

How to Maximize Industry Engagement with Local Chapters

Moderator

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BMES Clinical and Industry Affairs
Committee

Graduate Research Assistant at University of North
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Speaker

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Quality Assurance Engineer II –
Cardiac Rhythm Management
Division, Abbott Laboratories

Why Maximize Engagement with Industry Chapters?

- Benefits for Students and Professionals:
 - Opportunities to Expand your Network
 - Professional Development Opportunities
 - For more information visit www.bmes.org/industrychapters

BMES BIOMEDICAL
ENGINEERING
SOCIETY
ADVANCING HUMAN HEALTH AND WELL BEING

How to start a BMES Industry Chapter



Industry chapters address the needs of biomedical engineering professionals by providing:

- Networking
- Professional development
- Business development opportunities
- Opportunity to grow a biomedical engineering professional community in your region

Current Industry Chapters

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

About Abbott

Abbott Laboratories Company Description:

Abbott is a global healthcare company that covers products across cardiovascular, diabetes care, diagnostics, neuromodulation, nutrition, and medicine.

Further information on Abbott is available on the Internet at www.abbott.com.



Agenda

- I. Networking
- II. Preparing for the Connection
- III. Staying Involved

How to Better Engage with Industry – An Industry Perspective

- Network, Network, Network
 - Never approach a company asking what they do
 - Do your homework on the company and the individual representing her



How to Network with Industry – Preparing for the Connection

- Connect via your institution's Alumni Network
- Attend Conferences
 - Appropriate attire, arrive with goals, brief introduction (look for things in common), show interest, follow up
- Email
 - Be brief!
- Connect via LinkedIn
 - Send a brief message along with the connection request



Remaining in Contact

- Resume Review
- Career Development Talks for University Students



Advice for Students

- Market yourself for the position you are applying for
- Don't have business cards? Order some!
- Write a thank you letter following the interview
- A few kind words can go a far way
- Familiarize yourself with the targeted industry's lingo
- Get involved at your university

Staying Involved

- Get involved in leadership roles
- Community Outreach
- Other Extracurricular Activities



Speaker

➤ **Marie Schwartz**

President,

Purdue University BMES
Student Chapter

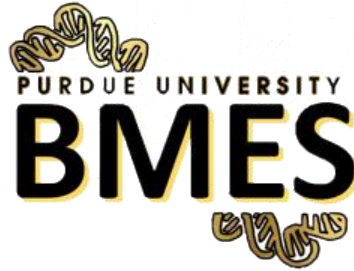


Contact: Schwar55@purdue.edu

Industry Goals

- Expose students to different career paths for BMEs
- Provide networking and job opportunities
- Focus on professionalism
- Collaborate with industry partners to create more opportunities for Purdue BME students





In addition to continued events from previous years...

- Tours of **research laboratories** for students
- Tours of medical device companies
- **Weekly presentations from graduate students in BME**
- **Additional presentations hosted by undergraduates**
- **Recruitment presentations from companies such as**
- **Eli Lilly, Epic, and Zoll Medical**

NEW!

Annual Event

Kicking off the 2017-18 academic year with the annual...

Industrial Roundtable Biomedical Engineering Networking Dinner

Undergraduates Networking with Company Representatives



Annual Event

BMES Information Session for Careers at Eli Lilly

Exploring Career Opportunities at Eli Lilly



BMES Info Session

Date: September 10, 2018
Time: 5:30 - 6:30 P.M.
Location: MJIS 1001

Prepare for IR by coming to learn about career opportunities at Lilly!



BMES Information Session for Careers at ZOLL Medical

**Exploring
Career
Opportunities
at Zoll Medical**



Advice on Seeking Professional Opportunities as an Undergraduate

Undergraduate Presentation Targeted to Peer Undergraduates

Finding Co-ops, Internships, or Research

Hello Mr/Mrs. Person,

I am interested in your _____, I really like _____ about _____. If you're interested, I've attached my resume. I'd really love to talk more about _____. I hope you may consider me for _____.

Sincerely,
Wayne

What will happen if I [click send to 20 people?](#)

It isn't all black and white

~~Reactive~~
Proactive

#BMEBytes

Ongoing Event

Presentations Addressing Graduate Research

#BMEBytes Seminar Series
Fri, Jan 19, 2018 12:30pm-1:20pm MJS1 1001

Pizza Provided!
Hosted by BMES and BMESGA

"Rapidly Vascularized Tissue Constructs with Applications in Skin Tissue Engineering"

Kevin Bann
PhD Candidate
Advised by: Dr. Sherry Yipin Hu

Large skin defects (i.e., ulcers, 1° degree burns, cancer, infection and organ failure) are a global health burden. The ability to rapidly repair or substitute lost tissue is a major unmet need in the medical field. Tissue engineering offers a potential solution to this need. However, one of the major challenges in tissue engineering is the development of vascularized tissue constructs that can be used to repair or substitute lost tissue. This seminar will discuss the development of rapidly vascularized tissue constructs that can be used to repair or substitute lost tissue. The seminar will focus on the development of vascularized tissue constructs that can be used to repair or substitute lost tissue. The seminar will focus on the development of vascularized tissue constructs that can be used to repair or substitute lost tissue.

