



Summer 2024 Newsletter

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Impact**

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Where
**Engineering
Innovation**
Impacts Health



Save the Date:

BMES Conference Bash

At our upcoming BMES Annual Conference in Baltimore, MD, we are hosting a reception and want YOU to attend! This reception is intended for any Lehigh BioE-affiliated BMES conference attendees, nearby BioE alumni, and industry partners. Our goal is to gather together for a night of reconnecting, networking, socialization, and good food.

This event will be held the evening of **Thursday, October 24th**. Location is TBD, but will be close to the Baltimore Convention Center. For more information, follow our social media accounts and website posts. Please reach out if you have any questions or comments regarding this event. We hope to see you there!

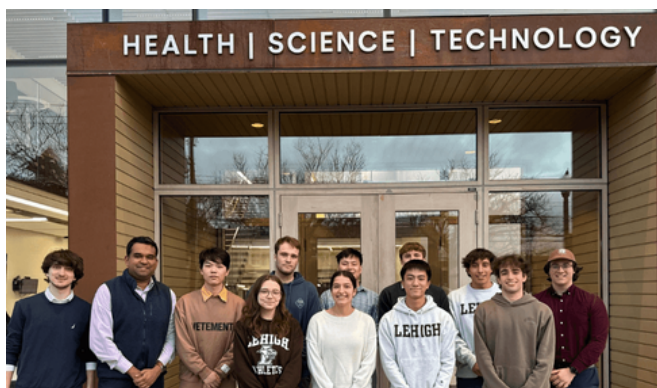
BMES
BIOMEDICAL ENGINEERING SOCIETY
2024 ANNUAL MEETING

OCTOBER 23-26, 2024
THE BALTIMORE CONVENTION CENTER • BALTIMORE, MD



Faculty Making an Impact

Seshadri Lab announces wearable tech collaboration with Beyond Pulse



The Seshadri Laboratory at Lehigh University is teaming up with Beyond Pulse, a leading innovator in wearable technology. This partnership marks a significant advancement in the realm of health and performance monitoring, particularly in the context of athletics and beyond. [READ ARTICLE](#)

Faculty Highlights

- **Anand Jagota**, leading a team of interdisciplinary researchers, has been awarded a four-year, \$2 million grant to study DNA-wrapped carbon nanotubes as nanosensors that detect molecules such as biomarkers for cancer, or possibly other diseases. [READ ARTICLE](#)
- In collaboration with the Energy Research Center (ERC), a team of researchers, including **Xuanhong Cheng**, received a \$2.5 million grant from the Department of Energy (DOE) to identify rare earth elements (REEs) and elements of interest (EOIs) in wastewater and solid waste streams, and to develop the technology that could extract those elements. [READ ARTICLE](#)
- **Lesley Chow** and **Tommy Pashuck** presented numerous talks, sessions, and posters at the 12th World Biomaterials Congress in Korea.
- **Lori Herz**, **Dhruv Seshadri**, and **Tomas Gonzalez-Fernandez** chaired sessions at the 5th Biomedical Engineering Education Summit at New Jersey Institute of Technology.
- **Lesley Chow** and **Dhruv Seshadri** were selected as recipients of Lehigh's 2024 Faculty Research Grant.
- **Tomas Gonzalez-Fernandez** and **Dean Stephen DeWeerth** assisted Rossin College in leading a variety of science and engineering activities to young fans at Lehigh Valley IronPigs' STEAM Night. [READ ARTICLE](#)



BioE Recognized at the 2024 Rossin Awards

At the annual Rossin College Awards, held May 8th, faculty and staff of Lehigh's Rossin College gathered to celebrate achievements in research and education excellence within the college. Three of our BioE faculty members were awarded:

- **Yu Zhang:** Interdisciplinary Research Excellence Award
- **Anand Ramamurthi:** Excellence in Research Scholarship and Leadership Award
- **Tomas Gonzalez-Fernandez:** Diversity, Equity, and Inclusion Award

[READ MORE](#) about this event and the awards given

Stronger Together

Student BMES Club Brings Together Students, Alumni, and Faculty

Our student organization, Lehigh Biomedical Engineering Society, hosted several events during the Spring semester. The group's annual paint night brought Lehigh BioE students together to de-stress and build community. On the professional development front, the group brought in BioE faculty member, Niels Holten-Andersen to talk about the campus research ecosystem and to provide tips on how to become involved. Additionally, the BMES group hosted an alumni panel and Q&A session with recently graduated Lehigh graduates to talk about life post-Lehigh. Thank you, Alums!



