

NEWSLETTER



SAINT LOUIS UNIVERSITY

DEPARTMENT OF BIOMEDICAL
ENGINEERING

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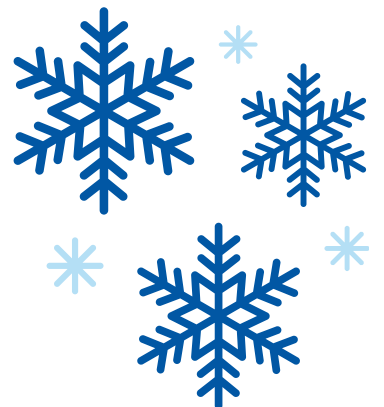


NEW YEAR MESSAGE FROM DR. BLEDSOE

Happy New Year, BME Community! Things in BME were off to a shaky start in January due to a snowstorm, but we worked through all the challenges that arose as a result. Perhaps it is a good analogy for life that sometimes we must navigate the abundant but unexpected piles scattered everywhere and eventually we get used to that alternate path.

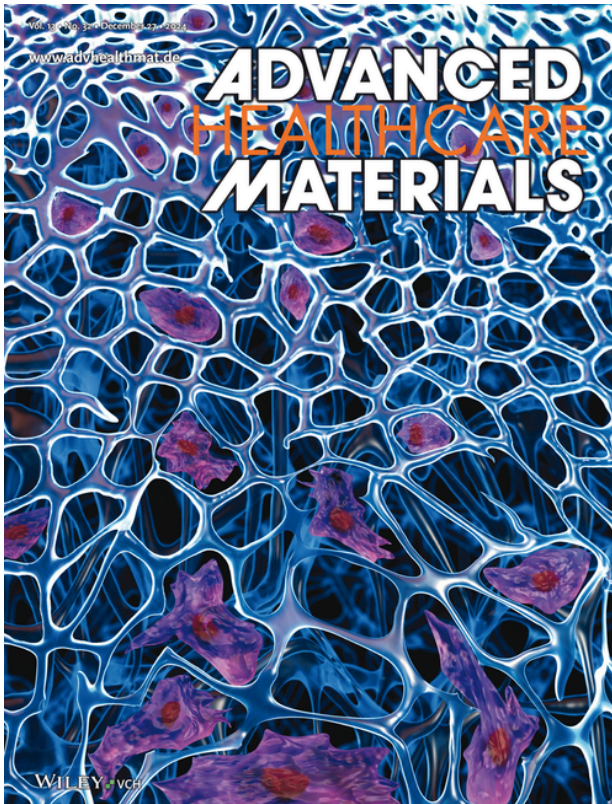


With the snow, we have the knowledge that it IS going to melt, and with life events, it can seem like we'll never be done, like there is always more to do. Just remember that we're all affected, do your best, and know that your best will pull you through life's snowiest moments.



RENDERING FROM DR ZUSTIAK'S LAB CHOSEN AS COVER ART

An image showcasing a publication by Dr. Zustiak's lab was selected as the cover image for the December issue of Advanced Healthcare Materials Volume 13 Issue 32. This is a high-impact journal in the field of Biomaterials with an impact factor of 10. The image was created in collaboration with Olivia Widdoes, 2024 BS/MS BME graduate.



NEW PUBLICATION

This issue includes the original research article, "Tunable Viscoelasticity of Alginate Hydrogels via Serial Autoclaving." Nathaniel Huebsch, **Silviya P. Zustiak**, and co-authors introduce a facile and cost-effective technique using serial autoclaving to control alginate molecular weight. This method enables the creation of hydrogels with tunable mechanical properties, allowing for diverse tissue engineering and mechanobiology applications.

New and Noteworthy: Alginate hydrogel elasticity and stress relaxation times can be tuned by reducing the molecular weight of the alginate polymers used to form the gels.

Click [here](#) for the cover image link.

