree with The University of Texas Southwestern Medical Center. Additionally, highly qualified students interested in seeking a doctoral degree in nanomaterials, nanoengineering and nanomedicine (DTNEN), focused on cardiovascular and lung diseases, are encouraged to apply for our NIH T-32 trainee fellowship! Those interested in our programs are strongly encouraged to visit Booth 305 at the exhibit to learn more!

Booths #618/620

The University of Texas at Austin Department of Biomedical Engineering

107 W. Dean Keeton, C0800
Austin, TX 78712
Phone: 512-471-3604
Email: sbixby@mail.utexas.edu
Web: www.bme.utexas.edu

The University of Texas at Austin's Biomedical Engineering Department educates the next generation of biomedical engineers by offering B.S., M.S., and Ph.D. degrees. Scholars and students build interdisciplinary knowledge in areas such as bioinformatics, biomechanics, biomedical imaging and instrumentation, cellular and biomolecular engineering, and computational biomedical engineering, among others.

Booths #412/414

University of Texas at Dallas Department of Bioengineering

800 W. Campbell Rd. BSB 11
Richardson, TX 75080
Phone: 972-883-4486
Email: bioengineering@utdallas.edu
Web: http://be.utdallas.edu

The University of Texas at Dallas presents their Biomedical Engineering degree programs to future students and the highly competitive Eugene McDermott Graduate Fellowship for outstanding PhD applicants. Information about our research programs in bioinformatics, biomaterials, biomechanics, biomedical imaging and optics, biosensors, and neural engineering will also be available.

Booth #914

University of Texas at San Antonio Department of Biomedical Engineering

One UTSA Circle AET 1.102
San Antonio, TX 78249
Phone: 210-458- 8529
Email: liang.tang@utsa.edu
Web: www.engineering.utsa.edu/BME/

The Department of Biomedical Engineering at the University of Texas at San Antonio offers BS degrees in Biomedical and Chemical Engineering and MS and PhD degrees through the Joint Graduate Program with UT Health San Antonio. Scholarship and fellowship opportunities are available for MS and PhD students. Research activities occur in a broad range of areas, including biomaterials, tissue engineering, biomechanics, nanomaterials, bioimaging and data science.

Booth #319

University of Toronto Institute of Biomaterials & Biomedical Engineering

164 College Street
Room 407
Toronto, Ontario M5S 3G9 Canada
Phone: 416-978-4841
Email: admissions.ibbme@utoronto.ca
Web: www.ibbme.utoronto.ca

IBBME at U of T is a multidisciplinary research community that develops solutions to address global challenges in human health. We offer four graduate degrees in biomedical and clinical engineering to 300 students trained by more than 100 faculty from across the university and the largest health-care network in Canada.

Booths #218/220

University of Utah Department of Bioengineering

36 South Wasatch Drive
Suite 3100
Salt Lake City, UT 84112
Phone: 801-581-8521
Email: erica.fearnley@utah.edu
Web: www.utah.edu

Nestled in the towering Wasatch mountain range 20 minutes from Salt Lake International Airport, the Department of Biomedical Engineering offers clinically immersive and industrially relevant training at the BS, MS, and PhD levels. The program is closely connected with the University of Utah's flagship School of Medicine and Health sciences with a strategic focus on a biomedical mission that benefits our students, the med-tech industry, healthcare technology, and patients worldwide through meaningful biomedical advancements, creative design and innovation. Faculty research areas in the department include biomaterials, tissue engineering and regenerative medicine; biomedical device design and development; biomechanics; biomedical imaging, computing, modeling and visualization; biosensors, biomolecular engineering and synthetic biology; cardiovascular engineering; neural engineering and neuroprosthetics; and new drug delivery strategies. We create leaders in biomedical research, industry, technical education and entrepreneurship.

Booth #426

University of Vermont Department of Biomedical Engineering

33 Colchester Avenue
Burlington, VT 05405
Phone: 802-656-6644
Email: ryan.mcginnis@uvm.edu
Web: www.uvm.edu/cems/ebe

Booth #504

University of Virginia

P.O. Box 800759 UVA
Charlottesville, VA 22908
Phone: 434-924-5101
Email: bme-dept@virginia.edu
Web: http://bme.virginia.edu

Using our perspective as engineers, we make groundbreaking discoveries in fields like systems biology and biomedical data sciences, medical imaging, and cellular and tissue engineering. We are co-located in the medical school, and our department's remarkable tendency toward collaboration reflects a culture of cooperation that has been essential to UVA going all the way back to Thomas Jefferson.

Booth #911

University of Washington Department of Bioengineering

3720 15th Avenue NE, N107
Seattle, WA 98195
Phone: 206-685-2000
Email: bioeng@uw.edu
Web: bioe.uw.edu

University of Washington Bioengineering is a world leader in bioengineering research, education, clinical applications, technology transfer, and service. Please visit booth 911 to discover how we are inventing the future of medicine. Our faculty and students are eager to talk to you!

Booth #204

The University of Wisconsin–Madison Department of Biomedical Engineering

1550 Engineering Drive
Madison, WI 53706
Phone: 608-263-4660
Email: info@bme.wisc.edu
Web: www.engr.wisc.edu/bme/bme.html

At the University of Wisconsin-Madison, our department is at the forefront of scientific discovery and translation. Visit our booth to learn more about our innovative academic programs, world-class research facilities, and interdisciplinary campus from faculty, students, and staff.

Booth #513

Vanderbilt University

5824 Stevenson Center Drive
Nashville, TN 37235x
Phone: 615-343-1099
Email: tina.shaw@vanderbilt.edu
Web: www.vanderbilt.edu

VU BME bridges Vanderbilt's engineering, basic science departments, and a Top 10 School of Medicine, and is located in a vibrant, destination city. Research strengths include biomaterials and drug delivery, bioMEMS and organs-on-a-chip, biophotonics, image-based technologies and modeling, mechanobiology, and nanomedicine. VU BME stimulates high impact research and provides unique educational opportunities, and in 2018 we are celebrating its 50th anniversary as a department.

Booths #818/820

Virginia Commonwealth University

601 W. Main Street
Richmond, VA 23220
Phone: 804-828-7958
Email: biomedicalengr@vcu.edu
Web: https://egr.vcu.edu/departments/biomedical/

VCU Biomedical Engineering has strong ties with the VCU Schools of Medicine, Dentistry, and Pharmacy and Massey Cancer Center, and offers Bachelor's, Master's, and Doctoral degrees. Research specialties include mechanobiology, regenerative medicine, biomechanics, rehabilitation engineering, biomaterials, computational medicine, and imaging.

50th Anniversary

1968–2018

Vanderbilt University

Biomedical Engineering

During our 50th anniversary year, we congratulate BMES on your 50th anniversary... here's to many more years of advancing human health and transforming the future!

VANDERBILT UNIVERSITY

Department of Biomedical Engineering

Booths #600/601/602/603/604/605

Virginia Tech-Wake Forest University School of Biomedical Engineering & Science

VT-WFU SBES:
317 Kelly Hall
325 Stanger Street
Mail Code 0298
Blacksburg, VA 24061
Phone: 540-231-8191
E-mail: kristie@vt.edu
Web: www.sbes.vt.edu

The Virginia Tech Wake Forest University, School for Biomedical Engineering and Sciences offers MS, PhD, MD/PhD, and DVM/PhD degrees. We have 76 biomedical engineering faculty with active research programs in tissue engineering, biomedical imaging, biomechanics, nano-medicine, & nanobioengineering, neuroengineering, translational cancer research, cardiovascular engineering, and other emerging fields.

Booths #413/ 415

Washington University in St. Louis

One Brookings Drive, Box 1097
St. Louis, MO 63131
Phone: 314-935-6164
Email: bme@wustl.edu
Web: http://bme.wustl.edu/

In partnership with our world-class medical school and as part of a $550M research enterprise in life sciences and biomedical research, the Department of Biomedical Engineering at Washington University provides unparalleled opportunities for interdisciplinary, basic science and translational research training at the BS, MS and PhD level. More than 90 research mentors support over 120 BME PhD students in studies of regenerative medicine, imaging, cell and molecular systems, cardiovascular, neural, orthopedic, and cancer engineering. With adjacency to the largest public park in the USA, and over 75,000 sq. ft. of state-of-the-art facilities, the BME Department at Washington University provides the ideal intellectual, physical and collaborative climate to pursue a BS, MS, MEng, MS/MA, PhD or MD/PhD degree.

Booth #410

Wayne State University

818 W. Hancock
Detroit, MI 48201
Phone: 313-577-1345
Email: nmurthy@wayne.edu
Web: www.bme.wayne.edu

The Biomedical Engineering Department at Wayne State University offers BS(including dual degree options with Mechanical Engineering and Electrical Engineering), Bridge Certificate in Injury Biomechanics, MS, PhD and MD/PhD degrees. It is involved in some of the most advanced research in the field. Our faculty have made significant contributions in automotive safety and the prevention of sports-related and military injuries. Ground-breaking research is also being conducted in the devel-opment of tissue-engineered nerves and heart valves as well as imaging techniques for improved diagnosis of brain injury and cancer. Our research has led to improvement in the standards of the automotive industry, better protective equipment for our soldiers and athletes, new techniques to repair damaged tissue and improved diagnostic imaging of trauma and disease.

Booth #827

Woodrow Wilson National Fellowship Foundation

5 Vaugh Dr. Ste 300
Princeton, NJ 08540
Phone: 609-945-7852
Email: ndiba@woodrow.org
Web: www.woodrow.org

The Woodrow Wilson National Fellowship Foundation seeks to attract talented, committed individuals with back-grounds in the STEM fields—science, technology, engineering, and mathematics—into teaching in middle and secondary schools. In collaboration with MIT, the Woodrow Wilson Foundation is changing master's-level teacher and leader preparation for the 21st century, focusing on outcomes and content mastery.

Virginia Tech
Wake Forest University

School of **Biomedical Engineering and Sciences**

RESEARCH AREAS

- Biomaterials
- Biomechanics
- Biomedical Imaging
- Cardiovascular Engineering
- Nanobioengineering
- Neuroengineering
- Tissue Engineering
- Translational Cancer Research

DEGREE PROGRAMS

- M.S.
- Ph.D.
- D.V.M. / Ph.D.
- M.D. / Ph.D.

APPLICATION DEADLINE

January 5, 2019

Visit us online at **sbes.vt.edu**

Booths #326/328

Worcester Polytechnic Institute

100 Institute Road
Worcester, MA 01609
Phone: 508-831-5301
Email: grad@wpi.edu
Web: www.grad.wpi.edu

Graduate students in WPI's Biomedical Engineering (BME) Department collaborate with scientists and engineers across disciplines, seeking breakthroughs in injury and rehabilitative biomechanics, innovations in regenerative medicine and quantitative microscopy, and major steps forward in healthcare. Whether in the classroom or the lab, the focus is on making an impact and solving real-world problems. WPI's BME graduates have gone on to rewarding careers at major medical and biomedical research centers across academia, government, and the medical device industry.

Booth #214

Yale University

55 Prospect Street
New Haven, CT 06511
Phone: 203-432-4262
Email: deanna.lomax@yale.edu
Web: www.seas.yale.edu/departments/biomedical-engineering

The booth will be staffed with graduate representatives and faculty from the department of Biomedical Engineering at Yale. The faculty and graduate representative will aim to describe the program to interested visitors and answer any questions regarding the program requirements and admissions process.

COUNCIL OF CHAIRS
OF BIOENGINEERING AND BIOMEDICAL ENGINEERING

BMES BIOMEDICAL ENGINEERING SOCIETY

SAVE THE DATE

Fourth Biomedical Engineering Education Summit Meeting

Addressing Skills for Career Success

May 29-31, 2019

Tinkham Veale University Center,
Case Western Reserve University
Cleveland, OH

GOALS

- To evaluate the current status of BME educational approaches, and to foster progress and improvement in biomedical engineering education.
- To solicit input from future employers, education experts, and current biomedical engineering educators on the future of biomedical engineering education
- To assist in the dissemination of best practices for biomedical engineering education.
- To increase the visibility and appreciation of the unique skills of biomedical engineers.

www.bmes.org/coc

The organizing committee looks forward
to seeing you in Cleveland

Meeting Location | Registration | Exhibits | Poster Presentations

Meeting Location

Georgia World Congress Center
285 Andrew Young International Blvd NW
Atlanta, GA 30313
404-223-4000

Omni Atlanta Hotel at CNN Center
100 CNN Center
Atlanta, GA 30303
404-659-0000

Registration

Paid registration is required for admission to all meeting functions including scientific sessions, posters, exhibits, breaks and the BMES BASH on Friday evening. BMES cancellation policy may be found on any registration form. Any applicable refunds will be issued post-meeting. Substitutions are permitted with written permission from the original registrant. Additional social event tickets including the Celebration of Minorities in BME Luncheon, and the Women in BME Luncheon are separate and above BMES meeting registration.

On-Site Registration Hours

Wednesday, October 17	12:00 pm – 7:00 pm
Thursday, October 18	7:00 am – 6:00 pm
Friday, October 19	7:00 am – 6:00 pm
Saturday, October 20	7:00 am – 2:00 pm

Exhibits

Halls A1-A3, Lowest Level
Georgia World Congress Center
Exhibits will be open:

Thursday, October 18	9:30 am – 5:00 pm
Friday, October 19	9:30 am – 5:00 pm
Saturday, October 20	9:30 am – 1:30 pm

Georgia Tech & Emory University Tours

Wednesday, October 17
2:00 pm–5:00 pm
Advance registration required
Buses will depart from the convention center entrance.

Industry Tours

Friday, October 19
2:00 pm–5:00 pm
Advance registration required

BMES Presenter Information

Platform Presentations

Each technical session room will be equipped with a PC-compatible computer with a USB port and PowerPoint along with an LCD projector, screen and a lectern with microphone.

During the half hour before your session begins, please upload your presentation onto the computer using a memory stick or flash drive. Because of the potential difficulty transferring some Mac files to PC format, we encourage you to avoid use of animation if there is a question about transferability.

Please do not try to connect your own laptop. Please note, it will not be possible to provide special equipment. Any additional equipment will need to be supported by the presenter. Although BMES has paid for WiFi throughout the convention center during the Annual Meeting, there will not be specific dedicated hard-wired internet access in the meeting rooms.

Sessions chairs should keep sessions on the listed schedule so attendees can move back and forth among sessions. In most cases, presentations should be done in twelve minutes, allowing three minutes for questions and answers and transition to the next speaker.

Poster Presentations

Posters will be presented Thursday, Friday and Saturday. Posters are to be displayed all day on assigned day. Authors must be present during specified viewing with authors as listed in the Scientific Program:

Thursday	9:30 am–10:15 am and 3:00 pm–3:45 pm
Friday	9:30 am–10:15 am and 2:45 pm–3:30 pm
Saturday	9:30 am – 10:30 am

All posters will be in the Exhibit Hall A1–A3 in the Georgia World Congress Center. Posters are numbered with a card corresponding to the numbers assigned in the program.

Speaker Ready Room

Registration Area, Exhibit Halls A1–A3 of the Georgia World Congress Center

In the BMES Speaker Ready Room you will find cables, LCD projector and screen to practice your presentation. Please bring your own laptop.

Wednesday, October 17	1:00 pm – 5:00 pm
Thursday, October 18	7:00 am – 5:00 pm
Friday, October 19	7:00 am – 5:00 pm
Saturday, October 20	7:00 am – 2:30 pm

Program Highlights—Don't Miss These Events!

Wednesday, October 17

Black Women in Biomedical Engineering: Lessons for Healthy and Successful Career Advancement

(preregistration and ticket purchase required)

3:00 pm–5:00 pm **Omni Hotel–Dogwood AB Room**

Targeted to black women in biomedical engineering, advocates, and those interested in the retention and career advancement of underrepresented and underserved populations in BME. Featuring Dr. Joy Harden Bradford, this session and networking reception will address emotional and mental health issues, as well as provide tips for black women to survive and thrive in their professional careers.

Meet the Faculty Candidate Forum

3:30 pm–5:30 pm **Exhibit Hall A1**

The "Meet-the-Faculty Candidate" poster session provides a great opportunity for faculty, recruiters, and Department Chairs to speak directly with recent PhD grads and post-doctoral researchers who are seeking faculty positions. The accepted candidates' CVs can be viewed at www.bmes.org.

Welcome Reception

5:30 pm–7:00 pm **Levels 3 & 4**

Light refreshments will be served. All registrants are invited to attend.

Welcome Reception sponsored by:

Johns Hopkins Biomedical Engineering

LGBT & Friends Dessert Social

8:00 pm–9:00 pm **Omni Hotel–International Ballroom ABC**

**additional registration and $10 ticket required*

Jennifer Hasler, PhD, Professor at the Georgia Institute of Technology in the School of Electrical and Computer Engineering will lead the talk at the event, followed by networking, dessert and a cash bar.

Don't forget to turn your BMES BASH ticket in for a wristband at the information or registration booths before Friday afternoon

Thursday, October 18

BMES State of the Society Address & Pritzker Award Lecture

10:15 am **Sidney Marcus Auditorium**

Please join us for a dialogue with BMES President Lori Setton and other leaders of the Society.

Industry & Clinical Mixer

**additional registration and $10 ticket required (includes one drink and hors d'oeuvres)*

7:00 pm–8:30 pm **STATS Brewpub**

The Industry & Clinical Mixer will be a fantastic opportunity for recent graduates and current students to network with both industry and clinical professionals in a fun and relaxed atmosphere! There will be music, food and drinks.

STATS Brewpub is conveniently located just outside of the conference center at 300 Marietta St NW Atlanta, GA. Parking is located right across the street at the 311 Marietta Street parking deck (attached to the Hilton Garden Inn).

Industry & Clinical Mixer sponsored by:

Brooks Kushman Intellectual Property and Technology Law

Friday, October 19

BMES Dessert Party Bash

8:30 pm–11:00 pm **Thomas Murphy Ballroom Georgia World Congress Center**

Join us for a Dessert Party this year to celebrate the 2018 BMES Annual Meeting and BMES' 50th Anniversary. Cap off the evening with some dessert and networking.

Dessert Party Bash sponsored by:

Georgia Tech Wallace H. Coulter Department of Biomedical Engineering — Georgia Tech College of Engineering and Emory School of Medicine; Emory University

Refreshment Breaks

Please note your meeting registration includes morning and afternoon refreshments breaks on Thursday, Friday and Saturday. Refreshment breaks are in the Exhibit Hall.

