

## Biomedical Engineering Seminar Schedule

**September 7, 2018**

**Speaker:** Lei Li, IUPUI Chemistry and Chemical Biology

**September 21, 2018**

**Speaker:** Michael Veronesi, IU School of Medicine  
Neuroradiology

**October 12, 2018**

**Speaker:** Rajesh Sardar, IUPUI Chemistry and Chemical Biology

**October 26, 2018**

**Speaker:** Sungsoo Na, IUPUI Biomedical Engineering

**November 9, 2018**

**Speaker:** Nicolas Berbari, IUPUI Biology

**November 16, 2018**

**Speaker:** Teri Belecky-Adams, IUPUI Biology

**November 30, 2018**

**Speaker:** Julie Ji, IUPUI Biomedical Engineering

## Faculty Research Areas

**Julie Ji, PhD**

- Vascular Mechanobiology

**John H. Schild, PhD**

- Autonomic Neural Control
- Visceral Afferent Function

**Dong Xie, PhD**

- Functional and Polymeric Biomaterials

**Hiroki Yokota, PhD**

- Breast Cancer and Bone Metastasis
- Mechanotransduction

**Ken Yoshida, PhD**

- Bioelectronics

**Joseph Wallace, PhD**

- Bone biomechanics
- Mechanobiology

**Chien-Chi Lin, PhD**

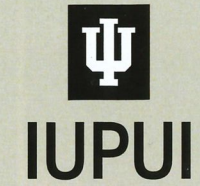
- Polymeric Biomaterials and Tissue Engineering
- Cancer Bioengineering

**Sungsoo Na, PhD**

- Cellular Signaling and Reprogramming



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### Master Faster

Last fall, the Biomedical Engineering department embarked on its first year offering a Bachelor of Science/ Master of Science 5-year Combined Degree Program. Like the name suggests, the combined degree program allows eligible students the opportunity to receive both their Bachelor and Master degree in record time. Along with a rigorous course load, the program works by having graduate credit hours, taken during the fourth year in the program, satisfy both Bachelor and Master degree requirements.

This program has brought about much excitement within the department and the student population. Dr. Ed Berbari, BME Chairman, explains, "The BS/MS 5-year Combined Degree Program will offer high performing BME students the opportunity to acquire added credentials to further their future endeavors." Dr. Sharon Miller, Associate Chair and Director of the Undergraduate Program,

further advocates, "The program will allow motivated students the opportunity to gain additional experiences and knowledge through project or thesis work. These program experiences benefit students as they seek to enter industry at a higher-level position following graduation or pursue higher education in Biomedical Engineering."

Dr. Berbari anticipates that the additional benefits of the program will increase enrollment in the department in future years. This spring, we are expecting to have a large number of eligible students to apply to the program. Dr. Miller looks forward to the continuous involvement. "With this program, the BME Department adds additional opportunity to train students at the master's degree level, allowing faculty continued classroom and laboratory engagement with these BME students. Still, the MS/BS BME students provide a connection between our undergraduate and graduate student populations, strengthening professional connections for all."

Pioneering his way through BS/MS combined degree program, Shozaf Zaidi (pictured below), shares his enthusiasm for the program. "I am so grateful to be able get both degrees in just 5 years. It will allow me to pursue my goals faster and with a Master's degree in the field I love!" Shozaf plans to attend medical school after earning his MS degree. He intends to use his technical skills and education in BME to improve healthcare outcomes as a physician innovator.



Shozaf Zaidi

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DEPARTMENT OF BIOMEDICAL ENGINEERING  
MESSAGE FROM THE  
**CHAIR**

**EDWARD J. BERBARI**  
CHANCELLOR'S PROFESSOR AND CHAIR OF THE DEPARTMENT BIOMEDICAL ENGINEERING

I am excited to share some of the activities and accomplishments of our students, faculty, and alumni in this issue. Our newsletter this year focuses on our new BS/ MS 5-year Combined Program and highlights some exceptional BME students and faculty.

In other department news, we were delighted to have promoted STEM to younger generations throughout the summer. The Biomedical Engineering labs had several high school interns learning technical skills and design processes alongside undergraduate and graduate students. Dr. Joseph Wallace and Dr. Julie Ji welcomed four young women into their labs for a week during

POWER Camp (Preparing Outstanding Women in Engineering Roles.)

We encourage and support our students to be involved in the Biomedical Engineering community. This August, we were proud to have four undergraduate students, Chance Davis, Celia Ochoa, Aakash Savita, and Taylor Whitaker received an invitation from the BMES Coulter College to attend a program focused on translation of biomedical innovations. The students demonstrated resourcefulness, team-work, and dedication as they learned how to combine clinical benefits alongside a viable commercial model.

