SLU SCHOOL OF SCIENCE AND ENGINEERING AUGUST 2025

# NEWSLETTER



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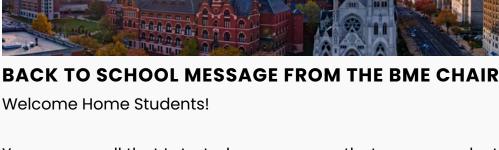
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You may recall that I started my message that same way last year at this time. If you are new to SLU, we hope you come to feel of SLU as a home of sorts. The faculty and staff in BME are committed to your wellbeing, to your growth as a Biomedical Engineer, and to the opportunities that will make your career successful. Like home, in BME you can find a sympathetic ear, advice on various things like jobs, internships, grad school, and almost anything career related. If you find yourself in a position where you don't know something, we can help with almost anything.

We have some BIG news. BME is moving Shannon Hall. to Shannon was renovated fairly recently, and due to other changes at SLU, there is space available there. I believe this to be among the best changes that BME has ever experienced. We'll be closer to colleagues and in a space convenient more for students. (cont. p. 2)



#### BACK TO SCHOOL MESSAGE FROM THE BME CHAIR CONTINUED

Many of the resources that we use are currently in the Shannon, Macelwane, Monsanto complex. Some of the spaces that labs will occupy need further renovation, so this move won't physically happen until sometime in 2026. I'll provide updates as I can.





We are planning an undergraduate student event for September 23rd, 5-7 pm, so put that on your calendar now. The September 23rd event is intended to help you make connections to classmates, to upper classmen, to the faculty, etc. It is important to build your professional network, and this event can be a great step in that direction. More on this event in the coming days.



Finally, if you're a freshman, it is likely that this is the first time you've been on your own for an extended time. My advice is that you plan; keep a calendar that has all the important dates: study time, homework due dates, exam dates, student org meetings, and the above student event. Don't get behind with your studies/work. Make time for fun. You all need some way to vent your stress. Maybe it's a student org, or maybe you play a musical instrument. Everyone needs a stress reliever, whether at your SLU home or back home.

See you soon,

Jam man

J. Gary Bledsoe, Ph.D.
BME Department Chair
Professor

### **WELCOME, BME FRESHMEN!**

On Monday, August 18th, first year biomedical students were welcomed to the department by **Dr. Gary Bledsoe**.

New student orientation provided an introduction and overview of the Biomedical Engineering Program. In total, the freshmen BME class is 27 students strong!



#### **FALL 2025 NEW BME GRADUATE STUDENTS**



Samantha Schaefer
PhD Student
St. Louis, Missouri



Ashif Al Nayem Zeesan
PhD Student
Khulna, Bangladesh



Ronny Allen
Non-Thesis MS Student
Evergreen Park, Illinois



Vennela Chowdary Gullapalli

Non-Thesis MS Student

Bapatla, Andhra Pradesh,

India



Regan Gibson

Thesis BS/MS Student
Chicago, Illinois



Tyler Hill
Non-Thesis BS/MS Student
Bolingbrook, Illinois



Gweneth Hogan
Thesis BS/MS Student
St. Louis, Missouri



Hannah Johnson Thesis BS/MS Student Peoria, Illinois



Ivonne Larrea
Non-Thesis MS Student
Bahia de Caraquez, Ecuador



Abby Mallo
Thesis BS/MS Student
Oak Lawn, Illinois



Renee Peppers Thesis BS/MS Student St. Louis, Missouri



Lindsay Rehme Thesis BS/MS Student Wentzville, Missouri



Ben Winter
Thesis BS/MS Student
St. Peters, Missouri

# DR. GARG TAKES PART IN "TWO SCIENTISTS WALK INTO A BAR" EVENT

Associate BME Professor, Dr. Koyal Garg, had an absolute blast participating in the St. Louis Science Center's brand-new program, "Two Scientists Walk into a Bar," on July 19th. This fantastic initiative gave science center goers the unique opportunity to chat with local STEM experts over casual drinks and ask them anything that came to mind. Dr. Garg discussed biomaterials, stem cells, and electrical for musculoskeletal repair stimulation everyone who stopped by. Pictured with Dr. Garg is her science partner for the night, Alison Breakfield, a PhD candidate in the Biology department at SLU (far right), and Ruth Watt, the manager of STEM events at the Saint Louis Science Center (center).