Refreshment Breaks are sponsored by:

Department of Bioengineering, The University of Utah

Department of Bioengineering, University of Washington

University at Buffalo, The State University of New York, Department of Biomedical Engineering

VCU College of Engineering

Celebration of Minorities in BME Luncheon

Thursday, October 18

Celebration of Minorities in BME Luncheon*

11:45 am–1:15 pm **Room A411**

*additional registration and $35 ticket required

This event is organized by the BMES Diversity Committee to create a community and network within the Society fostering support and professional development of minorities in BMES at all levels. Everyone is invited to attend, as diversity only increases when all groups play a part. The luncheon complements the Diversity Award Lecture on Thursday evening and the Women in BME Luncheon on Friday.

Research and Life Matters: Seeking Passion and Sanity in Career

Professor Paula T. Hammond

Koch Professor of Engineering
Department Head, Dept. of Chemical Engineering
Koch Institute of Integrative Cancer Research
Massachusetts Institute of Technology

Scientific and engineering careers provide some of the greatest outlets for creativity, discovery, and fulfillment. Although there are many challenges to seeking a career in a field that can be both inspiring and, at times, discouraging, there are also strategies and perspectives that can help provide grounding and leverage efforts toward success. Flexibility is essential in the ways in which we connect research, life, career, family and other passions at different stages of life. These and any other issues regarding research or broader aspects of career will be discussed.

Celebration of Minorities in BME Luncheon is Sponsored by:

BIOENGINEERING
University of Illinois at Urbana-Champaign
ENGINEERING FOR LIFE

Professor Paula T. Hammond is the David H. Koch Chair Professor of Engineering at the Massachusetts Institute of Technology, and the Head of the Department of Chemical Engineering. She is a member of MIT's Koch Institute for Integrative Cancer Research, the MIT Energy Initiative, and a founding member of the MIT Institute for Soldier Nanotechnology. She recently served as the Executive Officer (Associate Chair) of the Chemical Engineering Department (2008-2011). The core of her work is the use of electrostatics and other complementary interactions to generate functional materials with highly controlled architecture. Her research in nanomedicine encompasses the development of new biomaterials to enable drug delivery from surfaces with spatio-temporal control. She also investigates novel responsive polymer architectures for targeted nanoparticle drug and gene delivery, and has developed self-assembled materials systems for electrochemical energy devices.

Professor Paula Hammond was elected into the National Academy of Engineering in 2017. She was elected into the National Academy of Medicine in 2016, and into the 2013 Class of the American Academy of Arts and Sciences. She is also the recipient of the 2013 AIChE Charles M. A. Stine Award, which is bestowed annually to a leading researcher in recognition of outstanding contributions to the field of materials science and engineering, and the 2014 AIChE Alpha Chi Sigma Award for Chemical Engineering Research. She was selected to receive the Department of Defense Ovarian Cancer Teal Innovator Award in 2013, which supports a single visionary individual from any field principally outside of ovarian cancer to focus his/her creativity, innovation, and leadership on ovarian cancer research.

Friday, October 19

Women in BME Luncheon*

11:30 am–1:00 pm **Room A411**

additional registration and $35 ticket required

Mentors and Networks for Success

Jennifer West

Fitzpatrick Family University Professor of Engineering
Duke University

It takes a village. For career success, this village is the people in your community who support you and help you grow. Usually, this involves multiple people with different expertise and views. At some stages, these individuals are clearly identified, like your thesis advisor. At other points in your career, you may need to more actively seek out people who can help you define your goals, provide sage advice or serve as a confidante. Most successful biomedical engineers develop strong professional networks and benefit from input from multiple mentoring relationships. This is especially important for women. For example, the NRC Report on Gender Differences found that women STEM faculty who had a mentor were 23% more likely to have a successful grant application, whereas there was no improvement in success in grant applications for men with mentoring. As we mature in our careers, it is also important to work on developing our skills as mentors to help build our future generations and to use our professional networks to facilitate the success of others.

Women in BME Luncheon is Sponsored by:

UCDAVIS
BIOMEDICAL ENGINEERING

Jennifer West joined the faculty at Duke in 2012 as the Fitzpatrick Family University Professor of Engineering, after having been the department chair and Cameron Professor of Bioengineering Rice University. Professor West was one of the founding members of Rice's Department of Bioengineering, building it to a top ten program over the prior sixteen years. She was appointed as Associate Dean in the Pratt School of Engineering in 2015. Professor West's research focuses on the development of novel biofunctional materials. An example of this work is the application of near-infrared absorbing nanoparticles for photothermal tumor ablation. Professor West founded Nanospectra Biosciences, Inc. to commercialize the nanoparticle-assisted photothermal ablation technology, now called AuroLase. Professor West has received numerous accolades for her work, including: National Academy of Inventors (2017), National Academy of Engineering (2016), Society for Biomaterials Clemson Award (2015), Thomson Reuters as a Highly Cited Researcher (2014), Texas Inventor of the Year (2010), Admiral of the Texas Navy (highest honor the governor of Texas can bestow on a civilian, 2010), The Academy of Medicine, Engineering and Science of Texas O'Donnell Prize in Engineering (2008), and Howard Hughes Medical Institute Professor (2006). Professor West has authored more than 200 research articles. She also holds 18 patents that have been licensed to eight different companies.

Additional Meetings

Most of these meetings/events are invitation only. Please check with the organizer.
Meetings held at the Georgia World Congress Center unless noted.

Wednesday, October 17

BMES Board of Directors Meeting
8:30 am–4:30 pm — **Executive Boardroom**
Organizer: **Lori Setton**

Venture Well BME IDEA 2018
Affiliate Event
8:30 am–6:30 pm — **Omni Hotel International Ballroom D**
Contact: **Hollie Alvarez**

AIMBE Board of Directors Meeting
Affiliate Event
11:00 am–4:00 pm — **Room A309**
Organizer: **Milan Yager**

AIMBE Academic Council
Affiliate Event
4:00 pm–5:00 pm — **Room A309**
Organizer: **Milan Yager**

Council of Chairs Dinner & Meeting
Invitation Only
7:30 pm–10:30 pm — **Omni Hotel International Ballroom F**
Organizer: **Martine LaBerge**

Industry Committee Planning Meeting
Invitation Only
7:30 pm–8:30 pm — **Omni Hotel Magnolia Room**
Organizer: **Ben Noe**

Thursday, October 18

Council of Industry Chapter Presidents–
Invitation Only
7:00 am–8:00 am — **Room A308A**
Organizer: **Ben Noe**

Diversity Committee Meeting
7:00 am–8:00 am — **Room A308B**
Organizer: **Debra Auguste and Guillermo Ameer**

National Meetings Committee Meeting
8:00 am–9:30 am — **Room A309**
Organizers: **Cynthia Reinhart-King and Shelly Sakiyama-Elbert**

Thursday, October 18 *(continued)*

Student Affairs Committee
8:30 am–9:30 am — **Room A306**
Organizer: **Art Ritter**

Ethics Subcommittee Meeting
9:30 am–10:30 am — **Room A308A**
Organizer: **Subrata Saha**

CMBE SIG Council Meeting
12 noon–1:30 pm — **Room A308A**
Organizer: **Yingxiao (Peter) Wang**

50th Anniversary Committee Meeting
1:15 pm–3:00 pm — **Room A309**
Organizer: **Martine LaBerge**

Coulter College Steering Committee Meeting
4:30pm–5:30pm — **Room A308**
Contact: **Gilda Barabino**

Friday, October 19

Education Committee Meeting
7:00 am–8:00 am — **Room A308B**
Organizer: **Donald Gaver**

2019 Annual Meeting Planning Committee Meeting
8:00 am–10:00 am — **Room A309**
Organizers **Alisa Morss Clyne and Ruth Ochia**

International Affairs Subcommittee Meeting
8:00 am–9:00 am — **Room A308A**
Organizer: **Damir Khismatullin**

Membership Committee Meeting
3:00 pm–4:00 pm — **Room A308A**
Organizer: **Kristen Billiar**

Design Competition Judges Meeting
3:30 pm–4:30 pm — **Room A308B**
Organizer: **Liz Richards**

ABET/Evaluators Reception *(Invitation Only)*
6:30 pm–8:30 pm — **Omni Hotel Chestnut Room**

Receptions located at the Omni Hotel

Thursday, October 18

Boston University
Hazelnut Room

Clemson Bioengineering
Oak Room

Cornell University
Pecan Room & Foyer

Duke University
Maple C Room & Maple Terrace

Georgia Tech/Emory-Coulter Department
International Ballroom D

Johns Hopkins University
International Ballroom A

Northwestern University
Chestnut Room

Purdue University/Weldon School of Biomedical Engineering
International Ballroom B

Rensselaer Polytechnic Institute
Cypress Room

Rice University
Cottonwood AB

Texas A&M University
Magnolia Room

The Ohio State University
International Ballroom E

Bioengineering Institute of California UC System-Wide
International Ballroom F

University of Florida
Dogwood Room B

Washington University in St. Louis
Juniper Room

University of Michigan
Spruce/Birch Room

University of Pennsylvania
International Ballroom C

University of Pittsburgh
Sycamore Room

University of Rochester
Redwood Room

University of Utah
Hickory Room

University of Victoria
Pine Room

University of Virginia
Walnut Room

Vanderbilt University
Dogwood Room A

University of Maryland
Maple AB Room

Friday, October 19

AIP Publishing–APL Bioengineering
Juniper Room

Florida International University
Dogwood Room A

Physical Science Oncology Networking
Hickory Room

University of Buffalo
Cypress Room

University of Illinois
Redwood Room

University of Southern California
Magnolia Room

University of Texas at Austin
Pecan Room & Foyer

University of Washington
Cottonwood Room AB

University of Wisconsin Madison
Dogwood Room B

Student and Early Career Programs

Programs take place in the Convention Center, unless otherwise noted

Wednesday, October 17

3:30 pm–5:00 pm **Room A411**

BMES Student Chapter Development Event

Chair: **Michael Brooks (UC Davis) and Sarah St. Clair (UC Davis)**

Join us for multiple, short presentations from chapters across the country. The presentations will be followed by two breakout workshops.

The first breakout session period will focus on General Leadership and the second on Targeted Officer Roles. Work with your peers to generate new ideas and leadership strategies for your chapters. This event will generate exciting, new ideas for your chapters. As an added bonus, meet up with other student chapter leaders throughout the session. Event hosted by BMES at UC Davis.

4:00 pm–5:00 pm **Room A412A**

Tips for First-time Student and Early Career Attendees

Welcome to your first BMES Annual Meeting! Attending a meeting as eventful as the BMES Annual Meeting can be overwhelming, but BMES is here to help our students and young professionals navigate the program. You'll hear tips from professionals in academia and industry help to make the most of your time in Atlanta. So be sure to attend this session and meet other first-time attendees.

Thursday, October 18

9:00 am–10:00 am **Room A412A**

Marketing Yourself: Tips for a Successful Job Search

Learn how to search for jobs in BME, how to locate BME companies, how to connect with BME employers, and hear about resume writing tips specifically for the BME.

1:30 pm–2:45 pm **Room A412A**

BME Careers in Industry I

Explore the various industry options for BME professionals. Representatives from industry share their career paths, educational training, insight into the hiring market, and suggestions for current students and recent graduates.

2:30 pm–4:00 pm **Exhibit Hall A1-A3: Career Zone**

Rapid Resume Review–Members Only

Experienced BME professionals will review an electronic or hard copy of your resume and work with you to make improvements. Or simply get some career advice.

3:00 pm–4:00 pm **Room A412A**

BME Careers in Academia

Hear about the various career paths and opportunities in academia. Representatives from academia share their career paths, educational training, and provide suggestions for current students and recent graduates

4:15 pm–5:15 pm **Room A412A**

BME Careers in Industry II

Explore the various industry options for BME professionals. Representatives from industry share their career paths, educational training, insight into the hiring market, and provide suggestions for current student and recent graduates.

Student Chapter Tables

Alpha Eta Mu Beta, The National Biomedical Engineering Honor Society

Arizona State University

Florida International University

Johns Hopkins University

Marquette University

University of California San Diego

University of Florida

University of Maryland at College Park

University of Oklahoma

University of Southern California

University of Texas at Austin

University of Wisconsin-Madison

Virginia Commonwealth University

Worcester Polytechnic Institute

Student and Early Career Programs

Programs take place in the Convention Center, unless otherwise noted

Friday, October 19

8:00 am–10:30 am — **Room A310**

BMES Student Chapter: Chapter Best Practices

Outstanding Student Chapter awardees will provide their chapter best-practices. During this workshop each chapter will have the opportunity to present their chapter's goals and accomplishments in the areas of Mentoring, Outreach and Chapter-Industry. Our chapter winners include Outstanding Achievement awardee University of Southern California, Commendable Achievement awardee San José State University, Outstanding Outreach Program awardee University of California Los Angeles, Outstanding Mentoring Program awardee University of California Davis and Outstanding Chapter-Industry Program awardee Purdue University.

This workshop will allow new and current student chapters an opportunity to ask questions, exchange ideas and implement new goals for their upcoming year.

9:00 am–10:00 am — **Room A412A**

The Path to Graduate School

This workshop focuses on the process of applying to graduate school. Hear about what things to consider when you are making the decision to apply to graduate school and how to search for programs that fit your needs and interests, and learn how to put together the best application possible. This session is designed to be very interactive –lots of questions from the audience and a conversation of the do's and do not's for writing a statement of purpose, requesting letters or recommendation, etc. You will come out of this session with a more concrete idea of whether or not graduate school is a good choice for you as well as strategies for putting together a solid application.

1:30 pm–2:30 pm — **Room A412A**

BME Entrepreneurial Careers

Entrepreneurs discuss translating ideas from the university to commercial use. Panelists will discuss tips and insight into how to take an idea from concept to commercial product. Discussion will include university resources, finding funding, IP, licensing and start-up options.

1:45 pm–3:15 pm — **Room A310**

BMES Student Chapter: BMES Undergraduate Student Design Competition

The theme of this year's competition is Tissue Design, focusing on interactions between medical devices. The session will bring together the top 6 winning design teams that were selected. The top 6 include Clemson University, Johns Hopkins University, Lawrence Technological University and Virginia Commonwealth University (with 3 design entries). This competition allows each design team to orally present their projects and students to ask questions after each presentation.

Upon completion of all presentations, the judges will select and announce the top 3 winners. Winners will receive First, Second and Third place prize money during the awards ceremony on Saturday, October 20 during the Plenary at 10:30 am.

2:30 pm–4:00 pm — **Exhibit Hall A1-A3: Career Zone**

Rapid Resume Review–Members Only

Experienced BME professionals will review an electronic or hard copy of your resume and work with you to make improvements. Or simply get some career advice.

3:30 pm–5:00 pm — **Room A412A**

Networking Effectively Online and in Person

Networking is one of the quickest ways to a new job. Networking means staying in touch with people you know, and meeting new people. Employers really prefer to hire someone known to a current employee than a complete stranger. Connecting with people at your target employers or choosing to work for an employer because you already have friends who work there is one of the most effective methods of landing a new job.

At this highly motivational workshop facilitated by an internationally renowned television personality, communication and professional development training expert, and author, Nadia Bilchik, President of Greater Impact Communications. You will be introduced to strategies for establishing and maintaining career relationships through social media and in person.

Student and Early Career Programs

Alpha Eta Mu Beta (AEMB) Programs

Thursday, October 18

1:00 pm–3:00 pm — **Georgia State Meeting Room**

Alpha Eta Mu Beta, Mentoring for INnovative Design Solutions (MINDS) Workshop

Session Co-chairs: **Teresa A. Murray, PhD; Alicia Fernandez-Fernandez, PhD, DPT and Dominic E. Nathan PhD.**

Participation in this workshop is by invitation after successfully competing for a spot on a design team to address this year's design/research topic (please see http://www.alphaetamubeta.org/ for application instructions). Students will work in teams of 4 based on similar interests. Each team will have a mentor who will assist the team in creating a potentially marketable innovation. The mentor will help students incorporate key design considerations, including (i) market considerations for commercialization, (ii) regulatory strategy, and (iii) intellectual property protection. After the workshop, students will meet virtually (e.g., via Skype) for up to 5 months to further refine their innovation. They will also be required to produce a more extensive presentation of their product, such as a video for a Kickstarter campaign, or a PowerPoint presentation for a group of potential investors. We will alert participants about opportunities for design contests, investment, and grant programs to further promote and develop their innovations. This program requires a 5 month commitment.

4:00 pm–5:30 pm — **Georgia State Meeting Room**

Alpha Eta Mu Beta Annual Meeting

Session Co-chairs: **Teresa A. Murray PhD; Alicia Fernandez-Fernandez, PhD, DPT; Kerri A. Green, MS; Bahar Dhowan, MS, Lauren Pruett,BS, Shyanthony Synigal, BS, Sara Mohamed, BS, and Dominic E. Nathan PhD**

At this annual meeting, members representing chapters nationwide will come together to discuss important contemporary events relating to AEMB. (Attendance is mandatory for all AEMB members). If you would like to learn more about AEMB or start a new chapter at your school, please consider attending this session and speaking to any of the national officers, or stop by our table for more information.

Alpha Eta Mu Beta–Annual Ethics Session

Friday, October 19

9:00 am–10:15 am — **Georgia State Meeting Room**

Robot Caregivers and Health Care: Ethical Challenges for Engineers

(open to all attendees)

Session Co-chairs: **Jason Borenstein, PhD, and Shyanthony Synigal, BS**

Computing technology is increasingly making its way into health care environments. This includes the use of artificial intelligence (AI) to assist with medical diagnoses. According to some predictions, we may be nearing a time when AI becomes more reliable than physicians at identifying a patient's illness and perhaps even offering a treatment recommendation. Integrating AI systems into medical decision-making in this and other ways of course raises important ethical, legal, and policy issues that need to be addressed. Yet the focus of this presentation will be on a particular type of computing technology that requires attention as well: physically-embodied robots used to provide health care. Many types of robots are, or eventually will be, used in care environments. For example, some robots are tasked with delivering prescription drugs to patients; others can function as cleaners, which could involve sweeping a patient's floor. There are also sophisticated robotic systems that assist with surgical procedures. Other types, including robotic exoskeletons, are classified as prosthetic devices; these robots are designed to be physically attached to a patient and are sometimes used to assist with rehabilitation sessions. Each of these technologies warrants a thorough ethical analysis. Yet the specific aim here is to identify ethical issues emerging from robots designed to serve as caregivers or companions. Engineers and other designers are creating robot caregivers to provide assistance, including at times comfort and support, to variety of populations. Children and older adults, for example, are often identified as potential users of the technology. However, those involved in the design process for robot caregivers need to be cognizant of many emerging ethical concerns. This presentation will provide an overview of some of these concerns, including that patients or others who interact with robots may "overtrust" the technology. Another issue that will be discussed is whether the availability of robots may contribute to less frequent human-to-human interaction, including between patients and health care providers.