Research awards were over \$1.8 million in the last fiscal year and were from many sources, notably, NIH, NSF, foundations, and industry. Dr. Joseph Wallace recently received an NIH grant for nearly \$2 million over five years to support research that will identify and improve bone mass and quality to treat degenerative bone conditions. Dr. Ken Yoshida continues to receive funds from Galvani Bioelectronics as they work on projects utilizing nerve stimulation to visceral organ stimulation. Also, Dr. Sharon Miller and Dr. Steven Higbee were awarded a curriculum enhancement grant to vertically integrate more engineering design into the Biomedical Engineering undergraduate curriculum.

## BME Award Recipients for 2018

### Student Scholarship and Award Recipients

#### BME Awards

**David Bustamante** Charles H. Turner Outstanding Achievement Award

**Jennifer Hatch** Bepko Continuing BME Student Scholarship

**Kathryn Peterson** BME Outstanding Service Award

**Kanokwan Jiffy Bishop** Exemplary Internship Award

**Blakely Heaton** Outstanding EDDP BME Student Award

**Elliott Beckner, Cayla Skaggs, Rachel Surrige**

Bepko Scholarship for Outstanding Academic Achievement (Sophomore)

**Ashley Kidwell** Bepko Scholarship for Outstanding Academic Achievement (Junior)

#### IUPUI Top 100

Kathryn Peterson

#### IUPUI Elite 50

Ananya Udari

#### Other Awards

Megan Waxman Fulbright Institute Scholarship

Lindsay Zehrung IFESS 2018 paper competition finalist

### Faculty Awards and Accomplishments

#### Awards

**Dr. Joseph Wallace** 2018 IUPUI Trustees' Teaching Award

#### Funding Recognition

**Dr. Joseph Wallace** \$2 million NIH grant

**Dr. Chien-Chi Lin** 2-year grant from Eli Lilly and Co.

#### Publications

**Dr. Sungsoo Na** published in the Journal of Biomedical Optics

**Dr. Chien-Chi Lin** published in the journals: Cancer Letters, Biomaterials, and Biomaterials Science (featured on front cover)

## BME Spotlight

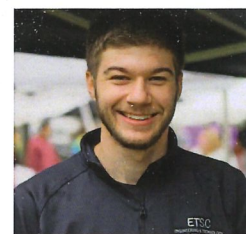
### UNDERGRADUATE STUDENT



**Kanokwan (Jiffy) Bishop**, a senior Bepko Scholar, recently accepted a post-graduation position with Ab-

bVie Inc. in a Clinical Trials Operations Development Program. Throughout her undergraduate studies, Jiffy has gained valuable experience as a Life-Health Sciences Research Intern, which resulted in two publications! In addition to her academic and research achievements, she also holds leadership positions as a Student Ambassador for the School of Engineering and Technology, the Vice President of BMES, and a Counselor in POWER Camp (Preparing Outstanding Women in Engineering Roles.)

### GRADUATE STUDENT



A year into his Master's degree, **Landan Mintch** has proved to be a valuable asset to both our department and the university. Not only is he a Research Assistant in the Translational Neural Engineering laboratory mentored by Dr. John Schild, Landan also is involved with multiple school organiza-

tions. He was elected the president of both the BME Graduate Student Association and the university level Graduate and Professional Student Government. Using his extraordinary leadership and interpersonal skills, Landan has advanced both organizations and the student experience. GSA has recently opened their doors to undergraduate members. Landan's goal is to have to have a more inclusive organization for all students within the department. He comments that this change will, "create a larger university presence and ultimately provide additional resources to the other BME organizations rooted in the department."

### FACULTY MEMBER



Meet the newest member of our team, **Dr. Sharon Miller!** Since joining the department in 2017, Dr.

Miller has quickly earned the title of Associate Chair and Director of the Undergraduate program. Prior to this position, she was the Chair of the Computer Science and Engineering Department at Aurora University. Dr. Miller's extensive research experience in molecular engineering, biomimetics and tissue engineering, paired with her passion for

teaching, allows her to bring technical skills and design principles to her courses that inspire students to challenge themselves. Dr. Miller's enthusiasm and undeniable credentials are just a few things that make her respected and appreciated among her colleagues and students.

### ALUMNI



**Nathan Glass**, BME graduate of 2009, professional success has made him this edition's alumni spotlight.

Earlier this year, Nathan was made VP of Product Development of MedTech Launch, a new consulting division of the company Genesis Plastic Welding (GPW). The new division assists clients with the entire process of getting their medical devices on the market from initial concept, to final device production and commercialization. Along with years of project management and engineering experience, Nathan brings a specialized design control and design for manufacturability knowledge to support his clients in their pursuits. His appreciable excitement, and desire for medical devices to be more accessible to clinicians and patients has motivated Nathan's hard work in MedTech Launch.

## Shout out to the BME Class of 2018!