#BMEBytes Seminar Series
Fri, Feb 2, 2018 12:30pm-1:20pm MJS1 1001

Pizza Provided!
Hosted by BMES and BMESGA

"Self-Powered, Paper-Based Electrochemical Devices for Sensitive Point-of-Care Testing"

Ashut Pal
Advised by: Dr. Ramesh Mariani
Laboratory of Flexible Electronic and Optical Devices

This work shows the development of self-powered Paper-based Electrochemical Devices (PEDs) for use in Point-of-Care Testing (POCT) to measure limited analytes. PEDs are capable of performing multiple blood and urine based diagnoses from outside a hospital environment and require no external power. In one instance, the concentration of glucose, urea and lactate acid in blood using electrochemical reactions, which provide highly sensitive and accurate results. Colorimetric detection is used for measuring an different analytes in urine. The design of PEDs that are portable and can be used through a small LCD display, which is the same analysis that can be done in the lab prior of the use of a referenceable bench-top instrument was developed to perform the detection of the use of PEDs. The history of the PEDs can be traced back to the use of a 1000-ohm resistor (1000) built into the PEDs. This paper will discuss the PEDs and compare it with a conventional PEDs. The seminar will focus on the development of self-powered, paper-based electrochemical devices for sensitive point-of-care testing.

#BMEBytes Seminar Series
Fri, Feb 16, 2018 12:30pm-1:20pm MJS1 1001

Pizza Provided!
Hosted by BMES and BMESGA

"Chondrogenic Differentiation of Bone Marrow Mesenchymal Stem Cells in Collagen Type I and II Based Hydrogels"

Claire Kilmer
Advised by: Dr. Julie C. Liu

Osteoarthritis (OA) is a debilitating condition that affects over 27 million people in the United States alone and is defined by degradation in articular cartilage extracellular matrix (ECM). Tissue engineering seeks to repair damaged cartilage by introducing an organized combination of cells, scaffold, and bioactive factors that can be implanted into a patient. Collagen type I (COL I) continues to be the most utilized type of collagen in tissue engineered scaffolds even though collagen type II (COL II), which is the most abundant type of collagen produced by chondrocytes, is considered to be the ideal environment for culturing chondrocytes. In addition, COL II has been shown to promote the secretion of ECM molecules specific to cartilage by mesenchymal stem cells (MSCs) but exhibits poor mechanical properties when forming a hydrogel. The goal was to develop COL I and II based hydrogels that enhance the biological activity of COL II and the superior mechanical properties of COL I.

#BMEBytes Seminar Series
Fri, Mar 23, 2018 12:30pm-1:20pm MJS1 1001

Free Pizza!
Hosted by BMES and BMESGA

"Computational Models of Protein Signaling within Neurons"

Matt Pharris
Advised by: Dr. Tamara Elser Green

More than 15 million American adults suffer from Alzheimer's disease or similar neurological disorders. Neurological disorders are the leading cause of death for which no effective preventative nor therapeutic strategies are available. To develop better therapeutics, we require a more complete understanding of the biochemical signaling pathways within neurons that, when disrupted, cause neurological disease and deficits in learning and memory formation. Mechanistically, neuronal signaling pathways are difficult to model experimentally. In this talk, I discuss an alternative, computational approach to understanding biochemical mechanisms within neurons, and speculate on using this understanding to identify new therapeutic targets.

#BMEBytes Seminar Series
Fri, Mar 23, 2018 12:30pm-1:20pm MJS1 1001

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"Mapping the functional organization of the brain using fMRI"

Lauren K. Lynch
Advised by: Dr. Zhongming Liu
University of Tennessee Health Science Center

Brain activity during a task reflects an unknown mixture of spontaneous, ongoing processes and task-evoked responses. We investigated the effectiveness in patterns of brain activity between a task state in naturalistic novel and resting state are not well explained by the task-evoked information, challenging conventional hypotheses regarding the independence of these signals. Further, we were able able to demonstrate stable task-related differences in the whole matter using fMRI, which has only rarely been used to study functions in this tissue type. Finally, we examined the ability of combining resting state with a same-evoking task in understanding changes in brain activity during functional brain network. We found a reduction in neural task-based activations and resting state FC that appeared to be directly related to diagnostic severity. Taken together, this work paves the way for a novel framework for understanding neural dynamics in health and disease.



Ongoing Event

Research Laboratory Tours for Purdue Biomedical Engineering Undergraduates

Tours of Research
Laboratories Hosted
by Professors and
Graduate Students



Ongoing Event

Medical Device Company Tours for Purdue Biomedical Engineering Undergraduates

Tours of Medical
Device Companies
Hosted by
Employees



ZIMMER BIOMET



DePuy Synthes

COMPANIES OF *Johnson & Johnson*



Our continued goals:

1. Open doors for students
2. Support biomedical engineering and the local Indiana community



Acknowledgements

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Chantalle Brown

Purdue Chapter Board: 2017-2018

Weldon School of Biomedical Engineering

Industry Contacts

QUESTIONS?

BMES Activities and Events

- **BMES Cellular and Molecular Bioengineering Conference**
 - **January 2-6, 2019** - Coronado "San Diego", CA
- **BMES/FDA Frontiers in Medical Devices Conference**
 - **March 19-21, 2019** - Greater Washington DC Area
- **4th Biomedical Engineering Education Summit Meeting**
 - **May 29-31, 2019** - Cleveland, OH
- **BMES Annual Meeting**
 - **October 16-19, 2019** – Philadelphia, PA