Alpha Eta Mu Beta (AEMB), the International Biomedical Engineering Honor Society, is committed to promoting ethics in the field of biomedical engineering. This year, AEMB is honored to host Dr. Jason Borenstein as our distinguished ethics speaker. Dr. Borenstein received his B.S. in Biology and a B.A. in Philosophy from Emory University. He also attended the University of Miami where he received both his M.A. and Ph.D. in Philosophy. At the Georgia Institute of Technology, Dr. Borenstein serves as the Director of the Graduate Research Ethics Program and also the Associate Director of the Center for Ethics and Technology. He is also affiliated with the Institute of Robotics and Intelligent Machines with a primary research area in collaborative robotics. His areas of interest are related to bioethics, engineering ethics, robot ethics, and research ethics. He is currently a Co-Principal Investigator on a five year project funded by the National Science Foundation entitled "Institutional Transformation: The Role of Service Learning and Community Engagement on the Ethical Development of STEM Students and Campus Culture". Dr. Borenstein is an advocate for effective communication amongst scientists and their audiences, and as a result he has utilized writing as his prime medium. For instance, he is the founder and former editor of the Journal of Philosophy, Science, and Law. Additionally, he assists in editing numerous publications such as the journal of Science and Engineering Ethics, the Stanford Encyclopedia of Philosophy, and Research Ethics for the National Academy of Engineering's Online Ethics Center for Engineering and Science. Dr. Borenstein is also well published and his work has appeared in numerous professional journals including AI & Society, Communications of the ACM, Science and Engineering Ethics, the Journal of Academic Ethics, Ethics and Information Technology, IEEE Technology & Society, Accountability in Research, and the Columbia Science and Technology Law Review. For more information on Dr. Borenstein, please see his personal website: https://tinyurl.com/ybo9y83b.

Friday, October 19

11:30 am–1:00 pm — **McCormick & Schmicks In CNN Center across from the GWCC)**

Alpha Eta Mu Beta Reception

(ticket purchase required)

Session Co-chairs: **Teresa A. Murray PhD; Alicia Fernandez-Fernandez, PhD; DPT, Kerri A. Green, MS; Bahar Dhowan, MS; Lauren Pruett, BS; Shyanthony Synigal, BS; Sara Mohamed, BS and Dominic E. Nathan PhD**

The Annual AEMB reception will be held at McCormick & Schmicks, Atlanta, GA. New charters and national awards will be presented at this session. Furthermore, this session will serve as a networking opportunity to meet with other fellow members from AEMB chapters, representatives from industry and academia. This session is open to all AEMB student and faculty members. For tickets, please contact: aemb@alphaetamubeta.org

1:15 pm–2:45 pm — **Georgia State Meeting Room**

AEMB/BMES Regulatory and Intellectual Property Protection Strategies

(open to all attendees)

Session Co-chairs: **Teresa A. Murray, PhD and Alicia Fernandez-Fernandez, PhD, DPT**

Learn important considerations for translating medical device designs from the classroom and the lab into commercially viable products to improve human health and wellbeing. Experts from the medical device industry will describe how to determine the market for a product and the pathways to gain regulatory approval (US and global). Additionally, a patent attorney will present strategies to protect intellectual property, another critically important step toward creating a commercially viable device.

This session is open to all conference attendees and is part of the Mentoring for INnovative Design Solutions (MINDS) Scholar Program, which is run by Alpha Eta Mu Beta and funded through the National Science Foundation. The session is co-sponsored by BMES.

The Society takes great pleasure in honoring and recognizing the significant accomplishments and contributions its members have made in the diverse field of Biomedical Engineering.

On behalf of the Awards Committee we would like to thank all the members who submitted nominations and provided letters of support for all award nominees.

Congratulations to the following Award Winners:

Thursday, October 18–Plenary Session

10:15 am **Sidney Marcus Auditorium**

Robert A. Pritzker Distinguished Lecture Award

Rashid Bashir, PhD
University of Illinois at Urbana-Champaign

5:30 pm **Sidney Marcus Auditorium**

Diversity Lecture Award

Anjelica L. Gonzalez, PhD
Yale University

Friday, October 19–Plenary Session

10:15 am **Sidney Marcus Auditorium**

BMES Extended Abstracts: Student Design and Research Awards

GRADUATE STUDENTS

Catherine Gorick
University of Virginia

Byungji Kim
University of California San Diego

Jacob VanderBurgh
Vanderbilt University

Madhurima Vardhan
Duke University

Lisa Volpatti
Massachusetts Institute of Technology

UNDERGRADUATE STUDENTS

Fanny Chen
Cornell University

Shubhayu Bhattacharyay
Johns Hopkins University

Patrick Giolando
Purdue University

Joseph Maggiore
University of Pennsylvania

Anjali Patel
Saint Louis University

Kristin Quah
Vanderbilt University

Amanda Rakoski
Texas A&M University

Arth Shah
Virginia Commonwealth University

Friday, October 19–Plenary Session

10:15 am **Sidney Marcus Auditorium**

BMES Journal Paper Awards

Annals of Biomedical Engineering (ABME)

ABME Editor's Choice Award

Additive Manufacturing of Biomaterials, Tissues, and Organs
Amir Zadpoor, *Delft University of Technology*

Subject Specific Optimisation of the Stiffness of Footwear Material for Maximum Plantar Pressure Reduction
Panagiotis Chatzistergos, *Staffordshire University*

Alginate Sulfate-Nanocellulose Bioinks for Cartilage Bioprinting Applications
Marcy Wong, *ETH Zurich*

State-of-the-Art Review of 3D Bioprinting for Cardiovascular Tissue Engineering
Bin Duan, *University of Nebraska Medical Center*

ABME Most Cited

3D Bioprinting for Tissue and Organ Fabrication
Ali Khademhosseini, *UCLA*

ABME Most Downloaded

Ranges of Injury Risk Associated with Impact from Unmanned Aircraft Systems
Steve Rowson, *Virginia Tech*

Athanasiou ABME Student Awards

Ranges of Injury Risk Associated with Impact from Unmanned Aircraft Systems
Eamon Campolettano, *Virginia Tech*

Robotic Surgery Improves Technical Performance and Enhances Prefrontal Activation During High Temporal Demand
Harsimrat Singh, *Imperial College London*

Towards alternative approaches for coupling of a soft robotic sleeve to the heart
Markus Horvath, *MIT*

In-Vitro detection of small isolated Cartilage Defects: Intra-Vascular Ultrasound vs. Optical Coherence Tomography
Tim Horeman, *Delft University of Technology*

Mechanical and Clinical Evaluation of a Shape Memory Alloy and Conventional Struts in a Flexible Scoliotic Brace
Wing Yu Chan, *The Hong Kong Polytechnic University*

Augmented Reality Based Navigation for Computer Assisted Hip Resurfacing: A Proof of Concept Study
He Liu, *Imperial College London*

Cardiovascular Engineering and Technology (CVET)

CVET Most Downloaded

Dynamic Viscoelasticity and Surface Properties of Porcine Left Anterior Descending Coronary Arteries
Hanna E. Burton; Jenny M. Freij; Daniel M. Espino
March 2017, Volume 8, Issue 1, pp 41–56.

CVET Most Cited

Assessment of CFD Performance in Simulations of an Idealized Medical Device: Results of FDA's First Computational Interlaboratory Study
Sandy F. C. Stewart; Eric G. Paterson; Greg W. Burgreen; Prasanna Hariharan; Matthew Giarra; Varun Reddy; Steven W. Day; Keefe B. Manning; Steven Deutsch; Michael R. Berman; Matthew R. Myers; Richard A. Malinauskas
2 June 2012, Volume 3, Issue 2, pp 139–160.

Cellular and Molecular Bioengineering

CMBE Most Downloaded

Nanomaterials for the Capture and Therapeutic Targeting of Circulating Tumor Cells
Z. Zhang and M.R. King.
Cell Mol Bioeng. 2017;10(4):275-94.

CMBE Editor's Choice Award

A Microfluidic Model of Hemostasis Sensitive to Platelet Function and Coagulation
R.M. Schoeman; K. Rana; N. Danes; M. Lehmann; J.A. Di Paola; A.L. Fogelson; K. Leiderman; and K.B. Neeves.
Cell Mol Bioeng. 2017; 10(1): 3-15.

Friday, October 19–Plenary Session

5:15 pm **Sidney Marcus Auditorium**

The Wallace H. Coulter Award for Healthcare Innovation

Josh Makower, MD
Stanford Byers Center for Biodesign

BMES Student Chapter Awards

2018 Outstanding Achievement Award

University of Southern California

2018 Commendable Achievement Award

San Jose State University

2018 Outstanding Outreach Program Award

University of California Los Angeles

2018 Outstanding Mentoring Program Award

University of California Davis

2018 Outstanding Chapter Industry Program Award

Purdue University

Saturday, October 20–Plenary Session

10:30 am **Sidney Marcus Auditorium**

Rita Schaffer Young Investigator Award

Emily Day, PhD
University of Delaware

Mid-Career Award

Cynthia Reinhart-King, PhD
Vanderbilt University

Congratulations to all the 2018 BMES Career Development Award, BMES-NSBE (National Society of Black Engineers) Student Travel Award, and BMES Student Travel Award winners. Please pick up your award check at registration.

BMES Career Development Awards

Isaac Adjeiq
University of Florida

Ghuncha Ambrin
University of Massachusetts, Dartmouth

Marcos Barcellona
Washington University in St. Louis

Evans Bernardin
University of South Florida

Leslie Chan
Massachusetts Institute of Technology

Si (Stacie) Chen
University of Illinois at Urbana-Champaign

Nathan Cho
University of Southern California

Renee Cottle
Clemson University

Anna Colleen Crouch
University of Michigan

Priscilla Do
Emory University

Morgan Elliott
Johns Hopkins University

Meghan Ferrall-Fairbanks
Moffitt Cancer Center and Research Institute

Emily Gosselin
University of Maryland - College Park

Kelsey Gray
University of Maryland

Hannah Grover
Thayer School of Engineering, Dartmouth College

Zeinab Hajjarian
Massachusetts General Hospital

Jamila Hedhli
University of Illinois at Urbana Champaign

Cherice Hughes-Oliver
Virginia Tech

Kalana Jayawardana
Vanderbilt University

Anjana Jeyaram
University of Maryland, College Park

Franck Kamga Gninzeko
Virginia Commonwealth University

Keely Keller
University of Delaware

Chafica Kesserwan
Wayne State University

Ahyeon Koh
SUNY Binghamton University

Patrick Link
Virginia Commonwealth University

Davi Lyra-Leite
University of Southern California

Kevin McHugh
Massachusetts Institute of Technology

Alexa Melvin
University of Louisville

Marcela Mireles Ramirez
Rochester Inst of Technology & Univ of Rochester

Olivia Ngo
Drexel University

Laura Osorno
Rowan University

Jude Phillip
Weill Cornell Medicine

Faisal Reza
Centers for Disease Control and Prevention

Evelia Salinas
University of California-Irvine

Shier Nee Saw
National University of Singapore

Sejin Son
University of Michigan

Ishita Tandon
University of Arkansas

Jennifer Wilson
Stanford University

Joycelyn Yip
University of Southern California

Bethany Young
Virginia Commonwealth University

Rana Zakerzadeh
University of Texas at Austin

Zhenjiang Zhang
Vanderbilt University

Alexis Ziemba
Rensselaer Polytechnic Institute

BMES-NSBE (National Society of Black Engineers) Student Travel Awards

Busola Alabi
University of Texas Southwestern Medical Center

Ashlee Colbert
Purdue University

Olufunto Faweya
Rice University

Korie Grayson
Vanderbilt University

Candace Grisham
Vanderbilt University

Demba Kah
University of Miami

Jordan Langston
Temple University

Danielle McLaurin
Mississippi State University

LaDeidra Monet Roberts
Cornell University

Michael Sutton
Columbia University

Kyle Thomas
Washington University in St. Louis

BMES Student Travel Awards

Alaa Abdelgawad
University of Arkansas

Dahlia Alkekhia
Brown University

Shelby Bess
University of Arkansas

Andrea Cancino
Illinois Institute of Technology

Jesse Fine
Texas A&M University & The Ohio State University

Estee George
The University of Akron

Jordan Harrod
Cornell University

Erika Kasen
Trine University

Siavash Mazdeyasna
University of Kentucky

Melissa Mendoza
Binghamton University

Jenna Mosier
Mississippi State University

Bryan Nerger
Princeton University

Katherine Nguyen
University of California, San Diego

Michael Nguyen-Truong
Colorado State University

Thea Ornstein
University of Maryland College Park, Fischell Department of Engineering

Jitendra Pant
University of Georgia

Divya Patel
University of Maryland, College Park

Diana Philip
The University of Akron

Sarah Snyder
Cornell University

Connor Virgile
University of Rochester

Reo Yoo
University of California, San Diego

CONGRATULATIONS!
BMES 2018 CLASS OF FELLOWS

BMES Fellow status is a distinguished honor awarded to members with outstanding qualifications and experience, who have demonstrated exceptional achievement in the field of biomedical engineering. Recipients have also maintained a consistent record of membership and participation within the Society. .

FELLOW RECIPIENTS

Debra Auguste, PhD	**Shelia Grant, PhD**	**Martine LaBerge, PhD**
Victor Barocas, PhD	**Michele Grimm, PhD**	**Noshir Langrana, PhD**
Kristen Billiar, PhD	**Kevin Healy, PhD**	**J. Kent Leach, PhD**
Nenad Bursac, PhD	**Clark Hung, PhD**	**Abraham Lee, PhD**
Christopher Chen, MD, PhD	**Catherine Klapperich, PhD**	**Jason Papin, PhD**
Naomi Chesler, PhD	**Jeffrey Karp, PhD**	**Lonnie Shea, PhD**
Claudia Fischbach-Teschl, PhD	**Robert Keynton, PhD**	**Jan Stegmann, PhD**

Fellows will receive Awards at the plenary session on Thursday, October 18, 2018 at 5:30pm in the Sidney Marcus Auditorium.

Industry Programs

Wednesday, October 17

7:30 pm–8:30 pm — **Omni Hotel Magnolia Room**

Industry and Clinical Committee Meeting

By Invitation Only

Thursday, October 18

7:00 am–8:00 am — **Room A308A**

Council of Industry Chapter Presidents

By Invitation Only

8:00 am–10:00 am — **Room A402**

Tech Transfer Innovation Challenge

1:15 pm–3:15 pm — **Room A402**

Entrepreneur Workshop

Ticket Purchase Required

7:00 pm–8:30 pm — **STATS Brewpub**

Industry and Clinical Mixer

Ticket Purchase Required

Hosted at STATS Brewpub, this event is an opportunity for industry professionals and clinicians attending the conference to network in a fun setting. Hors d'oeuvres and one free drink will be provided for those in attendance.

Industry and Clinical Mixer sponsored by

BK BROOKS KUSHMAN
INTELLECTUAL PROPERTY AND TECHNOLOGY LAW

Friday, October 19

8:00 am–9:00 am — **Room A402**

Product Development Implications based on FDA Medical Device Classification

Chair: **Christopher Basciano, BD**

A panel based presentation and discussion on FDA device classifications and their impact on requirements for new product development. Specific content will include discussions on the regulatory submission pathways, sterilization methods, physics-based computer modeling and simulation, and the role of ASTM/ISO standards in the regulatory submission.

9:00 am–10:15 am — **Room A402**

Connecting Engineering Skillsets with Professional Achievement and Advancement

Chair: **Christopher Basciano, BD**

The medical technology and pharmaceutical industries contain a broad range of career pathways that includes positions at small companies, global corporations, and regulatory agencies. Successful entry and advancement for each organization often requires individual professionals or students to navigate open-ended scenarios that extend beyond technical work completed in a laboratory, office, or classroom. To help students and professionals make informed decisions on the value of different skillsets and equip individuals for making their next career transition, the current session will present descriptions on different career pathways and offer guidance from professionals who are employed in various medical organizations. Responses from an anonymized survey of multiple industry professionals giving their opinions on career advancement and professional achievement will also be presented as part of the discussion.

1:00 pm–2:30 pm — **Room A402**

Clinical Innovators Spotlight

BMES INDUSTRY CHAPTERS

BMES Industry Chapters directly address the needs of both the clinical and industrial BME professionals by providing networking, professional development, and business development opportunities, as well as recruiting opportunities and the general development of a BME community.

Atlanta Industry Chapter
Boston Industry Chapter
Denver Industry Chapter
Houston Industry Chapter
Indiana Industry Chapter
Minneapolis Twin Cities Industry Chapter
North Carolina Industry Chapter
Philadelphia Industry Chapter
San Francisco Bay Area Industry Chapter
St. Louis Region Industry Chapter

www.bmes.org/industry

Wednesday, October 17

3:30 pm–5:00 pm **Room A411**

BMES Student Chapter Development Event

Chairs: **Michael Brooks *(UC Davis)* and Sarah St. Clair *(UC Davis)***

Calling all BMES student chapter leaders! Join us for multiple, short presentations by the chapters leading the nation in various club aspects. These presentations will be followed by two breakout workshops chosen by you based on your personal interests.

The first breakout session period will focus on General Leadership and the second on Targeted Officer Roles. Work with your peers to generate new ideas and leadership strategies for your chapters. This event will generate exciting, new ideas for your chapters. As an added bonus, meet up with other student chapter leaders to start out the week and make weeklong and lifelong friends which will certainly improve your overall conference experience. Event hosted by BMES at UC Davis.

3:00 pm–5:00 pm **Omni Hotel Dogwood Room**

Black Women in Biomedical Engineering: Lessons for Healthy and Successful Career Advancement

(additional $20 ticket required)

Chairs: **C. LaShan Simpson, PhD; Princess Imoukhuede, PhD and Gilda Barabino, PhD**

According to a recent joint study released by the National Society for Black Engineers and the Society for Women Engineers, 25% of black women leave the engineering field within the first 5 years. Through this event, we hope to address some of the issues related to the dismal retention rates of black women in STEM. Extensive literature has shown that black women experience more oppression, poor work-life balance, and harsh work environments than their counterparts in STEM fields. Guest speaker, Dr. Joy

Harden Bradford, a licensed Psychologist in Atlanta, GA, and host of the weekly podcast "Therapy for Black Girls" will the address emotional and mental health issues, as well as provide tips for black women to survive and thrive in their professional careers.

This event is targeted towards black women in biomedical engineering, advocates, and those interested in the retention and career advancement of underrepresented and underserved populations in BME. The event will facilitate the retention of black women in the field. Through the lens and experiences of black women, much can be learned about how to promote healthy and successful careers for all BMEs. A networking reception will follow the session.

Thursday, October 18

8:00 am–9:30 am **Georgia State Room**

50th Anniversary Student Chapter Jeopardy Tournament

Chairs: **Martine LaBerge; Liz Richards and Matthew Brown**

Grab your classmates and professors and come show your school spirit at the 2018 BMES student chapter jeopardy tournament.