LU e-NABLE Improves Development



LU e-NABLE, in collaboration with Ayúdame3D, a Spanish nongovernmental organization (NGO), is working to incorporate muscle sensors and electronics into the NGO's 3D printed prosthetic devices to enhance the product's abilities. After refining their design, LU e-NABLE plans to work with staff and patients at Good Shepherd Rehabilitation Clinic in Center Valley, PA for further feedback and testing.

[READ ARTICLE](#)

3rd Annual Research Day Joins Together Clinic, Industry, and Academia

The Department of Bioengineering held its 3rd annual Research Day in the Health, Science, and Technology Building. The event, centered on the theme of Academia, Industry, and the Clinic, aimed to inform on the intricate dynamics of the healthcare ecosystem where academic research, industry, and clinical practice intersect.

Clinical Speakers:	Industry Speakers:
Gregory Carolan, MD Orthopedic Surgery and Sports Medicine St. Luke's University Health	Noel Ferraro, PhD, Scientist II Resilience
Amanda Clark, PT, DPT, NCS, Director of <i>Good Shepherd Creates</i> Good Shephard Rehabilitation Network	John Huang, PhD Founder & CEO TheWell Bioscience
Brittany Dierwechter, PT, DPT, PCS, Pediatric Physical Therapy Residency Program Coordinator Good Shephard Rehabilitation Network	Nick Leight Lehigh BioE '16 Lead Product Engineer ABEC
Shaden Eldakar-Hein, MD Senior Associate Dean St. Luke's University Health Temple University	Jordan Protchko Moreau, Lehigh BioE '14 Commercial Op Manager Catalent Pharma Solutions
Sharvil Sheth, MD Div. Chief, Vascular Surgery St. Luke's University Health	Nithya Srinivasan, MBA, Sr. Director, Sales and Marketing Janssen Oncology Inc
THANK YOU DONORS: Harneet Chana '06 (Alumni), Daniel DePietro '13 (Alumni), Alexandra Gilroy '08 (Alumni), Marinee Lees '05 (Alumni), Janice Phillips, Y.S. Prakash, V. R. Murthi, Clare Rinnac, and Sharvil Sheth	Toral Zaveri, PhD Senior Scientist OraSure Technologies



The event also included a graduate student poster competition, where 20 students presented their research to faculty and guest evaluators. **Gerry Ortega** won first place and **Alex Arteaga** won second place for their stellar research. Thank you to all who presented and participated!



Undergraduate News

Welcome Newly Declared First Year Bioengineering Students!



At the end of each academic year, first year students in the P.C. Rossin College of Engineering & Applied Science declare which engineering discipline they want to pursue. This year we had over 50 rising sophomores declare BioE, and we are thrilled to welcome them to our department, labs, classes, and into the greater BioE family. Here are some of our new students who attended our BioE end of the year department party.

BioE Took the 2024 Undergraduate Research Symposium by Storm

Five BioE students represented our department at the 2024 David and Lorraine Freed Undergraduate Research Symposium: **Isabella Federico** (first place and people's choice), **Krishna Jayaram**, **Johnny Lin**, **Samantha Mapps** (honorable mention), and **Francesca Morrell**. We are proud of our undergraduate students and their great accomplishments in the field of research! [READ ARTICLE](#)



A New Cohort of Rossin Junior Fellows (RJFs) Announced

With Spring semester comes the appointment of new Rossin Junior Fellows who are undergraduate students selected to represent their department, the Rossin College, and the greater Lehigh community, serving as ambassadors throughout their time as students. 2024 BioE students selected include: **Ryan Beam**, **Michael Ciliberti**, **Alexis Kelerchian**, **Bingxin Liu**, **Lily Makkas**, and **Sonya Savini**. Continuing BioE RJF, **Aditi Sathe**, has been selected as RJF President for 2024-2025. [READ MORE](#)

BioE Celebrates Our Graduates!