#### SLU BME WELL REPRESENTED AT SCIFEST

On August 9th, the St. Louis Science Center hosted SciFest. The event was designed to give organizations around the greater Saint Louis area an opportunity to introduce STEM to children. The Biomedical Engineering department was represented by SLU's chapters of Society of Women Engineers (SWE) and Biomedical Engineering Society (BMES).

The **SWE** table offered a mechanical claw crafting activity and demonstrated a demo model of Medtronic's Micra transcatheter pacing system.



The **BMES** table entertained visitors with a "guess the implant" game, including hip implants, intramedullary rods, and 3D-printed models of the heart.



#### SCIENCE FALL MAGANZINE

**Dr. Koyal Garg's** article, "The Wonder of Biomaterials," was featured in the latest edition of the St. Louis Science Center's magazine: NewScience. Check out **the full issue.** 





## **BME STUDENT SAILS HIS WAY TO THE OLYMPICS**



When he's not working in BME Assistant Professor **Dr. Alex Reiter's** lab, Doctoral student **Trent Hardwick** can be found training for the Los Angeles 2028 Summer Olympics. He's been sailing for about 15 years now, and during that time he's progressed through various boats and classes. Trent hopes to qualify for the 2028 games under his home country of Belize. In order to meet this goal he sticks to an intense training schedule. A typical week for Trent includes up to 10 workouts ranging from weightlifting, cycling, swimming and

cardio. He also aims to get in a training session on the water each weekend. Trent's training has taken him all around the world. He's worked with coaches in California, Europe, and Uruguay over the years. To top it all off, Trent's also training for an Ironman where he will complete a 2.4-mile swim, 112-mile bike ride, and 26.2-mile run in a 1 day competition. The BME department wishes Trent good luck in all his endeavors!







#### **BME SERVICE SPOTLIGHT**

It is estimated that SLU community members provide more than 1.6 million volunteer hours each year. The BME department is no stranger to volunteers. For the past two years senior BME student **Sam Ghaddar** has been volunteering with the American Red Cross. He most often works with the Disaster Action Team.

In this role Sam responds to local emergencies such as house fires, tornadoes, flooding, etc. Once dispatched to the scene Sam conducts a damage assessment and gathers the client's information. Lastly, he connects them with any resources they may need such as comfort kits, blankets, and psychological first aid.





Being there for people in tough moments and working alongside a dedicated team is something I value. I volunteer with the Red Cross because I believe in showing up for people when they need it most. Emergencies strip life down to its essentials: safety, shelter, and compassion, and being able to provide those in real time is rewarding. It's a way to turn empathy into action and to make a difference for someone in the middle of what might be the hardest day of their life.

Do you volunteer or have a commitment to service you'd like featured in the newsletter? Click <a href="here">here</a> to be part of our next spotlight!

#### BME UNDERGRADUATE INTERNSHIP FEATURE

BME junior, **Olivia King**, spent this past summer in Newark, Delaware as an undergraduate researcher for the University of Delaware. Olivia was able to secure her position through the U.S. National Science Foundation Research Experiences for Undergraduates (NSF REU) program. The program often offers students a stipend and assistance with housing, meals and travel. Learn more about the program and its opportunities <a href="here">here</a>. See what Olivia has to say about her experience below!





"My work focused on the effects of peptide length on liquid crystal formation of single-charged bundlemers. I performed peptide synthesis in developing amino acid sequences and used visual and computation methods to verify liquid crystal behavior. Day to day, I usually ran experiments, collaborated with graduate students, and read literature to further expand my knowledge of material science. To wrap up the summer at UD, I presented my work at a campus-wide undergraduate research symposium."