Student chapters from across the country will face off in a jeopardy tournament utilizing questions from biomedical engineering coursework and 50 years of BMES history in a fun, fast-paced, and friendly competition. Students will compete for prizes as well as for the inaugural BMES student chapter jeopardy title!

8:00 am–9:30 am **Room A301**

The Future of Bioelectronics: Materials, Processes, and Applications

Chairs: **Jonathan Rivnay *(Northwestern University)*; Tzahi Cohen-Karni *(Carnegie Mellon University)*; Chong Xie *(UT Austin)* and Jacob Robinson *(Rice University)***

The bioelectronics field encompasses a broad range of materials and devices. This symposium will highlight efforts in the field including organic and low dimensional carbon-based bioelectronic materials and devices for biosensing, diagnostics, actuation, drug delivery, and active tissue engineering. Focus will also be placed on both active and passive materials and processes meant to impart flexible, conformal, stretchable, and/or transient/degradable functionality. This symposium intends to further emphasize the need for cross-disciplinary efforts in the development of next-generation bio-integrated electronics by bringing together more fundamental research efforts with those of industrial participants—highlighting systems-level challenges (power and signal transmission/communication) and rising clinical needs.

Special Sessions

Thursday, October 18

8:00 am–9:30 am **Room A411**

State-of-the-Art ImmunoEngineering and Future Opportunities

Chairs: **Julia Babensee *(Georgia Tech/Emory University)*; Susan Thomas *(Georgia Tech/Emory University)* and Shadi Mamaghani *(NIBIB, NIH)***

The symposium will bring forth thought-leaders in immuno-Engineering to present state-of-the-art research and opportunities for future directions. Topics to be covered will represent the breath to which immunology intersects with different areas of biomedical engineering such as imaging, biomechanics, biomaterials and computational biology. ImmunoEngineering is a very timely subject of great interest to many bioengineers as wells as the funding agency, National Institutes of Health (NIH). The National Institute for Biomedical Imaging and Bioengineering (NIBIB) recently established the first ImmunoEngineering program at NIH. At this gathering of biomedical engineers, a panel discussion will be facilitated by the NIH representative, with the panel consisting of the four speakers and two co-chairs. The purpose of this discussion is to foster ideas from panelists and the audience. Issues to consider include opportunities for further engagement of the biomedical engineering community in immunoEngineering, identify gaps and opportunities for collaboration amongst the community and with immunologists, and how NIH programs can support such endeavors. The NIBIB is of the view that the biomedical engineering community can utilize their expertise and out-of-box solutions to help immunologists, cancer biologists or HIV experts to address unresolved issues that will benefit from a multidisciplinary team-based approach.

8:00 am–9:30 am **Room A310**

Single Cell Analysis and Tumor Heterogeneity

Chairs: **Sunitha Nagrath *(University of Michigan)* and Lydia Sohn *(UC Berkley)***

The tumor heterogeneity is a critical factor in understanding the biology of aggressive tumors and mechanisms underlying resistance to an expanding repertoire of targeted therapies in cancer. The session will focus on technology developments and the data analytics for single cell analysis to explore the tumor heterogeneity. The session will highlight important areas of single cell analysis including technologies and tools related to single cell isolation and single cell analytical methods (RNA, DNA, protein).

9:30 am–6:30 pm **Exhibit Hall A1**

High School Biomedical Engineering Expo

High school students primarily from traditionally under-represented backgrounds in science and engineering will have the opportunity to connect with biomedical engineers, students, faculty and industry, get exposure to the biomedical engineering field, and share projects they are working on related to life sciences (biology, chemistry, biotechnology, healthcare), biomedical engineering, or bioengineering. Selected students will present a poster in the exhibit hall during a poster competition at the Expo and prizes will be awarded to the top winners. The program is supported by funding through the National Science Foundation, National Institutes of Health and the Wallace H. Coulter Foundation (BMES Minority Network).

1:30 pm–3:00 pm **Room A301**

NIH Funding Panel Session

Chairs: **Zeynep Erim *(NIBIB)* and Tony Dickherber *(NCI)***

The session will provide an overview of NIH funding opportunities and resources particularly well-suited to the BME research community. NIH Program Officers and awardees will offer insights and "lessons learned" from the perspective of winning these NIH awards as well as in serving on NIH review panels. The session will explore how researchers may develop strategies to align their research interests with NIH opportunities and priorities. The session is supported by funding through the National Institutes of Health NIBIB, NCI, NIAMS, NICHD and NINDS.

1:30 pm–3:00 pm **Room A310**

Soft Material-Enabled Electronics for Medicine, Healthcare, and Human-Machine Interfaces

Chairs: **Prof. Woon-Hong Yeo *(Georgia Institute of Technology)* and Prof. Jae-Woong Jeong *(Korea Advanced Institute of Science & Technology, South Korea)***

The session will feature renowned speakers who made significant advancements in low-profile, stretchable wearable and implantable electronics for disease diagnostics, health monitoring, therapeutics, and machine interfaces. Introduction and discussion of the emerging technologies and systems regarding wearable and implantable biosensors and bioelectronics will make a direct contribution to the biomedical engineering society since this emerging research area is focusing on the development of advanced materials and engineering technologies to advance human health and well-being.

2:30 pm–5:00 pm **Room A411**

6th US-Korea Joint BMES Workshop

Chairs: **Ho-Wook Jun *(University of Alabama at Birmingham)* and Hanjoong Jo (*Emory University and Georgia Tech)***

The goal of the 6th Annual US-Korea Joint Workshop on Biomedical Engineering is to promote cooperation, collaboration, and networking between the members of Korean Society of Medical and Biological Engineering (KOSOMBE) and Biomedical Engineering Society (BMES). In the past five years, this annual Workshop has become increasingly well-known among biomedical engineers in both US and Korea, attracting >~100 PIs and trainees from both countries as part of the Annual BMES meeting. The workshop will cover topics on various convergent technologies to better understand and improve human health via different approaches in multi-disciplines including biomaterials, tissue engineering, mechanobiology, biotransport, neuro-engineering, exosome, and immunotherapies, drug delivery, medical imaging, immune cancer therapy, stem cell therapy, and bionanotechnology. The Workshop provides an important venue and serves as bridge for a long-term relationship and mutual benefit for both Society members in US and Korea.

3:45 pm–5:15 pm **Room A301**

DEBUT Winner Presentations and Award Ceremony

Chairs: **Zeynip Erim *(NIH/NIBIB)* and Phil Weilerstein *(VentureWell)***

The winners of the DEBUT (Design by Undergraduate Biomedical Teams) jointly sponsored by the National Institute of Biomedical Imaging and Bioengineering (NIBIB) and VentureWell, will present their projects and receive their awards. The session will conclude with a talk on "Next steps in the path to commercialization" by Colin J.H. Brenan, Founder and Chief Commercial Officer of HiFiBiO BV, Editor-in-Chief of IEEE PULSE Magazine.

3:45 pm–5:15 pm **Room A310**

Novel Photoacoustic Imaging: Systems, Computation, and Agents

Chairs: **Junjie Yao *(Duke University)*; Muyinatu (Bisi) Bell *(John Hopkins University)* and Jun Xia *(University of Buffalo)***

The special session will feature four world-leading experts on the latest breakthroughs in photoacoustic imaging, including Drs. Lihong V. Wang (Caltech, USA), Stanislav Emelianov (Georgia Tech, USA), Daniel Razansky (TUM, Germany), and Chulhong Kim (POSTCH, South Korea). Photoacoustic imaging, also referred to as optoacoustic imaging, is most sensitive to rich optical absorption contrast and has overcome the fundamental depth limit of high-resolution optical imaging. The image resolution, as well as the maximum imaging depth, is highly scalable with the optical and acoustic configurations at depths up to several centimeters in biological tissues. Photoacoustic imaging can provide anatomical (e.g., tumor angiogenesis and artery plaque), functional (e.g., neuronal activity and ischemic hypoxia), and molecular information (e.g., protein-protein interaction and gene expression) of living tissues. Photoacoustic imaging is a valuable tool for personalized medicine, using numerous exogenous contrast agents (e.g., organic dyes, metallic and nonmetallic nanoparticles, and reporter gene products) with biomarkers. The invited speakers will collectively cover four exciting topics: (1) Omniscale photoacoustic imaging from organelles to patients, (2) ultrafast photoacoustic imaging of biological functions and dynamics, (3) contrast agents for theranostic photoacoustic imaging, and (4) clinical and commercial translation of photoacoustic imaging.

Friday, October 19

8:00 am–9:30 am **Room A301**

Systems Thinking in the Education of Biomedical Engineering Students

Chairs: **Eberhard Voit and Denis Tsygankov**

This session is dedicated to discussions of innovative BME teaching modalities in the area of computational biomedical systems analysis and highlights novel ideas pertaining to classroom education in the rapidly emerging field of dynamical systems analysis in health and disease. The session begins with real-life illustrations from a critical care unit that set the stage by demonstrating the importance of systems-based biomedical engineering. The subsequent presentations describe different approaches toward fostering systems thinking in the next generation of biomedical engineers.

8:00 am–9:30 am **Room A311**

Advanced Biomanufacturing Session I: Advanced Tissue Biofabrication

Chairs: **Kaiming Ye *(Binghamton University, SUNY)* and Cheng Dong**

Advanced Biomanufacturing Special Interest Group (ABioM SIG) is pleased to organize two special sessions: "Advanced Cell Biomanufacturing" and "Tissue Biofabrication" to highlight grant challenges and R&D opportunities as well as workforce training in these emerging fields. Invited speakers include Director of National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL), Director of NSF Engineering Research Center (ERC) for Cell Manufacturing Technologies, Director of NIH Center for Engineering Complex Tissues, and pioneers and leaders in these fields.

Special Sessions

Friday, October 19

8:00 am–9:30 am **Room A411**

AAA-BMES Symposium: Engineering and Imaging the Stem Cell Niche for Guided Regeneration

Chair: **Scott Simon *(University of California-Davis)***

This symposium will focus on anatomical and bioengineering approaches. The theme of the symposium is multi-scale imaging and mechanical contributions to deriving stem cell derived therapeutic tissue growth with emphasis on the matrix and signaling events that are measurable using novel imaging and organoid-on-a-chip approaches.

1:15 pm–2:45 pm **Room A311**

Advanced Biomanufacturing Session II: Advanced Cell Biomanufacturing

Chairs: **Kaiming Ye *(Binghamton University, SUNY)* and Cheng Dong**

Advanced Biomanufacturing Special Interest Group (ABi-oM SIG) is pleased to organize two special sessions: "Advanced Cell Biomanufacturing" and "Tissue Biofabrication" to highlight grant challenges and R&D opportunities as well as workforce training in these emerging fields. Invited speakers include Director of National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL), Director of NSF Engineering Research Center (ERC) for Cell Manufacturing Technologies, Director of NIH Center for Engineering Complex Tissues, and pioneers and leaders in these fields.

1:15 pm–2:45 pm **GWCC, Georgia State Room**

AEMB/BMES Regulatory and Intellectual Property Protection Strategies

Learn important considerations for translating medical device designs from the classroom and the lab into commercially viable products to improve human health and wellbeing. Experts from the medical device industry will describe how to determine the market for a product and the pathways to gain regulatory approval (US and global). Additionally, a patent attorney will present strategies to protect intellectual property, another critically important step toward creating a commercially viable device. This session is open to all conference attendees and is part of the Mentoring for Innovative Design Solutions (MINDS) Scholar Program, which is run by Alpha Eta Mu Beta and funded through the National Science Foundation. The session is co-sponsored by BMES.

8:00 am–9:30 am **Room A404**

Young Innovators of Cellular and Molecular Bioengineering, Part I

1:15 pm–2:45 pm **Room A404**

Young Innovators of Cellular and Molecular Bioengineering, Part II

1:15 pm–2:45 pm **Room A409**

Engineering Solutions to Health Care Disparities

Chairs: **Gilda Barabino and Cato Laurencin**

Health and health care disparities remain a costly and burdensome challenge in the U.S. and pose a serious threat to continued improvement in overall quality of care and population health. Biomedical engineers are well positioned to employ novel biodesign strategies toward the elimination of these disparities. This interactive session will explore approaches for research and education related to the application of biomedical technologies and engineering designs to solve health disparities.
The session will feature outstanding designs developed in the 2018 BMES Coulter College.

1:30 pm–4:30 pm **Room A301**

BMES-NSF Special Session on CAREER and UNSOLICITED Awards

Preregistration Required

BMES and the National Science Foundation (NSF) have partnered to convene a special session focused on innovative research in biomedical engineering and grant writing. The session will bring together NSF Bioengineering and Engineering Healthcare grantees, young investigators, junior and senior faculty, and post-doctoral fellows for idea exchange and networking related to conducting and funding cutting-edge research in BME. The session will showcase NSF funded research and researchers, foster collaboration and idea exchange, familiarize participants with NSF funding mechanisms, and provide strategies for preparing competitive grant proposals, in particular NSF CAREER and unsolicited grant applications. The session is funded through the National Science Foundation. This material is based upon work supported by the National Science Foundation under Grant No. CBET–1824363. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

3:30 pm–5:00 pm **Room A411**

Physical Science Oncology Networking

Chairs: **Dennis Discher *(PSOC@Penn Director) and* Denis Wirtz *(PSOC Johns Hopkins Director)***

A Network of Physical Science Oncology Centers & Projects is being funded by the National Cancer Institute, and many faculty and students in Biomedical Engineering Departments are directors, investigators, or fellows in the Network. This symposium will describe the Center efforts while highlighting ongoing work and will breakup into small roundtable discussions to answer science questions and also describe opportunities for interactions. A reception will follow on Friday evening at the Omni Hotel at CNN Center to socialize and further network.

3:30 pm–5:00 pm **Room A409**

Athanasiou Annals of Biomedical Engineering Student Award Session

Chair: **Stefan Duma *(Virginia Tech)***

In 2017 the Kerry and Kiley Athanasiou Endowment was established within the Biomedical Engineering Society (BMES) to promote graduate students and post-doctoral scholars through their publications in the Annals of Biomedical Engineering (ABME). This session will include up to six speakers selected by the ABME Editorial Board based on their outstanding publications in ABME during the past year. Each award recipient will present a 10 minute summary of their paper followed by 5 minutes of Q&A. A plaque and award of $500 will be presented to each winner.

3:30 pm–5:00 pm **Room A310**

BMES Graduate Medical Innovation Program Workshop Part III: Defining Student Archetype(s)

Chairs: **Jennifer Amos *(University of Illinois at Urbana-Champaign)*; Gilda A. Barabino *(The City College of New York)*; Jeffrey S. Garanich *(The City College of New York)* and Michael O'Donnell *(UC Berkeley/ UC San Francisco)***

Graduate medical innovation (GMI) programs provide pathways for engineers, life scientists, and MDs to amplify each other's efforts in developing new innovations in medicine. These programs are emerging from engineering departments, but also from medical schools, business programs, and entrepreneurship centers. All of these different graduate programs have in common the need to identify high-quality students with strong potential for success. At the same time, the process of bringing new medical technologies to market requires contributions from individuals with disparate skill sets, such as engineers, researchers, clinicians, and entrepreneurs. This diverse range of skills demands a careful consideration of the student archetypes who should be included in such programs.

This workshop emerged from the second GMI Program Workshop, held at the 2017 BMES Annual Meeting; at that event, a break-out session brainstormed attributes of "ideal" candidate students for GMI programs. Following up on that workshop, the organizers distributed surveys to both administrators and alumni of GMI programs. The 2018 Workshop will include detailed review and discussion of the results of these surveys, with the goal of continuing to define the archetype(s) of prospective students with the potential for success in this style of program.

Saturday, October 20

8:00 am–9:30 am **Room A310**

Application of Two Dimensional Materials in Healthcare

Chair: **Aida Ebrahimi *(Pennsylvania State University)***

2D materials offer high sensitivity due to large surface area, thin atomic profile, tunable electronic/optical properties, flexibility, mechanical strength, and optical transparency. The distinct chemical and physical properties of 2D materials make them ideal for detecting various biological targets, such as nucleic acids, proteins, and small molecules. In recent years, 2D materials and their composite structure with other nanoscale materials (such as nanoparticles, enzymes, nanotubes) have attracted great attention in various technologies related to healthcare, including biochemical sensors, drug delivery, design of in vivo probes, substrate for immobilization of biomolecules, etc. This Special Session intends to share some of the exciting research efforts in the filed on application of 2D materials in healthcare, and can create new collaborative opportunities between the attendees with different areas of expertise, including biomedical engineering, materials science/engineering, electrical engineers, and chemical engineering.

Special Sessions

Saturday, October 20

8:00 am–9:30 am **Room A311**

Scientific Advancement in the Biomechanics of Prosthetic Heart Valves

Chair: **Ajit Yoganathan *(Georgia Institute of Technology and Emory University)***

Over the past 60 years, prosthetic heart valves have evolved from mechanical valves to tissue valves implanted surgically, to recent stented tissue valves implanted percutaneously. As one of the major medical devices in clinical cardiovascular disease treatment, prosthetic heart valve has dramatically improved the quality and length of the lives of millions of patients worldwide who otherwise may have no treatment options. Behind its marvelous success, biomedical engineering analysis has played a critical role in improving prosthetic valve design and functionality. In the symposium, we will review and discuss the scientific advancement of prosthetic valve design and the associated engineering analyses done in the past 60 years, ongoing research, and future research directions.

8:00 am–9:30 am **Room A301**

BMES-NSF Special Session on Graduate Research Fellowships Program

Preregistration Required

BMES and the National Science Foundation (NSF) have partnered to convene a special session focused on NSF's Graduate Research Fellowships Program (GRFP). The goal of the session is to bring together program officers, grantees, reviewers and graduate students to highlight the NSF GRFP and inform undergraduate and graduate students on GFRP guidelines and strategies to develop winning GRFP grant proposals. The session is funded through the National Science Foundation. This material is based upon work supported by the National Science Foundation under Grant No. CBET–1824363. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

1:30 pm–3:00 pm **Room A310**

International Collaboration in Biomedical Engineering Education

Chairs: **Damir Khismatullin *(Tulane University)* and Song Li *(UCLA)***

This special session will highlight progress in the development of joint biomedical engineering programs between U.S. universities and universities in China, Singapore, and South Korea. This event is a key step in forming partnerships between the BMES and biomedical engineering societies abroad. The invited speakers will share their experience in development/running of international BS/MS/PhD Programs in Biomedical Engineering.

Download the BMES 2018 Annual Meeting Mobile App!