Author List: Hamidreza Moheimani, **Samuel Stealey**, Sydney Neal, **Eya Ferchichi**, Jialiang Zhang, Marcus Foston, Lori A. Setton, Guy M. Genin, Nathaniel Huebsch, **Silviya P. Zustiak**

CLICK [HERE](#)
TO READ THE
ARTICLE



zustiaklab.com



DISSERTATION DEFENSE

Eya Ferchichi, Ph.D. candidate working in Dr. Zustiak's soft tissue engineering lab, successfully defended her dissertation titled, "Gelatin Based Hydrogels and Scaffolds for Cell Encapsulation and Mechanosensing Applications" on January 14th, 2025. Join us in congratulating her success!



STUDENT ORGANIZATION HIGHLIGHT - SHPE

SLU SHPE (Society of Hispanic Professional Engineers) is a great organization for Biomedical Engineering (BME) students looking to expand their professional development and network within the industry. SHPE offers valuable resources such as interview and resume workshops to help you prepare for your career. Every year SHPE takes students to the National SHPE Conference, where they have the chance to attend insightful speaker events and connect with top companies at the career fair. It's an excellent opportunity to meet industry professionals, learn about cutting-edge innovations, and explore internship and job opportunities. Joining SLU SHPE is a great way to build your resume, enhance your skills, and connect with a supportive community of like-minded peers and professionals.



UPCOMING BME CAREER FOCUSED EVENTS AT SLU



BME HANGOUT
LIFE AFTER B.S. (BACHELOR OF SCIENCE)
Monday, 2/24
4:00 PM to 5:30 PM, BME 1004

This hangout is all about helping students navigate the next steps. Whether you are interested in internship and research opportunities while at SLU, job searching, networking, or figuring out the best path to reach goals, this event will provide you with valuable insights. Plus, there will be food! Join us for an informative and fun session.

Do you have ideas for future BME Hangouts or topics you'd like us to cover? Fill out this 3-question [feedback form](#). You must be logged into your SLU Google account to access the form. Feedback is always welcome and helps make these events as engaging and useful as possible.

J&J MEDTECH INFO SESSION WITH
BIOSENSE WEBSTER – [CLICK HERE](#)

Opportunities at J&J MedTech

INFORMATION SESSION

Thursday, February 20, 2025

4-5 p.m.

Career Services, Griesedieck Hall

Attend this information session to learn about:

- Future opportunities at J&J MedTech
- J&J's Electrophysiology Immersion (EPI) program
- The Associate Clinical Account Specialist role
- Internship opportunities

The following majors are encouraged to register:

- Biology, Chemistry, Biochemistry, Physics
- Aerospace, Biomedical, Chemical, Electrical, Mechanical, or General Engineering
- Health Sciences, Kinesiology, Informatics and/or Data Science

Space is limited.

Please register in advance.

Pickelmann's will be provided.



BME SPRING SEMINAR – FEBRUARY/MARCH SCHEDULE



The BME department hosts a weekly seminar that features invited speakers from academia and industry as well as SLU biomedical engineering 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 work our graduate students are performing at SLU. Sign up [here](#) to receive BME Seminar announcements for upcoming speakers. This is separate from our newsletter distribution list.

2/5 No seminar - Wellness Day

2/12 Fatema Jamali and James Baker, SLU BME Graduate Students

2/19 Jasenka Verbar, Ph.D., External Partnerships, MilliporeSigma

2/26 Michael Borovik and Patrick Hinkle, SLU BME Graduate Students

3/5 and **3/12** No seminar

3/19 Muruhan Rathinam, Ph.D., Professor, Mathematics and Statistics, University of Maryland Baltimore County

3/26 Mia Ridolfo, BME BS/MS Student, and Esha Pattan, BME Undergraduate Student

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 real-life 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 [here](#) 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 [here](#) 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](#)

**CONNECT.
INSPIRE.
MENTOR.**

Join the Mentor Collective Alumni Network at SLU's School of Science and Engineering today.

Register:

BME NEWSLETTER ACCESS



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