-Olivia King

Have you completed a BME related internship or research experience outside of SLU? Fill out <u>this form</u> for a chance to be featured in our next Internship Spotlight!



#### **FALL 2025 BME SEMINAR SCHEDULE**

department The **BME** hosts a weekly seminar that features invited speakers from academia and industry as well as SLU BME graduate students. The seminar is a great opportunity to learn about the latest research taking place broadly in the biomedical engineering field and the amazing graduate work our students are performing at SLU. Attendance was high for the first two seminars that took place  $27^{\text{th}}$ August and on September 3rd. Sign up here to receive BME Seminar emails announcing upcoming speakers. This is separate from our newsletter distribution list.

Date	Presenter(s)	Affiliation
8/27/2025	Whitney Stoppel, PhD	Associate Professor, Chemical Engineering, University of Florida
9/3/2025	Rebekah Boos and Hannah Johnson	Graduate Student and Postdoctoral Researcher, Biomedical Engineering, SLU
9/10/2025	Annette McCoy, DVM, MS, PhD, DACVS	Associate Professor, Equine Surgery, University of Illinois UrbanaChampaign
9/17/2025	Kevin Sekerak, Rebecca Sheetz, and Abigail Mallo	Graduate/Undergraduate Students, Biomedical Engineering, SLU
9/24/2025	No seminar – Wellness day	
10/1/2025	Tianyi Li, PhD	Assistant Professor, Civil Engineering, SLU
10/8/2025	No seminar - BMES annual meeting	
10/15/2025	Massar Fanharawi, PhD	Visiting Scholar, Biomedical Engineering, SLU
10/22/2025	No seminar – Fall break	
10/29/2025	Charlie Minerd and Atharva Bhagwat	Medical Students, SLU
11/5/2025	Richard DiPaolo, PhD	Professor and Chair, Molecular Microbiology and Immunology, SLU
11/12/2025	No seminar	
11/19/2025	Fuad Al Hasan Bin Enam and Fisher Adkisson	Graduate Students, Biomedical Engineering, SLU

SLU Department of Biomedical Engineering BME Research and Experiential Learning Opportunities for Undergraduates

Are you interested in experiential learning opportunities in BME?

- Work closely with professors and graduate students on impactful research
- Acquire exposure to hands-on applications in improving healthcare
- Apply class knowledge to reallife situations
- · Develop lab skills
- · Gain resume experience

#### **Research Areas**

- +Biomaterials
- +Biomechanics
- +Mechanobiology
- +Neuroengineering and Brain Computer Interface
- +Regenerative Engineering
- +Scaffold Production
- +Tissue Engineering



Scan me for faculty profiles!

#### **CALLING ALL UNDERGRADUATES!**

Are you eager to collaborate with professors and graduate students on impactful research? Want to gain hands-on experience that's advancing healthcare? Looking to develop lab skills and boost your resume? Apply for the BME Research and Experiential Learning Opportunities for Undergraduates! This program offers a unique chance to immerse yourself in meaningful research and practical applications. Don't miss out! Click <a href="mailto:here">here</a> to fill out the application and then submit your resume to biomed@slu.edu.

# THE MENTOR COLLECTIVE FOR UNDERGRADUATES AND ALUMNI!

We're calling on valued members of our community to serve in Saint Louis University's School of Science and Engineering Mentor Collective Alumni Network! This program matches undergraduate sophomores, juniors, and seniors with mentors like you who have been in their shoes and know first-hand what it's like to learn at SLU. Click <a href="here">here</a> to sign up to be a mentor.

#### ATTENTION BME ALUMNI

Are you a SLU BME Alumni? If so, we'd like to invite you to fill out the form below to give us your updated contact information (email) and tell us where you have landed after graduation. With your permission, we would love to highlight your career achievements and stay connected with you in the future!

**BME ALUMNI FORM** 



## **BME NEWSLETTER ACCESS**



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