Navigate the event *Like A Pro* with the BMES 2018 mobile app, powered by Core-apps

With the BMES 2018 mobile app, you can:

- ***Stay organized with up-to-the-minute Exhibitor, Speaker, and Session information***
- ***Sync the app across all of your devices***
- ***Receive important real-time communications from BMES***
- ***Build a personalized schedule and bookmark exhibitors***
- ***Take notes and download event handouts and presentations***
- ***Rate the sessions you attend and comment on them, too***
- ***Locate sessions and exhibitors on the Georgia World Congress Center maps***
- ***Find attendees and connect with your colleagues through Friends***
- ***Stay in-the-know and join in on social media with #BMES2018***
- ***Share your event photos and experiences with the Photo Gallery***
- ***And much, much more!***

DOWNLOADING THE APP IS EASY!

SCAN: *Use your devices QR code scanner to quickly find the **BMES 2018** app.*

SEARCH: *The App Store or Google Play for **"BMES"***

FOR ALL OTHER DEVICE TYPES: *(including BlackBerry, Windows, and other web browser-enabled devices): point your mobile browser to:*
www.core-apps.com/dl/bmes2018
to be directed to the proper download version for your device.

Once you have downloaded and opened the app choose **BMES 2018** *and tap Download.*

Platform Compatibility: Android v4x+ and iOS v7x+
Should you have any questions, please contact: **support@core-apps.com**

GET IT ON Google Play

Available on the App Store

Bioinformatics and Systems Biology

Jason Papin
University of Virginia

Megan McClean
University of Wisconsin

Biomaterials

Adam Engler
University of California San Diego

Katie Bratlie
Iowa State University

Biomechanics

Stefan Duma
Virginia Tech

Amit Pathak
Washington University in St. Louis

Biomedical Engineering Education

Colin Drummond
Case Western University

Devin K. Hubbard
UNC/NC State

Biomedical Imaging and Instrumentation

Kyle Quinn
University of Arkansas

Stanislav (Stas) Emelianov
Georgia Tech

Cancer Technologies

Amy Brock
University of Texas at Austin

Kostas Kostantopoulos
Johns Hopkins University

Cardiovascular Engineering

Marsha Rolle
Worcester Polytechnic Institute

Lauren Black
Tufts University

Cellular and Molecular Bioengineering

Princess Imoukhuede
University of Illinois–Urbana-Champaign

Kimberly Stroka
University of Maryland

Device Technologies and Biomedical Robotics

Abidemi Ajiboye
Case Western University

Mike McShane
Texas A&M

Drug Delivery and Intelligent Systems

Jamal Lewis
University of California Davis

Erin Lavik
University of Maryland Baltimore County

Nano and Micro Technologies

Emily Day
University of Delaware

John Zhang
Dartmouth College

Neural Engineering

Stephanie Seidlits
University of California Los Angeles

Abigail Koppes
Northeastern University

Orthopedic and Rehabilitation Engineering

Peter Yang
Stanford University

Vincent Wang
Virginia Tech

Respiratory Bioengineering

Gregg Duncan
University of Maryland

Rebecca Heise
Virginia Commonwealth University

Stem Cell Engineering

Stephanie Willerth
University of Victoria

Kris Saha
University of Wisconsin

Tissue Engineering

Janet Zoldan
University of Texas at Austin

Warren Grayson
Johns Hopkins University

Translational Biomedical Engineering

Mark Van Dyke
Virginia Tech

Daniel Elson
Imperial College London (UK)

Undergraduate Research & Design

Casey Akeny
Northwestern University

Sarah Rooney
University of Delaware

Thank you to our Reviewers for their Time and Effort

Bioinformatics, Computational and Systems Biology

Kelly Arnold
Olivia Burnsed
Patrick Cahan
Sriram Chandrasekaran
Rachel Childers
Benjamin Cosgrove
Colin Drummond
Mohammad Fallahi-Sichani
Ruogu Fang
Stacey Finley
Joshua Grolman
Sangyoon Han
Kevin Janes
Paul Jensen
Melissa Kemp
Christine King
Pamela Kreeger
Grant Kruger
Matthew Lazzara
Michael Mak
Angelo Mao
Prahlad Menon
Kathryn Miler-Jensen
Kristen Naegle
Shayn Peirce-Cottler
Elsje Pienaar
Manu Platt
Justin Pritchard
William Richardson
Arthur Ritter
Casim Sarkar
Jeff Saucerman
Priya Shah
Xiling Shen
Mary Staehle
Gregory Szeto
Cheemeng Tan
Jared Weis
Levi Wood
Lingchong You
Ioannis Zervantonakis

Biomaterials

Rosalyn Abbott
Daniel Alge
Leon Bellan
Ashley Brown
Olivia Burnsed
Ovijit Chaudhuri
Rachel Childers
Cole DeForest
Yizhou Dong
Tim Downing
Erik Dreaden
Craig Duvall
Adam Engler
Adam Feinberg
Claudia Fischbach
Penny Gilbert
Adam Gormley
Joshua Grolman
Brendan Harley
Brenton Hoffman
Nathaniel Huebsch
Nicole Iverson
Jeffrey Jacot
Ning Jenny Jiang
Shan Jiang
Neha Kamat
Ali Khademhosseini
Forrest Kievit
Deok-Ho Kim
Christine King
Grant Kruger
Sanjay Kumar
Ester Kwon
Kent Leach
Jungwoo Lee
Jennifer Leight
Prashant Mali
Angelo Mao
Michael Mitchell
Mary Beth Monroe
Brenda Ogle
Shelly Peyton
Jesse Placone
Sharon Presnell
Andrew Putnam
Raj Rao
Cynthia Reinhart-King
Geert Schmid-Schoenbein
Ian Schneider
Blanka Sharma
Yunfei Shi
Jae-Won Shin
Craig Simmons
Ankur Singh
Aleksander Skardal
Michael Smith
Jan Stegemann
Laura Suggs
Jay Sy
Omid Veiseh
Gordana Vunjak-Novakovic
Qun Wang
Jennifer West
Catherine Whittington
Jeffrey Wolchok

Biomechanics

Vinay Abhyankar
Patrick Alford
Kyle Allen
Rouzbeh Amini
Ashley Brown
Olivia Burnsed
Rachel Childers
Rhima Coleman
Daniel Conway
Kareen Coulombe
Joanna Dahl
Juan Del Alamo
Rafaella Devita
Tim Downing
Stefan Duma
Samir Ghadiali
Joshua Grolman
Brenton Hoffman
Andrew Kemper
Tae Yoon Kim
Christine King
Grant Kruger
Maureen Lynch
Mike Madigan
Michael Mak
Angelo Mao
Mohammad Mofrad
Amrinder Nain
Grace O'Connell
Bethany Rowson
Steve Rowson
Giuliano Scarcelli
Alok Shah
Yunfei Shi
Michael Smith
Brian Stemper
Joel Stitzel
Jillian Urban
Pam VandeVord
Leo Wan
Ian Wong

Biomedical Engineering Education (BME)

Asem Aboelzahab
Timothy Allen
Jenny Amos
Kristen Billiar
Philip Brown
Olivia Burnsed
Daniel Cavanagh
Rachel Childers
Jennifer Choi
Alisa Clyne
Colin Drummond
Diana Gaitan-Leon
Stephanie George
Richard Goldberg
Joshua Grolman
Eileen Haase
Devin Hubbard
Naji Husseini
Kamran Iqbal
Karin Jensen
Christine King
Grant Kruger
Jean-Michel Maarek
Amir Manbachi
Angelo Mao
Tanya Nocera
Ruth Ochia
Brian Plouffe
Renata Ramos
Sarah Rooney
Daniel Rueda
Mark Ruegsegger
Ann Saterbak
Scott Sell
C. LaShan Simpson
Jan Stegemann

Biomedical Imaging and Instrumentation

Costas Arvanitis
Carolyn Bayer
Tim Becker
Muyinatu Bell
Quincy Brown
Olivia Burnsed
Deva Chan
Rachel Childers
Bernard Choi
Mei-Lan Chu
Delphine Dean
Mark Does
Ayman El-Baz
Ruogu Fang
Baowei Fei
Gabriela Gallego
Sleiman Ghorayeb
Craig Goergen
Joan Greve
Joshua Grolman
James Henderson
Ken Hoyt
Tzung Hsiai
Xiaoping Hu
Songbai JI
Yuhao Jiang
Javier Jo
Curtis Johnson
Amit Joshi
Jana Kainerstorfer
Keigo Kawaji
Christine King
Sean Kirkpatrick
Jon Klingensmith
Grant Kruger
Mehmet Kurt
Juhyun Lee
Peter Lewin
Wei-Chiang Lin
Isidro Magana
Angelo Mao
Tom Milner
Timothy Muldoon
Xiaolin Nan
Walter O'Dell
Guillem Pratx
Christopher Price
Zhen Qiu
Narasimhan Rajaram
Christopher Raub
Joe Reinhardt
Francisco Robles
Thomas Royston
Carolina Salvador-Morales
Giuliano Scarcelli
Monica Shokeen
Andrew Smith
Yuankai Tao
Tom Yankeelov
Gang Yao
Junjie Yao
Hongki Yoo
Bing Yu
Guoqiang Yu
Baohong Yuan
Chao Zhou

Cancer Technologies

Vinay Abhyankar
Ashutosh Agarwal
Fernandez-Fernandez Alicia
Bahareh Behkam
Brian Booth
Olivia Burnsed
Weiqiang Chen
Rachel Childers
Farhan Chowdhury
Jeannine Coburn
Mahsa Dabagh
Guohao Dai
Nzola De Magalhaes
Maribella Domenech
Erik Dreaden
Aida Ebrahimi
Rohan Fernandes
Bingmei Fu
Daniel Gallego-Perez
Samir Ghadiali
Gargi Ghosh
Esther Gomez
Joshua Grolman
Xiaoming He
R. Lyle Hood
Huang Chiao Huang
Soojung Hur
Kamran Iqbal
Joseph Irudayaraj
Nicole Iverson
Sha Jin
Javier Jo
Parag Katira
Forrest Kievit
Yonghyun (John) Kim
Christine King
Grant Kruger
Ashish Kulkarni
Gabe Kwong
Jan Lammerding
Matthew Lazzara
Jungwoo Lee
Jennifer Leight
Francis Lin
Solorio Luis
Maureen Lynch
Isidro Magana
Michael Mak
Angelo Mao
Jyothi Menon
Hui-sung Moon
Kristen Naegle
Walter O'Dell
Madeleine Oudin
McCarty Owen
Prabir Patra
Marjan Rafat

Thank you to our Reviewers for their Time and Effort

Shreyas Rao
Smitha Rao
Christopher Raub
Jorge Rodriguez
Jai Rudra
Blanka Sharma
Xiling Shen
Jae-Won Shin
Vasudha Shukla
Ankur Singh
Barbara Smith
Tong Sun
Liping Tang
Hossein Tavana
Jared Weis
Catherine Whittington
Ian Wong
Bing Yu
Baohong Yuan
Ioannis Zervantonakis
Chao Zhou
Silviya Zustiak

Cardiovascular Engineering

Ashutosh Agarwal
B. Rita Alevriadou
Rouzbeh Amini
Deirdre Anderson
Reza Avaz
Ashley Brown
Olivia Burnsed
Stuart Campbell
Rachel Childers
Olivia Coiado
Alonzo Cook
Renee Cottle
Kareen Coulombe
Mahsa Dabagh
Guohao Dai
Tim Downing
Adam Feinberg
Ann Foley
Bingmei Fu
Glenn Gaudette
Stephanie George
Craig Goergen
Sheila Grant
Joshua Grolman
Jianjun Guan
Heather Hayenga
Xiaoming He
Tracy Hookway
Renita Horton
Nathaniel Huebsch
Jeffrey Jacot
Jinah Jang
Morten Jensen
Bin Jiang
Juan Jiménez
Jangwook Jung
Alexey Kamenskiy
Keigo Kawaji
Christine King
Grant Kruger
Sandeep Kumar
Ethan Kung
Kaveh Laksari
Juhyun Lee
Jun Liao
David Long
Loraine Lowder
Gretchen Mahler
Keefe Manning
Angelo Mao
Kristyn Masters
Megan McCain
Owen McCarty
Walter Murfee
Walter O'Dell
Brenda Ogle
Arghya Paul
Robert Peattie
Manu Platt
Gangjian Qin
Elaheh Rahbar
Raj Rao
Manuel Rausch
Arthur Ritter
Shuvo Roy
David Rubenstein
Sudeep Sastry
David Schmidtke
Samuel Senyo
Vahid Serpooshan
Hisham Sherif
Yan-Ting Shiu
Joao Soares
Kenji Sunagawa
Saeed Tiari
Lucas Timmins
Marcella Vaicik
Victor Varner
Zhenglun Wei
Seth Weinberg
Zhongjun Wu
Saami Yazdani
Young-sup Yoon
Rana Zakerzadeh

Cellular and Molecular Bioengineering

Rosalyn Abbott
Mohammad Abedin-Nasab
Vinay Abhyankar
Asem Aboelzahab
Ashutosh Agarwal
B. Rita Alevriadou
Janet Barzilla
Bahareh Behkam
Vimala Bharadwaj
Corey Bishop
Brian Booth
Ashley Brown
Olivia Burnsed
Weiqiang Chen
Rachel Childers
Eun Ji Chung
Alisa Clyne
Taylor Cohen
Rhima Coleman
Daniel Conway
Renee Cottle
Mahsa Dabagh
Sudip Dahal
Kris Dahl
Guohao Dai
Eric Darling
Aditi Das
Nzola De Magalhaes
Tara Deans
Wawrzyniec Dobrucki
Henry Donahue
Tim Downing
Aida Ebrahimi
Stacey Finley
Ann Foley
Stephanie Fraley
Bingmei Fu
Thomas Gaj
Daniel Gallego-Perez
Samir Ghadiali
Jason Gleghorn
Esther Gomez
Joshua Grolman
Jianjun Guan
Sangyoon Han
Sundararaghavan Harini
Xiaoming He
Brenton Hoffman
Zhongkui Hong
Renita Horton
Greg Hudalla
Soojung Hur
Kamran Iqbal
Nicole Iverson
Jeffrey Jacot
Abhishek Jain
Justyn Jaworski
Steven Jay
Sabrina Jedlicka
Paul Jensen
Julie Ji
Sha Jin
Ho-Wook Jun
Topp Justin
Neha Kamat
Parag Katira
Salman Khetani
YongTae Kim
Christine King
Grant Kruger
Charu Kumar
Sandeep Kumar
Anja Kunze
Gabe Kwong
Jan Lammerding
Simpson LaShan
Matthew Lazzara
Jennifer Leight
Francis Lin
David Long
Gretchen Mahler
Michael Mak
Angelo Mao
Venkat Maruthamuthu
Megan McCain
Owen McCarty
A.J. Mellott
Jyothi Menon
Brenda Ogle
Madeleine Oudin
Francesco Pasqualini
Prabir Patra
Jennifer Patterson
Arghya Paul
Ryan Pearson
Edward Phelps
Elsje Pienaar
Manu Platt
Gangjian Qin
Raj Rao
Shreyas Rao
Cynthia Reinhart-King
David Rubenstein
Daniel Rueda
Nima Saeidi
Casim Sarkar
Debanjan Sarkar
Parijat Sengupta
Samuel Senyo
Vahid Serpooshan
Allyson Sgro
Jason Shearn
Xiling Shen
Jae-Won Shin
Yan-Ting Shiu
Ankur Singh
Shannon Sirk
Andrew Smith
Joao Soares
Neelamegham Sriram
Sarah Stabenfeldt
Robert Steward Jr.
Yubing Sun
Paul Sundaram
Gregory Szeto
Cheemeng Tan
Aaron Timperman
Gregory Underhill
Victor Varner
Omid Veiseh
Leo Wan
Seth Weinberg
Catherine Whittington
Stephanie Willerth
Rebecca Willits
Levi Wood
Sangpil Yoon
Wujie Zhang
Silviya Zustiak

Device Technologies and Biomedical Robotics

Mohammad Abedin-Nasab
Vinay Abhyankar
Titus Albert
Daniel Alge
Tamara Baynham
Muyinatu Bell
Philip Brown
Olivia Burnsed
Daniel Cavanagh
Chaoyang Chen
J-C Chiao
Rachel Childers
Gerry Cote
Roche de Guzman
Dino Dicarlo
Zachary Dooley
Aida Ebrahimi
Evon Ereifej
Steve Fening
Alicia Fernandez-Fernandez
Akhilesh Gaharwar
Joshua Grolman
R. Lyle Hood
Soojung Hur
Kamran Iqbal
Joseph Irudayaraj
Roozbeh Jafari
Ali Khademhosseini
Salman Khetani
Brian Kim
Christine King
Grant Kruger
Ethan Kung
Anja Kunze
Chenzhong Li
Francis Lin
Jackie Linnes
Duncan Maitland
Kristen Maitland
Keefe Manning
Angelo Mao
Stephanie McCalla
Manuel Monge
Hui-sung Moon
Aydogan Ozcan
Zhen Qiu
Jessica Ramella
Daniel Ratner
Shuvo Roy
Hisham Sherif
Barbara Smith
Kenji Sunagawa
George Tan
Mark Van Dyke
Shannon Weigum
Zhongjun Wu
Conrad Zapanta

Thank you to our Reviewers for their Time and Effort

Drug Delivery and Intelligent Systems

Handan Acar
Abhinav Acharya
Kyle Allen
Eben Alsberg
Olivia Burnsed
Rachel Childers
Benjamin Cosgrove
Tara Deans
Erik Dreaden
Colin Drummond
Harvinder Gill
Michael Gower
Joshua Grolman
Huang Chiao Huang
Greg Hudalla
Nathaniel Huebsch
Ana Jaklenec
Chris Jewell
Lance Kam
Benjamin Keselowsky
Christine King
Grant Kruger
Jennie Leach
Kent Leach
Angelo Mao
Kristyn Masters
Mary Beth Monroe
Kristen Naegle
Edward Phelps
Manu Platt
Brian Plouffe
Renata Ramos
Jai Rudra
Evan Scott
Erkin Seker
Samuel Senyo
Blanka Sharma
Anita Shukla
Eduardo Silva
Ankur Singh
Neelamegham Sriram
Sarah Stabenfeldt
Mary Staehle
Jan Stegemann
Jill Steinbach-Rankins
Cheemeng Tan
Li Tang
Michaelann Tartis
Alice Tomei
Rebecca Wachs
John Wilson
Silviya Zustiak