Thirty undergraduate students received their Bachelor of Science degree in Bioengineering at the end of Spring semester. We had a wonderful time celebrating them at commencement, reminiscing about college life, and discussing future plans.



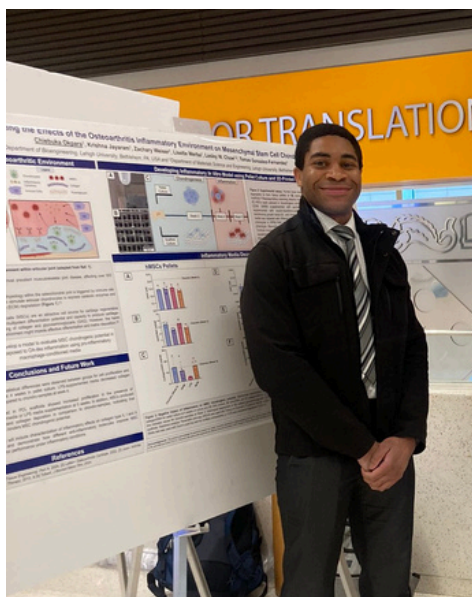
Here is a snapshot of some of our new graduates and their upcoming plans:

- **Emma Anderson '24** has accepted a position at Sanofi as a Industrial Operations Associate in the Vaccines Manufacturing and Supply Rotational Development Program.
- **Allyson Deihl '24** will be returning to Lehigh to pursue a MS in Bioengineering.
- **Kamryn Li '24** has accepted a position with Procter & Gamble as Process Engineer in the Family Care Engineering Sector.
- **Mackenzie Lamotteo '24** has accepted a position at Applied Controls Engineering as a Controls Engineer.
- **Jonathan Quilet '24** will be returning to the Chicago area to work as a Biomedical Equipment Technician within a local hospital.
- **Anjali Shah '24** will be starting medical school at Temple University School of Podiatric Medicine.

Graduate News

Graduate Student Highlights

- **Anthony Cino** (featured below, center) presented a poster at MIT Polymer Day.
- **Xinyu Cui** and **Luke Wang** successfully defended their dissertations, and plan on finishing their research this summer!
- **Ali Muth** (featured below, right) was awarded an American Heart Association (AHA) pre-doctoral supplementary grant to promote diversity in science for two years. Ali is a doctoral student working in the Ramamurthi lab.



- **Chiebuka Okpara** (featured left) presented a poster at the PennMedicine Cartilage Repair Symposium.
- **Praneetha Pulyala** is completing an internship at Johnson and Johnson focusing on developing cell-based assays to screen formulations for viral stability.
- **Xiaoyu Tong** first authored two papers which were published in Nature Mental Health and the Journal of Affective Disorders.
- **Matt Ziarnik** is beginning an internship at Unilever working in supply chain management.
- **Samuel Rozans** (featured left) presented a poster at the 12th World Biomaterials Congress Conference in Korea. He also was awarded a 2024 Graduate Life Leadership Award from Lehigh's Graduate Life Office.



Graduate Degrees Granted



In addition to our many undergraduate students who finished Spring semester with their graduation, we are excited to add four MS students to our alumni list! Our MS graduates are **Alex Arteaga** (who will be continuing at Lehigh to pursue his PhD in Bioengineering), **Jailene Garcia**, **Peter Jensen** (who will be starting medical school this fall at the University of Maryland School of Medicine), and **Dave Shaffer**. We look forward to seeing these graduates thrive in their future work.

