



# Biomedical Engineering Graduate Program & Research Newsletter

School of Science and Engineering | Saint Louis University

## Awards

Congratulations to **Dr. Silviya Zustiak** who has been nominated 2023 Women of the Year in recognition for her history of achievement and service by the SLU Women's Commission. Dr. Zustiak's work has encouraged emulation and great appreciation by others.

Congratulations to **Ether Dharmesh**, undergraduate researcher in Dr. Silviya Zustiak's Lab, who won an Honorable Mention Award in the Chemical Biology Category at the American Society for Biochemistry and Molecular Biology annual meeting in Seattle, WA, March 25-28.

Congratulations to **Dr. Silviya Zustiak** Lab whose article, "*Hydrogel-based microfluidic device with multiplexed 3D in vitro cell culture*" is in the Top 100 Materials Science Scientific Reports papers published (received 1730 article downloads) in 2022. The work was published by A Clancy, D Chen, J Bruns, J Nadella, S Stealey, Y Zhang, A Timperman and SP Zustiak.

## Published Papers

#**E. Dharmesh**, #**S. T. Stealey**, M. Salazar, D. Elbert, \***S. P. Zustiak**, "Nanosilicate-Hydrogel Microspheres Formed by Aqueous Two-Phase

Separation for Sustained Release of Small Molecules", in press, Frontiers in Biomaterials Science

\*F. Xu, H. Guo, **S. P. Zustiak**, G. M. Genin, "Targeting the physical microenvironment of tumors for drug and immunotherapy", Editorial for Advanced Drug Delivery Reviews, 2023, 196, 114768 (IF: 17.873)

P. U. Joshi, S. #**M. Kroger**, **S. P. Zustiak**, \*C. L. Heldt, "Multimodal Peptide Ligand Extracts Parvovirus from Interface in Affinity Aqueous Two-Phase System", in press at Biotechnology Progress, 2023 (IF: 2.909)

D. Shakiba, \*G. Genin, \***S. P. Zustiak**, "Mechanobiology of cancer cell responsiveness to drug and immunotherapy: mechanistic insights and biomaterial platforms", Advanced Drug Delivery Reviews, 2023, 196 (IF: 17.873), INVITED for Special Issue on "Targeting the Physical Microenvironment of Tumors for Drug and Immunotherapy"

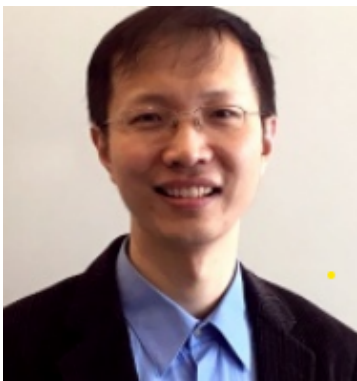
## Conference Presentations

**Dr. Andy Hall** presented “*Fabrication and Characterization of Highly Radiopaque Microspheres for Prostate Cancer Chemoembolization*” at the Society of Interventional Radiology 2023 Annual Scientific Meeting on Monday, March 6, 2023 at Phoenix, AZ. The work was co-authored by K Caviness, K Pereira, and SP Zustiak.

**Ether Dharmesh**, undergraduate researcher in **Dr. Zustiak’s** lab, presented “*Nanosilicate-Hydrogel Microspheres Formed by Aqueous Two-Phase Separation for Sustained Release of Small Molecules*” at the American Society for Biochemistry and Molecular Biology Annual Meeting which was held in Seattle, Washington from Saturday, March 25 to Tuesday, March 28, 2023.

## Seminar Presentations

Thank you to all the faculty candidates (pictured below) who were able to visit SLU, engage with students and faculty, and deliver excellent research presentations.



**Guangyu Xu, Ph.D.** is an associate professor in electrical and computer engineering at the University of Massachusetts in Amherst and gave a talk on “*Scalable optoelectronics for high-precision cell interfacing, biosensing, and beyond*”.

**Alex Reiter, Ph.D.** is a postdoctoral research associate in the Neuromuscular Biomechanics Lab at the University of Wisconsin-Madison and gave a talk on “*Enhancing musculoskeletal therapeutics by tracking functional tissue behavior*”.



**Jon S. Heiselman, Ph.D.** is a postdoctoral researcher at Memorial Sloan Kettering Cancer center with joint appointment at Vanderbilt University and gave a talk on “*Transforming medical imaging to guide precision cancer interventions*”.



## Social Events

Thank you to all the students and faculty who could make it to our Graduate Students social hour at Fieldhouse on Thursday, March 23<sup>rd</sup>.