Nano and Micro Technologies

Vinay Abhyankar
Ashutosh Agarwal
Frank Alexis
Kyle Allen
Bahareh Behkam
Leon Bellan
Evangelia Bellas
Danielle Benoit
Yevgeny Berdichevsky
Corey Bishop
Olivia Burnsed
Weiqiang Chen
J-C Chiao
Rachel Childers
Eun Ji Chung
Stuart Cogan
Derfogail Delcassian
Amber Doiron
Maribella Domenech
Erik Dreaden
Aida Ebrahimi
Evon Ereifej
Rohan Fernandes
Alicia Fernandez-Fernandez
Daniel Gallego-Perez
Jason Gleghorn
Sheila Grant
Jordan Green
Joshua Grolman
Zhen Gu
Jianjun Guan
Xiaoming He
R. Lyle Hood
Renita Horton
Huang Chiao Huang
Greg Hudalla
Soojung Hur
Kamran Iqbal
Joseph Irudayaraj
Nicole Iverson
Jeffrey Jacot
Abhishek Jain
Ning Jenny Jiang
Neha Kamat
Schilke Kate
Salman Khetani
Forrest Kievit
Brian Kim
Jinho Kim
YongTae Kim
Christine King
Grant Kruger
Ashish Kulkarni
Sandeep Kumar
Anja Kunze
Gabe Kwong
Hyowon Hugh Lee
Ian Limoli
Francis Lin
Jonathan Lovell
Xiaolon Luo
Gretchen Mahler
Michael Mak
Srivalleesha Mallidi
Angelo Mao
Stephanie McCalla
Jyothi Menon
Hui-sung Moon
Ki-Hwan Nam
Prabir Patra
Jennifer Patterson
Ryan Pearson
Gangjian Qin
Zhen Qiu
Shreyas Rao
Smitha Rao
Jai Rudra
David Schmidtke
Erkin Seker
Vahid Serpooshan
Vasudha Shukla
Ankur Singh
Barbara Smith
Yubing Sun
Gregory Szeto
Ali Tamayol
George Tan
Liping Tang
Omid Veiseh
Leo Wan
Shannon Weigum
Ian Wong
Jingwei Xie
Ioannis Zervantonakis

Neural Engineering

Tim Bruns
Olivia Burnsed
Chaoyang Chen
Rachel Childers
Kacy Cullen
Courtney Dumont
Daniel Ferris
Lisa Flanagan
Daniel Gallego-Perez
Ryan Gilbert
Joshua Grolman
Sarah Heilshorn
Jana Kainerstorfer
Zin Khaing
Christine King
Abigail Koppes
Ryan Koppes
Grant Kruger
Subhash Kulkarni
Anja Kunze
Kyle Lampe
Nic Leipzig
Angelo Mao
Kevin Otto
Bryan Pfister
Mario RomeroOrtega
Mark Sayles
Stephanie Seidlits
Erkin Seker
Yunfei Shi
Ankur Singh
Sarah Stabenfeldt
Flavia Vitale
Rebecca Wachs
Levi Wood
Matt Wood

Orthopedic and Rehabilitation Engineering

Titus Albert
Kyle Allen
Philip Brown
Olivia Burnsed
Chaoyang Chen
Yupeng Chen
Rachel Childers
Zachary Dooley
Steve Fening
Alicia Fernandez-Fernandez
Daniel Ferris
Matthew Fisher
Sheila Grant
Sarah Greising
Joshua Grolman
Teja Guda
Kamran Iqbal
Reva Johnson
Christine King
Grant Kruger
Ian Limoli
Yuan-Chiao Lu
Jason Luck
Angelo Mao
J. Lucas McKay
Jennifer Nichols
Carrie Peterson
Christopher Price
Jennifer Puetzer
Robin Queen
Christopher Raub
Nathan Schiele
Jason Shearn
Ramkumar T. Annamalai
George Tan
Michael Torry
Rebecca Wachs
Christopher Wagner
Hongwu Wang
Jennifer Wayne
Jingwei Xie

Respiratory Bioengineering

Kagya Amoako
Said Audi
Olivia Burnsed
Rachel Childers
Taylor Cohen
Yu Feng
Samir Ghadiali
Jason Gleghorn
Laleh Golshahi
Joshua Grolman
Kamran Iqbal
Jinho Kim
Christine King
Grant Kruger
Francis Lin
Katharina Maisel
Angelo Mao
Jyothi Menon
Robert Pouliot
Bradford Smith
Jung Soo Suk
Bela Suki
Saeed Tiari
Victor Varner
Darcy Wagner
Tilo Winkler
Rana Zakerzadeh

Stem Cell Engineering

Olivia Burnsed
Patrick Cahan
Rachel Childers
Benjamin Cosgrove
Guohao Dai
Tim Downing
Gargi Ghosh
Penney Gilbert
Joshua Grolman
Brendan Harley
Nathaniel Huebsch
Jeffrey Jacot
Salman Khetani
Kristopher Killian
Christine King
Grant Kruger
Subhash Kulkarni
Kyle Lampe
Kent Leach
Yan Li
Ethan Lippmann
Angelo Mao
Jeffrey Millman
Brenda Ogle
Raj Rao
Casim Sarkar
Debanjan Sarkar
Blanka Sharma
Jae-Won Shin
Anita Shukla
Ankur Singh
Sarah Stabenfeldt
Yubing Sun
Kaiming Ye

Thank you to our Reviewers for their Time and Effort

Tissue Engineering

Rosalyn Abbott
Ashutosh Agarwal
B. Rita Alevriadou
Daniel Alge
Carolyn Bayer
Leon Bellan
Evangelia Bellas
Corey Bishop
Ashley Brown
Tim Bruns
Olivia Burnsed
Yupeng Chen
Rachel Childers
Lesley Chow
Jeannine Coburn
Olivia Coiado
Rhima Coleman
Alonzo Cook
Renee Cottle
Kareen Coulombe
Sudip Dahal
Guohao Dai
Eric Darling
Warren David
Tara Deans
Maribella Domenech
Henry Donahue
Tim Downing
Adam Feinberg
Matthew Fisher
Bingmei Fu
Daniel Gallego-Perez
Gargi Ghosh
Ryan Gilbert
Joshua Grolman
Teja Guda
Xiaoming He
Ngan Huang
Nathaniel Huebsch
Jeffrey Jacot
Sabrina Jedlicka
Jana Kainerstorfer
Salman Khetani
Hyun Jung Kim
Jungkyu Kim
Yonghyun (John) Kim
YongTae Kim
Christine King
Grant Kruger
Kent Leach
Yan Li
Jun Liao
Wendy Liu
Maureen Lynch
Michael Mak
Angelo Mao
Megan McCain
Walter Murfee
Grace O'Connell
Brenda Ogle
Edward Phelps
Jennifer Puetzer
Marjan Rafat
Robert Sah
Blanka Sharma
Jason Shearn
Yunfei Shi
Jae-Won Shin
Ankur Singh
Sarah Stabenfeldt
Jan Stegemann
Kelly Stevens
Gregory Szeto
Alice Tomei
Mark Van Dyke
Omid Veiseh
Leo Wan
Kaiming Ye
Young-sup Yoon

Translational Biomedical Engineering

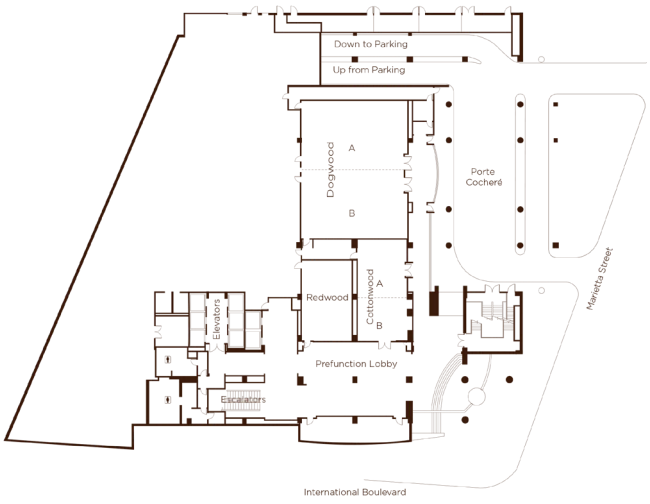
Kagya Amoako
Tamara Baynham
Muyinatu Bell
Olivia Burnsed
Yupeng Chen
Rachel Childers
Eun Ji Chung
Taylor Cohen
Olivia Coiado
Alonzo Cook
Renee Cottle
Kareen Coulombe
Sudip Dahal
Roche de Guzman
Nzola De Magalhaes
Tim Downing
Erik Dreaden
Colin Drummond
Steve Fening
Bingmei Fu
Daniel Gallego-Perez
Sheila Grant
Joshua Grolman
Teja Guda
R. Lyle Hood
Huang Chiao Huang
Soojung Hur
Kamran Iqbal
Jeffrey Jacot
Abhishek Jain
Chris Jewell
Alexey Kamenskiy
Schilke Kate
Keigo Kawaji
Jinho Kim
Christine King
Grant Kruger
Ethan Kung
Gabe Kwong
Kaveh Laksari
Hyowon Hugh Lee
Jun Liao
Solorio Luis
Xiaolong Luo
Srivalleesha Mallidi
Angelo Mao
Stephanie McCalla
J. Lucas McKay
Prahlad Menon
Hui-sung Moon
Francesco Pasqualini
Ryan Pearson
Gangjian Qin
Zhen Qiu
Elaheh Rahbar
Suhrud Rajguru
Robert Rennaker II
Shuvo Roy
Jai Rudra
Nima Saeidi
Robert Sah
Vahid Serpooshan
Blanka Sharma
Hisham Sherif
Yan-Ting Shiu
Barbara Smith
Tong Sun
Kenji Sunagawa
Gregory Szeto
Lucas Timmins
Jillian Urban
Mark Van Dyke
Omid Veiseh
Rana Zakerzadeh
Chao Zhou

Undergraduate Research and Design

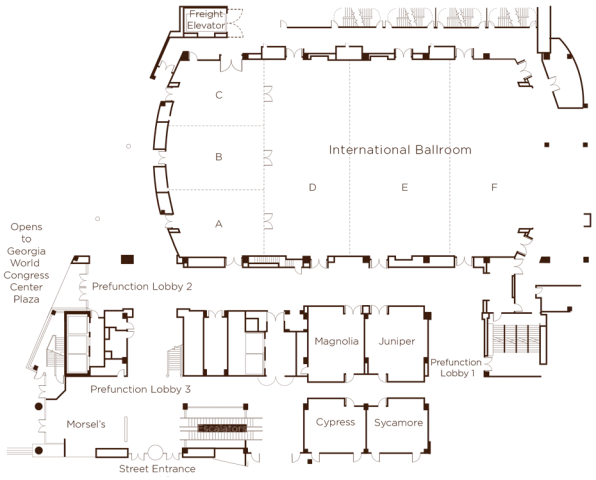
Rosalyn Abbott
Vinay Abhyankar
Kagya Amoako
Deirdre Anderson
Casey Ankeny
Reza Avaz
Janet Barzilla
Evangelia Bellas
Vimala Bharadwaj
Ashley Brown
Olivia Burnsed
Patrick Cahan
Daniel Cavanagh
Rachel Childers
Jennifer Choi
Taylor Cohen
Renee Cottle
Kareen Coulombe
Sudip Dahal
Zachary Dooley
Emma Dosmar
LeAnn Dourte Segan
Colin Drummond
Courtney Dumont
Evon Ereifej
Baowei Fei
Alicia Fernandez-Fernandez
Ann Foley
Ben Freedman
Joan Greve
Joshua Grolman
R. Lyle Hood
Aileen Huang-Saad
Sinjae Hyun
Jeffrey Jacot
Bin Jiang
Curtis Johnson
Jangwook Jung
Jana Kainerstorfer
Yonghyun (John) Kim
Christine King
Jon Klingensmith
Grant Kruger
Kanchan Kulkarni
Sandeep Kumar
Anja Kunze
Jungwoo Lee
Jun Liao
David Long
Yuan-Chiao Lu
Jason Luck
Maureen Lynch
Angelo Mao
Robert McKee
A.J. Mellott
Jyothi Menon
Linsey Moyer
Stanley Ng
David Oneill
Kevin Otto
Madeleine Oudin
Jennifer Patterson
Robert Peattie
Robert Pouliot
Guillem Pratx
Gangjian Qin
Zhen Qiu
Marjan Rafat
Sahar Rahmani
Christopher Raub
Renee Rogge
Mario Romero Ortega
Sarah Rooney
Bethany Rowson
Shuvo Roy
Nima Saeidi
Robert Sah
Nathan Schiele
Scott Sell
Vahid Serpooshan
Hisham Sherif
Jill Steinbach-Rankins
Joel Stitzel
Joe Towles
Jillian Urban
Sebastien Uzel
Michael VanAuker
Noe Vargas
Chuanlong Wang
Hongwu Wang
Catherine Whittington
Sangpil Yoon

Omni Atlanta Hotel at CNN Center | 100 CNN Center Atlanta, GA 30303

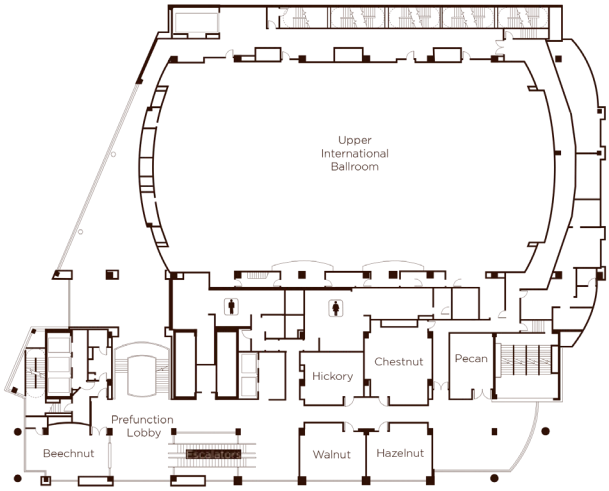
North Tower M1 Street Level



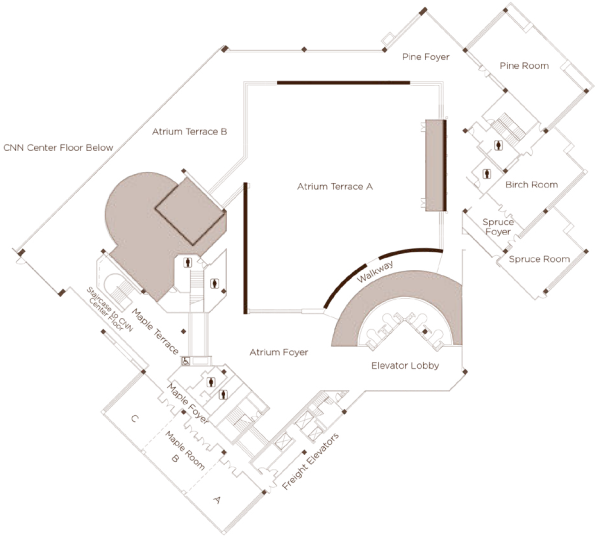
North Tower M2 International Ballroom



North Tower M3 Meeting Level

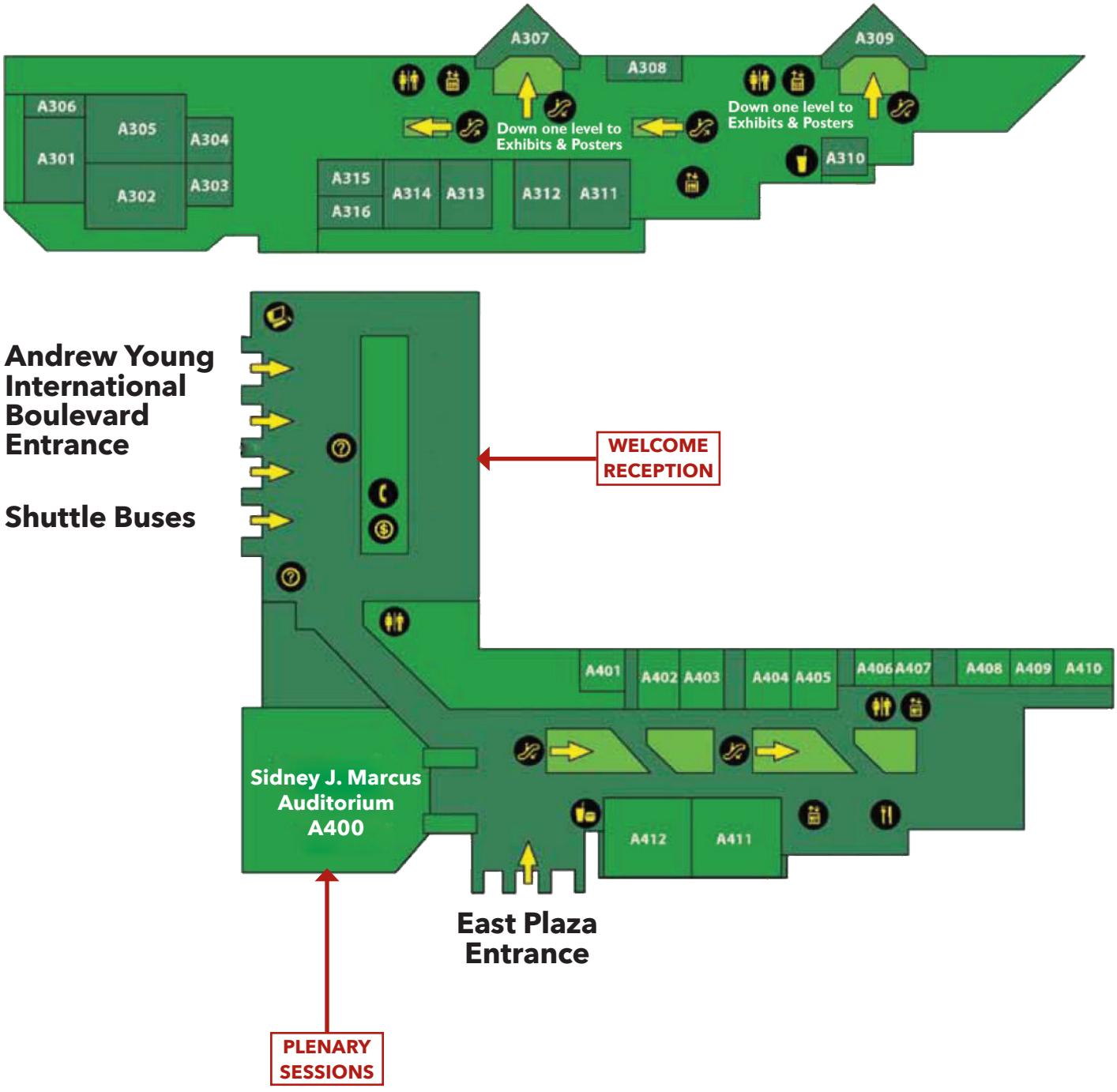


South Tower Atrium Terrace



Georgia World Congress Center
285 Andrew Young International Blvd. NW | Atlanta, GA 30313-1591

Level 3
Down One Level to Exhibit Hall A2
Registration, Exhibits and Posters



Download the BMES 2018 Annual Meeting Mobile App!

Navigate the event *Like A Pro* with the BMES 2018 mobile app, powered by Core-apps

With the BMES 2018 mobile app, you can:

- ***Stay organized with up-to-the-minute Exhibitor, Speaker, and Session information***
- ***Sync the app across all of your devices***
- ***Receive important real-time communications from BMES***
- ***Build a personalized schedule and bookmark exhibitors***
- ***Take notes and download event handouts and presentations***
- ***Rate the sessions you attend and comment on them, too***
- ***Locate sessions and exhibitors on the Georgia World Congress Center maps***
- ***Find attendees and connect with your colleagues through Friends***
- ***Stay in-the-know and join in on social media with #BMES2018***
- ***Share your event photos and experiences with the Photo Gallery***
- ***And much, much more!***

DOWNLOADING THE APP IS EASY!

SCAN: *Use your devices QR code scanner to quickly find the **BMES 2018** app.*

SEARCH: *The App Store or Google Play for **"BMES"***

FOR ALL OTHER DEVICE TYPES: *(including BlackBerry, Windows, and other web browser-enabled devices): point your mobile browser to:*
www.core-apps.com/dl/bmes2018
to be directed to the proper download version for your device.

Once you have downloaded and opened the app choose **BMES 2018** *and tap Download.*

Platform Compatibility: Android v4x+ and iOS v7x+
Should you have any questions, please contact: **support@core-apps.com**

GET IT ON Google Play

Available on the App Store

Program At-A-Glance | Thursday | October 18, 2018

TRACK	8:00 am–9:30 am	1:30 pm–3:00 pm	3:45 pm–5:15 pm
BIOINFORMATICS, COMPUTATIONAL AND SYSTEMS BIOLOGY	**Analysis of Cell Signaling** *Room A407*	**Single-cell Measurements and Models** *Room A407*	**Systems Approaches to Therapy Therapeutics, and Precision Medicine** *Room A407*
BIOMATERIALS *Track sponsored by* ACS Biomaterials Science & Engineering	**Hydrogels I** *Room A311* **3D Printing I** *Room A312*	**Hydrogels II** *Room A311* **3D Printing II** *Room A312*	**New Hydrogel Methods** *Room A311* **Biomaterials in Regenerative Medicine** *Room A312* **Biomechanics of Biomaterials** *Room A313*
BIOMECHANICS	**Human Performance and Sports Biomechanics I** *Room A313* **Cancer Mechanobiology I** *Room A314*	**Human Performance and Sports Biomechanics II** *Room A313* **Cancer Mechanobiology II** *Room A314*	**Biomechanics of Biomaterials** *Room A313* **Cardiovascular Biomechanics** *Room A314* **Matrix Effects in Mechanobiology I** *Room A315*
BIOMEDICAL ENGINEERING EDUCATION		**Innovation in Design** *Sidney Marcus Auditorium*	**Novel Pedagogy** *Room A409*
BIOMEDICAL IMAGING & INSTRUMENTATION	**Ultrasound Imaging** *Room A315* **Novel Optical Techniques and Devices** *Room A316*	**Photoacoustic Imaging** *Room A315* **Cancer Imaging** *Room A316*	**Cardiovascular/Flow Imaging** *Room A316*
CANCER TECHNOLOGIES	**Microfluidic and Microscale Cancer Models** *Room A410* **Cancer Mechanobiology I** *Room A314*	**Tumor Metastasis** *Room A410* **Cancer Mechanobiology II** *Room A314* **Cancer Imaging** *Room A316* **Cancer Cell Motility and Migration** *Room 404*	**Cancer Immunoengineering** *Room A410* **Drug Delivery for Immunomodulation and Immunotherapy** *Room A406*
CARDIOVASCULAR ENGINEERING	**Cardiovascular Tissue Engineering** *Room A302* **Angiogenesis and Engineered Vascularization** *Room A401*	**Computational Modeling in the Cardiovascular System** *Room A401*	**Cardiovascular Biomechanics** *Room A314* **Cardiovascular/Flow Imaging** *Room A316* **Thrombosis and Hemostasis** *Room A401*
CELLULAR & MOLECULAR BIOENGINEERING	**Extracellular Matrix and Biomaterials** *Room A403* **Cell Migration** *Room A404* **Analysis of Cell Signaling** *Room A407*	**Drugs and Growth Factors** *Room A403* **Cancer Cell Motility and Migration** *Room A404* **Single-cell Measurements and Models** *Room A407*	**Probes and Signaling** *Room A403* **ImmunoEngineering** *Room A404* **Matrix Effects in Mechanobiology I** *Room A315*
DEVICE TECHNOLOGIES & BIOMEDICAL ROBOTICS	**Interventional Devices and Robotics** *Room A305*	**Implantable Devices I** *Room A305*	**Implantable Devices II** *Room A305*
DRUG DELIVERY & INTELLIGENT SYSTEMS	**Delivery Systems for Proteins and Vaccines** *Room A406* **Advances in Respiratory Drug Delivery & Tissue Engineering** *Room A409*	**Topics in Drug Delivery** *Room A406* **Drugs and Growth Factors** *Room A403*	**Drug Delivery for Immunomodulation and Immunotherapy** *Room A406*
NANO AND MICRO TECHNOLOGIES	**Nanotechnologies for Nucleic Acid Detection and Exosome Analysis** *Room A405*	**Tissues-on-Chip for Biomedicine** *Room A405*	**Micro/Nano Fluidic Engineering and Lab-on-Chip Systems** *Room A405*

Program At-A-Glance | Thursday | October 18, 2018

TRACK	8:00 am–9:30 am	1:30 pm–3:00 pm	3:45 pm–5:15 pm
NEURAL ENGINEERING	**Neural Device Interfaces** *Room A303*	**Neural Disease: Model Systems and Therapeutics** *Room A303*	**Neural, Vascular and Immuno Tissue Engineering** *Room A302* **Repair and Regeneration of Brain and Spinal Cord** *Room A303*
ORTHOPEDIC AND REHABILITATION ENGINEERING		**Musculoskeletal Tissue Engineering I** *Room A304*	**Musculoskeletal Tissue Engineering II** *Room A304*
RESPIRATORY BIOENGINEERING	**Advances in Respiratory Drug Delivery & Tissue Engineering** *Room A409*	**Respiratory Modeling & Mechanobiology** *Room A409*	
STEM CELL ENGINEERING	**Stem Cells in Tissue Engineering** *Room A408*	**Advanced Biomanufacturing and Translation of Stem Cell Therapies** *Room A408*	
TISSUE ENGINEERING *Track sponsored by* University of CINCINNATI	**Cardiovascular Tissue Engineering** *Room A302* **Stem Cells in Tissue Engineering** *Room A408*	**Tissue Interfaces & Patterning** *Room A302* **Musculoskeletal Tissue Engineering I** *Room A304*	**Neural, Vascular and Immuno Tissue Engineering** *Room A302* **Musculoskeletal Tissue Engineering II** *Room A304*
TRANSLATIONAL BIOMEDICAL ENGINEERING	**Interventional Devices and Robotics** *Room A305* **Tissue Biofabrication and Cell Therapies** *Room A304*		**Preclinical Models** *Room A408*
INDUSTRY	**8:00 am–10:00 am** **Tech Transfer Innovation Challenge** *Room A402*	**1:15 pm–3:15 pm** **Entrepreneur Workshop** *Room A402*	
OTHER	**The Future of Bioelectronics: Materials, Processes and Applications** *Room A301* **State-of-the-Art Immuno-Engineering and Future Opportunities** *Room A411* **Single Cell Analysis and Tumor Heterogeneity** *Room A301* **50th Anniversary Jeopardy** *Georgia State Room*	**NIH Funding Panel Session** *Room A301* **Soft Material-Enabled Electronics for Medicine, Healthcare, and Human-Machine Interfaces** *Room A310* **2:30pm–5:00pm** **6th US-Korea Joint BMES Workshop on Biomedical Engineering** *Room A411*	**DEBUT Winner Presentations and Award Ceremony** *Room A301* **Novel Photoacoustic Imaging: Systems, Computation, and Agents** *Room A310* **2:30pm–5:00pm** **6th US-Korea Joint BMES Workshop on Biomedical Engineering** *Room A411*
STUDENT AND EARLY CAREER	**9:00 am–10:00 am** **Marketing Yourself: Tips for a Successful Job Search** *Room A412A*	**1:30 pm–2:45 pm** **BME Careers in Industry I** *Room A412A* **2:30 pm–4:00 pm** **Rapid Resume Review–Members Only** *Exhibit Hall Career Zone*	**3:00 pm–4:00 pm** **BME Careers in Academia** *Room A412A* **4:15 pm–5:15 pm** **BME Careers in Industry II** *Room A412A*

Program At-A-Glance | Friday | October 19, 2018

TRACK	8:00 am–9:30 am	1:15 pm–2:45 pm	3:30 pm–5:00 pm
BIOINFORMATICS, COMPUTATIONAL AND	**Omics Data: Methods, Modeling and Analysis** *Room A407*	**Imaging Data Science, Processing, Modeling and Informatics** *Room A316* **Synthetic Biology, Cell Systems Engineering, and Related Technologies** *Room A407*	
BIOMATERIALS *Track sponsored by* ACS Biomaterials Science & Engineering	**Biomaterials for Drug Delivery I** *Sidney Marcus Auditorium* **Natural Biomaterial** *Room A312* **Engineering the Stem Cell Microenvironment** *Room A408*	**Biomaterials for Drug Delivery I** *Sidney Marcus Auditorium* **Scaffolds I** *Room A312* **Biomaterials for Translational Applications** *Room A313*	**Characterizing and Modeling the Microenvironment** *Room A311* **Scaffolds II** *Room A312* **Chips and Devices** *Room A313*
BIOMECHANICS	**Biomechanics of Rehabilitation** *Room A313* **Biomechanics in Cell and Tissue Engineering** *Room A314* **Matrix Effects in Mechanobiology II** *Room A315*	**Cellular and Molecular Biomechanics: Mechanobiology I** *Room A314* **Mechanobiology of Cell Adhesion** *Room A315*	**Cellular and Molecular Biomechanics: Mechanobiology II** *Room A314* **Cancer Mechanobiology** *Room A410*
BIOMEDICAL ENGINEERING EDUCATION	**Program Development & Assessment** *Room A409*		
BIOMEDICAL IMAGING AND INSTRUMENTATION	**Imaging Strategies and Molecular Profiling** *Room A410* **Optics and Spectroscopy in Blood and Cardiovascular Applications** *Room A316*	**Imaging Data Science, Processing, Modeling and Informatics** *Room A316* **Imaging in Cardiovascular Systems** *Room A401*	**Neuroimaging, Neuromodulation and Neurosurgery** *Room A316*
CANCER TECHNOLOGIES	**Imaging Strategies and Molecular Profiling** *Room A410*	**Precision Medicine in Cancer** *Room A410* **Photoresponsive Nanomedicines and Immunotherapies for Cancer** *Room A405*	**Cancer Mechanobiology** *Room A410*
CARDIOVASCULAR ENGINEERING	**Cardiovascular Models and Remodeling** *Room A401* **Heart Valve Structure and Replacement** *Room A403* **Optics and Spectroscopy in Blood and Cardiovascular Applications** *Room A316*	**Imaging in Cardiovascular Systems** *Room A401* **Vascular Tissue Engineering** *Room A403*	**Vascular Devices and Hemodynamics** *Room A401* **Myocardial Tissue Engineering** *Room A403*
CELLULAR & MOLECULAR BIOENGINEERING	**Matrix Effects in Mechanobiology II** *Room A315* **Engineering Multi-cellular Systems** *Room A302* **Young Innovators of Cellular and Molecular Bioengineering: Part I** *Room A404*	**Cellular and Molecular Biomechanics: Mechanobiology I** *Room A314* **Young Innovators of Cellular and Molecular Bioengineering: Part II** *Room A404*	**Cellular and Molecular Biomechanics: Mechanobiology II** *Room A314* **Molecular and Cellular ImmunoEngineering** *Room A404*
DEVICE TECHNOLOGIES AND BIOMEDICAL ROBOTICS	**Prosthetics and Exoskeletons** *Room A305*	**Assistive Technologies** *Room A305*	**Diagnostic Technology for Low-Resource Settings** *Room A305* **Vascular Devices and Hemodynamics** *Room A401*
DRUG DELIVERY & INTELLIGENT SYSTEMS	**Biomaterials for Drug Delivery I** *Sidney Marcus Auditorium*	**Biomaterials for Drug Delivery II** *Sidney Marcus Auditorium* **Nanotechnologies for Drug and Nucleic Acid Delivery and Immunotherapy** *Room A406*	**Drug Delivery for Implants and Responsive Drug Delivery Systems** *Room A407*

Program At-A-Glance | Friday | October 19, 2018

TRACK	8:00 am–9:30 am	1:15 pm–2:45 pm	3:30 pm–5:00 pm
NANO AND MICRO TECHNOLOGIES	**Nanotechnologies for Medical Applications** *Room A405* **Molecular Sensors and Nanodevices for Diagnostics** *Room A406*	**Photoresponsive Nanomedicines and Immunotherapies for Cancer** *Room A405* **Nanotechnologies for Drug and Nucleic Acid Delivery and Immunotherapy** *Room A406*	**Structure Function Relationships in Nanomedicine** *Room A405* **Micro and Nano-Technologies for Cellular Analysis and Neuroscience** *Room A406* **Chips and Devices** *Room A313*
NEURAL ENGINEERING	**Neuromodulation** *Room A303*	**Neural Cell Model Systems** *Room A303*	**Neural Decoding and Control** *Room A303* **Neuroimaging, Neuromodulation and Neurosurgery** *Room A316* **Micro and Nano-Technologies for Cellular Analysis and Neuroscience** *Room A406* **Neural Stem/Progenitor Cell Engineering** *Room A408*
ORTHOPEDIC AND REHABILITATION ENGINEERING	**Prosthetics and Exoskeletons** *Room A305*	**Musculoskeletal Tissue Engineering III** *Room A302* **Muscle and Tendon** *Room A304*	**Spine and Intervertebral Disc** *Room A304*
STEM CELL ENGINEERING	**Cartilage and Osteoarthritis** *Room A304* **Engineering the Stem Cell Microenvironment** *Room A408*	**Controlling Stem Cell Differentiation Using Novel Technologies** *Room A408*	**Development Biology and Stem Cells in Tissue Engineering** *Room A315* **Neural Stem/Progenitor Cell Engineering** *Room A408*
TISSUE ENGINEERING *Track sponsored by* University of CINCINNATI	**Engineering Multi-cellular Systems** *Room A302* **Biomechanics in Cell and Tissue Engineering** *Room A314*	**Musculoskeletal Tissue Engineering III** *Room A302* **Vascular Tissue Engineering** *Room A403*	**Advanced Biomanufacturing in Tissue Engineering** *Room A302* **Myocardial Tissue Engineering** *Room A403* **Development Biology and Stem Cells in Tissue Engineering** *Room A315*
INDUSTRY	**8:00 am–9:00 am** **Product Development Implications based on FDA Medical Device Classification** *Room A402* **9:00 am–10:15 am** **Connecting Engineering Skillsets with Professional Achievement and Advancement** *Room A402*	**1:00 pm–2:30 pm** **Clinical Innovators Spotlight** *Room A402*	
OTHER	**Systems Thinking in the Education of Biomedical Engineering Students** *Room A301* **Advanced Biomanufacturing Session I: Advanced Tissue Biofabrication** *Room A311* **AAA-BMES Symposium: Engineering and Imaging the Stem Cell Niche for Guided Regeneration** *Room A411*	**BMES-NSF Special Session on CAREER and UNSOLICITED Awards** *Room A301* **Advanced Biomanufacturing Session II: Advanced Cell Biomanufacturing** *Room A311* **Engineering Solutions to Health Care Disparities** *Room A409*	**Physical Science Oncology Networking Physical Science Oncology Networking** *Room A411* **Athanasiou Annals of Biomedical Engineering Student Award Session** *Room A409* **BMES Graduate Medical Innovation Program Workshop Part III: Defining Student Archetype(s)** *Room A310*
STUDENT AND EARLY CAREER	**8:00 am–10:30 am** **BMES Student Chapter: Chapter Best Practices** *Room A310* **9:00 am–10:00 am** **The Path to Graduate School** *Room A412A*	**1:30 pm–2:30 pm** **BME Entrepreneurial Careers** *Room A412A* **1:45 pm–3:15 pm** **BMES Student Chapter: BMES Undergraduate Student Design Competition** *Room A310* **2:30 pm–4:00 pm** **Rapid Resume Review–Members Only** *Exhibit Hall Career Zone*	**3:30 pm–5:00 pm** **Networking Effectively Online and in Person** *Room A412A*

Program At-A-Glance | Saturday | October 20, 2018

TRACK	8:00 am–9:30 am	1:30 pm–3:00 pm	3:15 pm–4:45 pm
BIOINFORMATICS, COMPUTATIONAL AND SYSTEMS BIOLOGY		**Computational Modeling of Cancer** *Room A304*	**Systems Biology of Infectious Disease** *Room A304*
BIOMATERIALS *Track sponsored by* ACS Biomaterials Science & Engineering	**Biomaterials for Immunoengineering I** *Room A312*	**Biomaterials for Immunoengineering II** *Room A312*	**Drug Delivering Biomaterials** *Room A407*
BIOMECHANICS	**Brain Injury Biomechanics** *Sidney Marcus Auditorium* **Biofluid Mechanics** *Room A314* **Biomechanics in Cell and Tissue Engineering** *Room A302* **Cardiovascular Mechanobiology** *Room A401* **Cellular and Molecular Biomechanics: Mechanobiology** *Room A404*	**Injury Biomechanics I** *Room A313* **Computational and Multiscale Modeling in Biomechanics** *Room A314* **Traumatic Brain Injury Biomechanics and Neuromuscular Biomechanics** *Room A303*	**Injury Biomechanics II** *Room A313*
BIOMEDICAL ENGINEERING EDUCATION	**Evidence-based Pedagogy** *Room A409*		
BIOMEDICAL IMAGING AND INSTRUMENTATION	**Fluorescence** *Room A315* **Imaging in Neuroscience** *Room A316*	**MRI I** *Room A315* **Theranostic and Imaging Contrast Agents** *Room A316* **Imaging Technologies and Image-Guided Therapies** *Room A406*	**MRI II** *Room A315* **Detection, Therapy and Monitoring** *Room A316* **Advances in Sensing and Imaging Technology** *Room A305*
CANCER TECHNOLOGIES	**Physical and Biochemical Pathways in Cancer** *Room A410*	**Cancer Drug Delivery I** *Room A311* **Drug Delivery and Immunodulation** *Room A410* **Computational Modeling of Cancer** *Room A304*	**Cancer Drug Delivery II** *Room A311* **Tumor Microenvironment** *Room A410*
CARDIOVASCULAR ENGINEERING	**Cardiovascular Mechanobiology** *Room A401* **Valvular and Vascular Computational Modeling** *Room A403*	**Cardiovascular Stem Cells and Regeneration** *Room A401*	**Cardiovascular Electrophysiology** *Room A401*
CELLULAR & MOLECULAR BIOENGINEERING	**Cellular and Molecular Biomechanics: Mechanobiology** *Room A404*	**Engineering Multi-Cellular Systems** *Room A404*	**Micro/Nano Tools in Molecular Biology** *Room A404*
DEVICE TECHNOLOGIES AND BIOMEDICAL ROBOTICS	**Point of Care: Enabling Technology and Applications** *Room A305* **Interventional Devices and Micro/Nano Tools** *Room A406*	**Wearable and Implantable Sensor Technology** *Room A305* **Device Applications and Translation** *Room A412*	**Advances in Sensing and Imaging Technology** *Room A305*
DRUG DELIVERY & INTELLIGENT SYSTEMS	**Nanoparticles for Drug Delivery and Genetic Engineering** *Room A407*	**Cancer Drug Delivery I** *Room A311* **Drug Delivery and Immunodulation** *Room A410* **Targeted or Responsive Delivery Systems** *Room A407*	**Cancer Drug Delivery II** *Room A311* **Drug Delivering Biomaterials** *Room A407*

Program At-A-Glance | Saturday | October 20, 2018

TRACK	8:00 am–9:30 am	1:30 pm–3:00 pm	3:15 pm–4:45 pm
NANO AND MICRO TECHNOLOGIES	**Organ-on-Chip for Regenerative Medicine I** *Room A405*	**Organ-on-Chip for Regenerative Medicine II** *Room A302* **Micro and Nano-Fluidic Engineering and Bioinspired Nano Devices** *Room A403* **Micro/Nano Tools for Cell Sorting, Disease Detection and Diagnosis** *Room A405*	**Micro/Nano Tools in Molecular Biology** *Room A404* **Nanotechnologies for Global Health and Infectious Diseases** *Room A405* **Micro/Nano Tools in Neural Engineering** *Room A303*
NEURAL ENGINEERING	**Imaging in Neuroscience** *Room A316* **Stem/Progenitor Cells for Neural Applications** *Room A303*	**Traumatic Brain Injury Biomechanics and Neuromuscular Biomechanics** *Room A303*	**Micro/Nano Tools in Neural Engineering** *Room A303*
ORTHOPEDIC AND REHABILITATION ENGINEERING	**Musculoskeletal Tissue Engineering II** *Room A313*		
STEM CELL ENGINEERING	**Stem/Progenitor Cells for Neural Applications** *Room A303*	**Cardiovascular Stem Cells and Regeneration** *Room A401*	**Stem Cells in Tissue Engineering II** *Room A312*
TISSUE ENGINEERING *Track sponsored by* University of CINCINNATI	**Musculoskeletal Tissue Engineering II** *Room A313* **Biomechanics in Cell and Tissue Engineering** *Room A302* **Organ-on-Chip for Regenerative Medicine I** *Room A405*	**Engineering Multi-Cellular Systems** *Room A404* **Organ-on-Chip for Regenerative Medicine I** *Room A302*	**Immunoengineering and Immunomodulation in Tissue Engineering** *Room A302* **Printing and Patterning in Tissues** *Room A314* **Stem Cells in Tissue Engineering II** *Room A312*
TRANSLATIONAL BIOMEDICAL ENGINEERING	**Interventional Devices and Micro/Nano Tools** *Room A406*	**Imaging Technologies and Image-Guided Therapies** *Room A406* **Device Applications and Translation** *Room A412*	
UNDERGRADUATE RESEARCH & DESIGN	**Undergraduate Research & Design I** *Room A408*	**Undergraduate Research & Design II** *Room A408*	**Undergraduate Research & Design III** *Room A408*
OTHER	**Application of Two Dimensional Materials in Healthcare** *Room A310* **Scientific Advancement in the Biomechanics of Prosthetic Heart Valves** *Room A311* **BMES-NSF Special Session on Graduate Research Fellowships Program** *Room A301*		

Schedule At-A-Glance

WEDNESDAY | OCTOBER 17, 2018		
12:00 noon – 7:00 pm	Registration	GWCC, Exhibit Hall A1–3
8:30 am – 4:30 pm	BMES Board of Directors Meeting	GWCC, Executive Board Room
2:00 pm – 5:00 pm	Georgia Tech Tours *(preregistration required)*	Leave from GWCC
3:00 pm – 5:00 pm	**SPECIAL SESSION:** Black Women in Biomedical Engineering: Lessons for Healthy and Successful Career Advancement *(preregistration required)*	Omni, Dogwood AB Room
3:30 pm – 5:30 pm	Meet the Faculty Candidates	GWCC, Exhibit Hall
3:30 pm – 5:00 pm	**SPECIAL SESSION:** BMES Student Chapter Development Event	GWCC, A411
4:00 pm – 5:00 pm	Tips for First-time Student and Early Career Attendees	GWCC, A412A
5:30 pm – 7:30 pm	Welcome Reception	GWCC, Levels 3 & 4
6:00 pm – 7:00 pm	VIP Reception *(invitation only)*	Omni, Pecan Foyer
7:00 pm – 10:30 pm	Council of Chairs Dinner & Meeting *(invitation only)*	Omni, Intl. Ballroom F
7:30 pm – 8:30 pm	Industry Committee Planning Meeting *(invitation only)*	Omni, Magnolia Room
8:00 pm – 9:00 pm	LGBT & Friends Dessert Social *(ticket purchase required)*	Omni, Intl. Ballroom ABC
THURSDAY | OCTOBER 18, 2018		
7:00 am – 6:00 pm	Registration	GWCC, Exhibit Hall
7:00 am – 8:00 am	**INDUSTRY SESSION:** Council of Industry Chapter Presidents *(by invitation only)*	GWCC, A308A
7:00 am – 8:00 am	BMES Diversity Committee Meeting	GWCC, A308B
8:00 am – 9:30 am	BMES National Meetings Committee Meeting	GWCC, A309
8:00 am – 9:30 am	**PLATFORM SESSIONS: Thurs-1**	*19 concurrent sessions*
8:00 am – 9:30 am	**SPECIAL SESSION:** 50th Anniversary Jeopardy	GWCC, Georgia State Room
8:00 am – 9:30 am	**SPECIAL SESSION:** The Future of Bioelectronics: Materials, Processes and Applications	GWCC, A301
8:00 am – 9:30 am	**SPECIAL SESSION:** State-of-the-Art ImmunoEngineering and Future Opportunities	GWCC, A411
8:00 am – 9:30 am	**SPECIAL SESSION:** Single Cell Analysis and Tumor Heterogeneity	GWCC, A310
8:00 am – 10:00 am	**INDUSTRY SESSION:** Tech Transfer Innovation Challenge	GWCC, A402
8:30 am – 9:30 am	BMES Student Affairs Committee Meeting	GWCC, A306
9:00 am – 10:00 am	Marketing Yourself: Tips for a Successful Job Search	GWCC, A412A
9:30 am – 5:00 pm	Exhibit Hall Open	GWCC, Exhibit Hall A1-3
9:30 am – 5:00 pm	POSTER SESSION	GWCC, Exhibit Hall
9:30 am – 10:15 am	POSTER VIEWING WITH AUTHORS & Refreshment Break	GWCC, Exhibit Hall
9:30 am – 10:30 am	BMES Ethics Subcommittee Meeting	GWCC, A308A
10:15 am – 11:30 am	**PLENARY SESSION: State of the Society by BMES President, Lori Setton, PhD & Pritzker Distinguished Lecture, Rashid Bashir, PhD** *Department of Bioengineering, University of Illinois*	GWCC, Sidney Marcus Auditorium
11:45 am – 1:15 pm	**CELEBRATION OF MINORITIES IN BME LUNCHEON** *Speaker:* **Paula Hammond, PhD,** *Koch Institute for Integrative Cancer Research Massachusetts Institute of Technology (ticket purchase required)*	GWCC, A411
11:45 am – 1:15 pm	Lunch on Own	
1:00 pm – 3:00 pm	**AEMB:** Mentoring for INnovative Design Solutions (MINDS) Workshop *(by invitation)—affiliate event*	GWCC, Georgia State Room
1:15 pm – 3:15 pm	**INDUSTRY SESSION:** Entrepreneur Workshop *(ticket purchase required)*	GWCC, A402A
1:30 pm – 3:00 pm	**PLATFORM SESSIONS: Thurs-2**	*20 concurrent sessions*
1:30 pm – 2:45 pm	BME Careers in Industry I	GWCC, A412A
1:30 pm – 3:00 pm	**SPECIAL SESSION:** NIH Funding Panel Session	GWCC, A301
1:30 pm – 3:00 pm	**SPECIAL SESSION:** Soft Material-Enabled Electronics for Medicine, Healthcare, and Human-Machine Interfaces	GWCC, A310

GWCC = Georgia World Congress Center • Omni = Omni Atlanta Hotel at CNN Center

PLENARY SESSION	PLATFORM SESSION	POSTERS	SPECIAL SESSIONS
STUDENT/EARLY CAREER	EXHIBITS	SPECIAL EVENTS	COMMITTEE MEETINGS

Schedule At-A-Glance

THURSDAY | OCTOBER 18, 2018 *(continued)*		
2:30 pm – 4:00 pm	Rapid Resume Review: Members Only	GWCC–Exhibit Hall Career Zone
2:30 pm – 5:00 pm	**SPECIAL SESSION:** 6th US-Korea Joint BMES Workshop on Biomedical Engineering	GWCC, A411
3:00 pm – 3:45 pm	POSTER VIEWING WITH AUTHORS & Refreshment Break	GWCC, Exhibit Hall
3:00 pm – 4:00 pm	BME Careers in Academia	GWCC, A412A
3:45 pm – 5:15 pm	**PLATFORM SESSIONS: Thurs-3**	19 concurrent sessions
3:45 pm – 5:15 pm	**SPECIAL SESSION:** Novel Photoacoustic Imaging: Systems, Computation, and Agents	GWCC, A310
3:45 pm – 5:15 pm	**SPECIAL SESSION:** NIBIB DEBUT Presentations and Awards Session	GWCC, A301
4:00 pm – 5:30 pm	**AEMB:** Annual Grand Meeting *(affiliate event)*	GWCC, Georgia State Room
4:15 pm – 5:15 pm	BME Careers in Industry II	GWCC, A412A
4:30 pm – 5:30 pm	Coulter College Steering Committee Meeting	GWCC, A308A
5:30 pm – 6:30 pm	**PLENARY SESSION:** **Diversity Award Lecture, Anjelica L. Gonzalez, PhD,** *School of Engineering and Applied Science, Yale University & BMES Fellows*	GWCC, Sidney Marcus Auditorium
8:00 pm – 10:00 pm	University Hosted Receptions	Omni
FRIDAY | OCTOBER 19, 2018		
7:00 am – 6:00 pm	Registration	GWCC, Exhibit Hall A1-3
7:00 am – 8:00 am	BMES Education Committee Meeting	GWCC, A308B
8:00 am – 9:00 am	**INDUSTRY SESSION:** Product Development based on FDA Medical Device Classification	GWCC, A402
8:00 am – 9:30 am	BMES 2019 Annual Meeting Planning Committee Meeting	GWCC, A309
8:00 am – 9:00 am	BMES International Committee Meeting	GWCC, A308A
8:00 am – 9:30 am	**PLATFORM SESSIONS: Fri-1**	*19 concurrent sessions*
8:00 am – 9:30 am	**SPECIAL SESSION:** Systems Thinking in the Education of Biomedical Engineering Students	GWCC, A301
8:00 am – 9:30 am	**SPECIAL SESSION:** AAA-BMES Symposium: Engineering and Imaging the Stem Cell Niche for Guided Regeneration	GWCC, A411
8:00 am – 9:30 am	**SPECIAL SESSION:** Advanced Biomanufacturing Session I: Advanced Cell Manufacturing	GWCC, A311
8:00 am – 10:30 am	BMES Student Chapter: Chapter Best Practices	GWCC, A310
9:00 am – 10:00 am	The Path to Graduate School	GWCC, A412A
9:00 am – 10:15 am	**AEMB Annual Ethics Session:** Robot Caregivers and Health Care: Ethical Challenges for Engineers *(affiliate event)*	GWCC, Georgia State Room
9:00 am – 10:15 am	**INDUSTRY SESSION:** Connecting Engineering Skillsets with Professional Achievement and Advancement	GWCC, A402
9:30 am – 5:00 pm	Exhibit Hall Open	GWCC, Exhibit Hall A1-3
9:30 am – 5:00 pm	POSTER SESSION	GWCC, Exhibit Hall
9:30 am – 10:15 am	POSTER VIEWING WITH AUTHORS & Refreshment Break	GWCC, Exhibit Hall
10:15 am – 11:15 am	**PLENARY SESSION/Design & Research Awards/Journal Awards** **NIBIB Lecture: Lihong Wang, PhD,** *California Institute of Technology*	GWCC, Sidney Marcus Auditorium
11:15 am – 1:00 pm	Lunch on Own	
11:30 am – 1:00 pm	**WOMEN IN BME LUNCHEON** *(ticket purchase required)* *Speaker:* **Jennifer West, PhD,** *Duke University*	GWCC
1:00 pm – 2:30 pm	**INDUSTRY SESSION:** Clinical Innovators Spotlight	GWCC, A402
1:00 pm – 2:30 pm	**AEMB:** Intellectual Property Management, From Conception to Production and How to Protect It	GWCC, Georgia State Room
1:15 pm – 2:45 pm	**PLATFORM SESSIONS: Fri-2**	*18 concurrent sessions*
1:15 pm – 2:45 pm	**SPECIAL SESSION:** Advanced Biomanufacturing Session II: Advanced Tissue Biofabrication	GWCC, A311
1:15 pm – 2:45 pm	**SPECIAL SESSION:** Engineering Solutions to Health Care Disparities	GWCC, A409

GWCC = Georgia World Congress Center • Omni = Omni Atlanta Hotel at CNN Center

PLENARY SESSION	PLATFORM SESSION	POSTERS	SPECIAL SESSIONS
STUDENT/EARLY CAREER	EXHIBITS	SPECIAL EVENTS	COMMITTEE MEETINGS

Schedule At-A-Glance

FRIDAY | OCTOBER 19, 2018 *(continued)*		
1:30 pm – 2:30 pm	BME Entrepreneurial Careers	GWCC, A412A
1:30 pm – 4:30 pm	**SPECIAL SESSION:** BMES-NSF Session on CAREER and UNSOLICITED Awards *(preregistration required)*	Room A301
1:45 pm – 3:15 pm	BMES Student Chapter: BMES Undergraduate Student Design Competition	GWCC, A310
2:30 pm – 4:00 pm	Rapid Resume Review: Members Only	GWCC–Exhibit Hall Career Zone
2:45 pm – 3:30 pm	POSTER VIEWING WITH AUTHORS & Refreshment Break	GWCC, Exhibit Hall
3:00 pm – 4:00 pm	BMES Membership Committee Meeting	GWCC, A308A
3:30 pm – 4:30 pm	Design Competition Judges Meeting	GWCC, A308B
3:30 pm – 5:00 pm	Networking Effectively Online and in Person	GWCC, A412A
3:30 pm – 5:00 pm	**PLATFORM SESSIONS: Fri-3**	18 concurrent sessions
3:30 pm – 5:00 pm	**SPECIAL SESSION:** Athanasiou Annals of Biomedical Engineering Student Award Session	GWCC, A409
3:30 pm – 5:00 pm	**SPECIAL SESSION:** BMES Graduate Medical Innovation Program Workshop Part III: Defining Student Archetype(s)	GWCC, A310
3:30 pm – 5:00 pm	**SPECIAL SESSION:** Physical Science Oncology Networking	GWCC, A411
5:15 pm – 6:15 pm	**PLENARY SESSION/Chapter Awards** **Wallace H. Coulter Award for Healthcare Innovation:** **Josh Makower, MD,** *New Enterprise Associates, Inc*	GWCC, Sidney Marcus Auditorium
6:30 pm – 8:30 pm	University Hosted Receptions	Omni
6:30 pm – 8:30 pm	Industry Mixer *(ticket purchase required)*	STATS Brewpub
6:30 pm – 8:30 pm	Physical Science Oncology Networking Reception *(invitation only)*	Omni, Hickory Room
7:00 pm – 8:30 pm	Reception for Current ABET/BMES Program Evaluators *(invitation only)*	Omni, Chestnut Room
8:30 pm – 10:30 pm	BMES DESSERT BASH	GWCC, Murphy Ballroom
SATURDAY | OCTOBER 20, 2018		
7:00 am – 2:00 pm	Registration	GWCC, Exhibit Hall A1-3
8:00 am – 9:30 am	**PLATFORM SESSIONS: Sat-1**	*17 concurrent sessions*
8:00 am – 9:30 am	Undergraduate Research & Design Orals #1	GWCC, A408
8:00 am – 9:30 am	**SPECIAL SESSION:** BMES-NSF Session on Graduate Research Fellowships Program *(preregistration required)*	Room A301
8:00 am – 9:30 am	**SPECIAL SESSION:** Application of Two Dimensional Materials in Healthcare	GWCC, A310
8:00 am – 9:30 am	**SPECIAL SESSION:** Scientific Advancement in the Biomechanics of Prosthetic Heart Valves	GWCC, A311
8:00 am – 9:30 am	ABioM SIG Meeting	GWCC, A304
9:30 am – 1:30 pm	Exhibit Hall Open	GWCC, Exhibit Hall A1-3
9:30 am – 1:00 pm	POSTER SESSION	GWCC, Exhibit Hall
9:30 am – 10:30 am	POSTER VIEWING WITH AUTHORS & Refreshment Break	GWCC, Exhibit Hall
10:30 am – 11:45 am	**PLENARY SESSION: Rita Schaffer Young Investigator Lecture and BMES Mid-Career Award Lecture**	GWCC, Sidney Marcus Auditorium
11:45 am – 1:15 pm	Lunch on Own	
1:30 pm – 3:00 pm	**PLATFORM SESSIONS: Sat -2**	*18 concurrent sessions*
1:30 pm – 3:00 pm	Undergraduate Research & Design Orals #2	GWCC, A408
1:30 pm – 3:00 pm	**SPECIAL SESSION:** International Collaboration in Biomedical Engineering Education	GWCC, A310
3:15 pm – 4:45 pm	**PLATFORM SESSION: Sat-3**	*17 concurrent sessions*
3:15 pm – 4:45 pm	Undergraduate Research & Design Orals #3	GWCC, A408

GWCC = Georgia World Congress Center • Omni = Omni Atlanta Hotel at CNN Center

PLENARY SESSION	PLATFORM SESSION	POSTERS	SPECIAL SESSIONS
STUDENT/EARLY CAREER	EXHIBITS	SPECIAL EVENTS	COMMITTEE MEETINGS