Graduate Seminar Series Brings Diverse Perspectives in Academia and Research

Drawing upon our theme of highlighting the various ways that academic research, industry, and clinical practice intersect within the healthcare ecosystem, this semester we welcomed six seminar speakers to provide their unique perspectives. Every seminar brought a full house and great conversations. Thank you to all of our guest speakers, for sharing your knowledge and experience with our students!

Please contact our team if you are interested in giving a seminar for the upcoming school year.



Dr. Young
Mao



Dr. Gary
Wnek



Sam Murphy-
Kerry



Dr. Adrienne
Rosales



Dr. Kyle
Lampe



Dr. Li Shen

Alumni Updates



Alumni Coming Full Circle

Professors Susan Perry and Lori Herz met up with **Tracy (Gwyther) Hookway**, PhD '06, an alumna from one of our very first Department of Bioengineering cohorts! Tracy is an Assistant Professor in Biomedical Engineering at Binghamton University, who recently graduated her first set of PhD students. It is always wonderful seeing the success of our alumni and their dedication to the field of Bioengineering.

Snapshot of Alumni Career Updates

- **Chandler Coggins** '18 began a new position as Associate Director on the DTE team at Vertex Pharmaceuticals.
- **Cassandra Farrell** '23 graduated from Lehigh University with a MEng in Technical Entrepreneurship and will begin working as a Biomedical Engineering Technical Specialist at Polymedco.
- **Taylor Gomez** '19 was promoted to Systems Engineer at Insulet Corporation.
- **Sara Gould** '22 received an MS degree in Biomedical Engineering from Stony Brook University.
- **Alexandra Jabour** '19 has graduated from the Maurice A. Deane School of Law at Hofstra University. She will be working at Carter, DeLuca & Farrell LLP as a Technical Advisor.
- **Dylan Kmetz** '14 is starting a new position as Business Development Manager at ZETA.
- **David Morra** '10 is starting a new position as Senior Director, Regulatory Digital Health at Merck.
- **Alison O'Donnell** '17 was promoted to Manager Technical Support at Johnson & Johnson.
- **Saral Patel, MD**, '19 completed medical school at New York Medical College and will start a new position as Resident Physician at University of Pennsylvania.
- **Anna Sternberg, PhD**, '15 began a new position as Scientist at Nava Therapeutics.
- **Emily Walczyk** '19 received an MBA from Lehigh University, while working as a Digital Health & Innovative Alliances Senior Specialist at Merck.
- **Rachael Wolf** '15 was promoted to Supervisor SEM at CMI Media Group.

Fun Times!

Students Take Field Trip to Local Clinic

BioE 383/483 Biomedical Imaging class had a field trip to St. Luke's radiology and biomedical engineering departments in March.

"I found our tour of St. Luke's facilities to be extremely rewarding. The opportunity to see various imaging devices and learning about their operation was a great way to enhance our knowledge on the subject." - **Tony Del Vecchio**, current BioE MS student.



Lab Group Fun



The Tomas Gonzalez Fernandez Lab celebrated the Spring Semester in a fun bowling bonding activity.

From left to right:

Owen Fitz, Peter Jensen, Josh Graham, Professor Tomas Gonzalez-Fernandez, Chiebuka Okpara, Luke Fardone, Rachael Dillon, and Lisette Werba.

Closing the School Year With a Bang

Thank you to students, faculty and staff who came out to celebrate the end of the semester and school year! We shared updates regarding our student groups, recognized students for their service and leadership contributions to BioE, ate good food, and discussed summer plans. We are excited for our students and look forward to what 2024-2025 will bring.



Support Lehigh BioE:

Gifts from our generous friends enrich learning opportunities for students and strengthen the teaching & research capabilities of our department.

[GIVE NOW](#)

BioE Alumni: Want to be in the Next Newsletter?

Share your updated contact info, professional info (company and position), and any other exciting news/pictures with us.

[SHARE NEWS](#)

Contact Us:

Sinclair Lab
7 Asa Drive,
Suite 205
Bethlehem, PA 18015
(610) 758-4091
inbioe@lehigh.edu
engineering.lehigh.edu/bioe

Connect With Us On Social Media:

