## 1. Summary of the event

Registration began early in the morning followed by a welcome and keynote by Dr. John Rose, the principal scientist in biomaterials in advanced surgical devices from Smith and Nephew. Dr. Rose is an experienced biomaterials research scientist in Memphis who studies biomaterials interfacing with the human body. Dr. Rose has published papers on a wide variety of materials and their degrading and wearing characteristics ranging from non-degradables, biodegradables, bone cement, and other polymer biomaterials.

Following the keynote, the day went on to include research presentations about tissue engineering, fabrication methods, and simulation and modeling host response. There were also several panels that discussed alternative career paths, empowering women in engineering, and working in industry and academia. There were two dedicated areas for student poster presentation as well, and a STEM education workshop sponsored by Wright Medical that was open to the public and offered teaching methods and practices for STEM education at all levels from primary school all the way to collegiate and post-collegiate students/employees. Over 100 people attended the event, and feedback was very positive.

## 2. Students and faculty attended

In attendance to our event:

10 University Faculty Members

20 Undergraduate Students

20 Graduate Students

And over 60 Students, Faculty, and Business professionals from the Mid-South Area

### 3. Role in the event

Our organization hosted this event and our members and faculty were giving talks, research presentations, and presenting posters.

## 4. Any awards or recognition or rankings received

The event received Funding Awards from our National Organization and from Local companies Wright Medical and Smith & Nephew.

Our event was covered in the Daily Helmsman, The Memphis Flyer, and High Ground News.

We also awarded three participants with prizes for posters, one of which was a UofM BME Graduate student.

### 5. Pictures of event and people who attended

### All listed people are in order from left to right of image

Dr. Chris Waters, Professor and Vice Chair Department of Physiology, UTHSC College of Medicine. Ph. D. Biomedical Engineering, Vanderbilt University.

Dr. John T. Wilson, Assistant Professor of Chemical & Biomolecular Engineering and Biomedical Engineering (secondary), Vanderbilt University.

Ph.D. Bioengineering, Georgia Institute of Technology

Dr. Warren Haggard, Associate Dean of Research and Graduate Studies, University of Memphis. Ph. D. Biomedical Engineering, University of Alabama at Birmingham

Dr. William Mihalko, J. R. Hyde Chair of Excellence in Biomechanical Engineering at the UTHSC, Orthopaedic Surgeon Campbell Clinic.

Ph. D. University of Rochester, M.D. Medical College of Virginia

Dr. Richard Smith, Associate Professor and Graduate Program Director, Department of Orthopedic Surgery & Biomedical Engineering.

Ph. D. Microbiology & Molecular Cell Sciences, University of Memphis

Academia\_Panel1
Dr. Waters, Dr. Mihalko



Photo Credit by James Tatum

# Academia\_Panel2

Dr. Mihalko, Dr. Wilson, Dr. Haggard



Photo Credit by James Tatum

Academia\_Panel3
Dr. Wilson, Dr. Haggard



Photo Credit by James Tatum

Academia\_Panel4 Dr. Mihalko, Dr. Wilson, Dr. Haggard



Photo Credit by James Tatum

Academia\_Panel5 Rear: Dr. Smith

Front: Dr. Waters, Dr. Mihalko, Dr. Wilson, Dr. Haggard

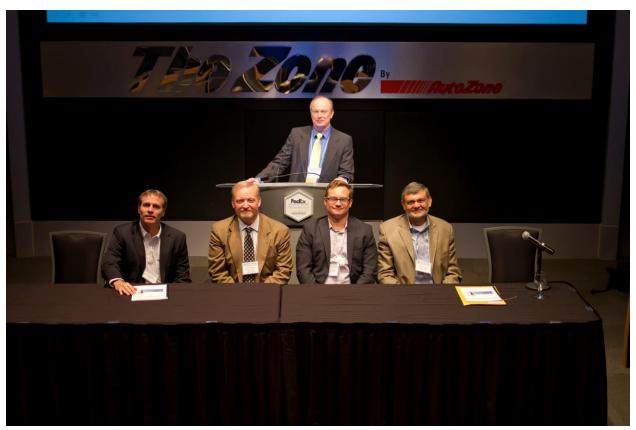


Photo Credit by James Tatum

Mr. Chris Przybyszewski, Executive Vice President & Board Secretary for US Biologic M.A. English, University of Memphis

Dr. Kerem Kalpaksi, Principle R&D Engineer at Medtronic Spine & Biologics Ph. D. Biomedical Engineering, Rice University

Dr. Karen Hasty, George Thomas Wilhelm Endowed Professorship in Orthopaedic Surgery within the UT-Campbell Clinic Department of Orthopaedic Surgery and Biomedical Engineering; Director of Basic Research UTHSC.

Ph. D. Anatomy, UTHSC

Mr. Allan Daisley, President of Zeroto510 Medical Accelerator and Director of Entrepreneurship & Sustainability at Memphis Bioworks Foundation MBA, Duke University

Alternative\_Panel1
Dr. Kalpaksi, Dr. Hasty, Mr. Daisley



Photo Credit by James Tatum

Alternative\_Panel2 Dr. Kalpaksi, Dr. Hasty, Mr. Daisley



Photo Credit by James Tatum

Alternative\_Panel3 Mr. Przybyszewski, Dr. Kalpaksi, Dr. Hasty



Photo Credit by James Tatum

Alternative\_Panel4 Mr. Przybyszewski, Dr. Kalpaksi, Dr. Hasty



Photo Credit by James Tatum

Alternative\_Panel5 Mr. Przybyszewski, Dr. Kalpaksi, Dr. Hasty



Photo Credit by James Tatum

Alternative\_Panel6 Mr. Przybyszewski, Dr. Kalpaksi, Dr. Hasty, Mr. Daisley



Photo Credit by James Tatum

Dr. Amy De Jongh-Curry, Professor and Graduate/Undergraduate Coordinator, University of Memphis Department of Biomedical Engineering.

Ph. D. Biomedical Engineering, University of Memphis

Dr. Ashley Parker, Research and Development Engineer at Microport Orthopedics.

Ph. D. Biomedical Engineering, University of Memphis

Ms. Lauralan Terrill-Grisoni, Vice President Reconstruction-Global Knees at Smith & Nephew

Ms. Mary Anthony, Senior Program Director, Global PLM, Advanced Surgical Devices Division at Smith & Nephew

Dr. Jessica Amber Jennings, Assistant Professor University of Memphis

Ph. D. Biomedical Engineering, University of Alabama at Birmingham

Dr. Esra Roan, Professor, University of Memphis Department of Biomedical Engineering

Ph. D. Mechanical Engineering, University of Cincinnati

Women\_Panel1

Ms. Anthony, Ms. Terrill-Grisoni, Dr. Jennings, Dr. Curry, Dr. Parker



Photo Credit by James Tatum

Women\_Panel2 Rear: Dr. Roan

Front: Ms. Mary Anthony, Ms. Lauralan Terrill-Grisoni, Dr. Jennings, Dr. Curry, Dr. Ashley Parker



Photo Credit by James Tatum

 $Front\_Desk$ 

Mr. Drew Hall, Biomedical Engineering Graduate Student, University of Memphis

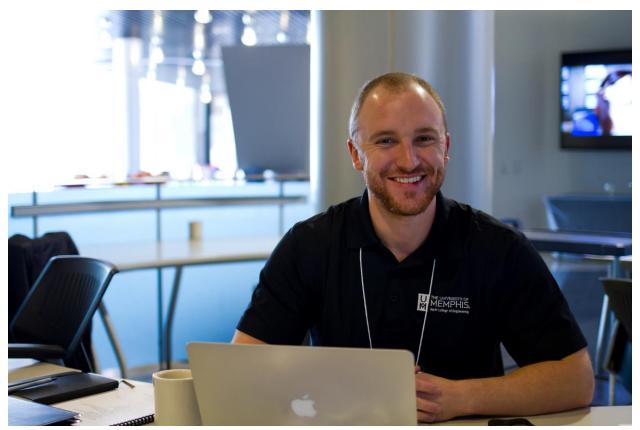


Photo Credit James Tatum

STEM\_Education

Topher Gehrmann, Biomedical Engineering Graduate Student, University of Memphis



Photo Credit James Tatum

Memphis\_Poster\_Winner

Joel Berretta, Biomedical Engineering Graduate Student, University of Memphis Poster Title: Chitosan Paste as Local Delivery Device to Lower Diffusion Distance of Antibiotics.

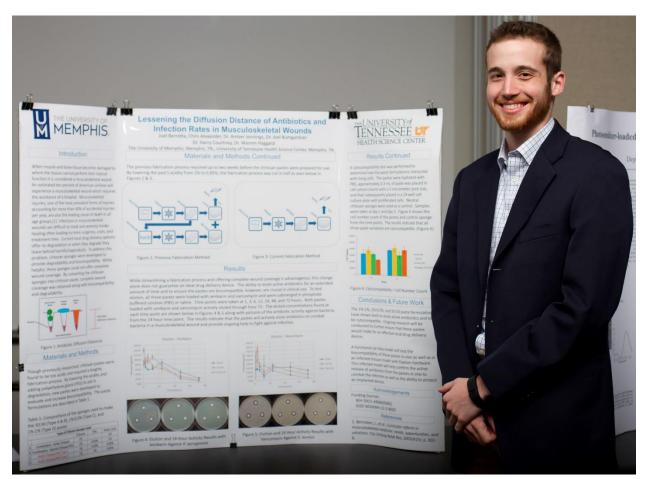


Photo Credit James Tatum

St\_Louis\_Poster\_Winner

Nick Temofeew, Biomedical Engineering Graduate Student, St. Louis University Poster Title: Utilizing Poloxamer 407 As A Nucleus Pulposus Regeneration Scaffold.

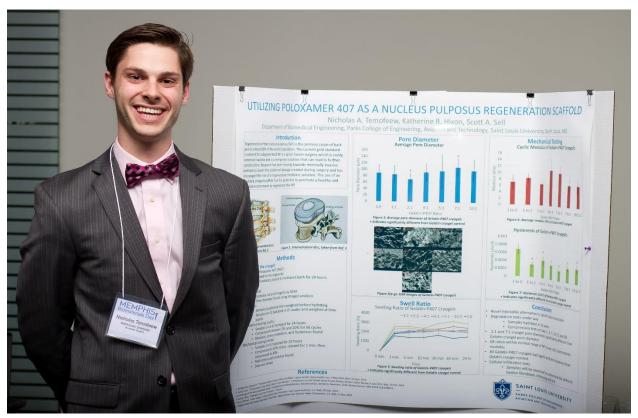


Photo Credit James Tatum

Vanderbilt\_Poster\_Winner

Brian Evans, Biomedical Engineering Post-Doctoral Fellow, Vanderbilt University
Poster Title: A Novel Platform Technology for Cytosolic Peptide Delivery with Endosomolytic Nano-Polyplexes Applied to Vascular Graft Intimal Hyperplasia.

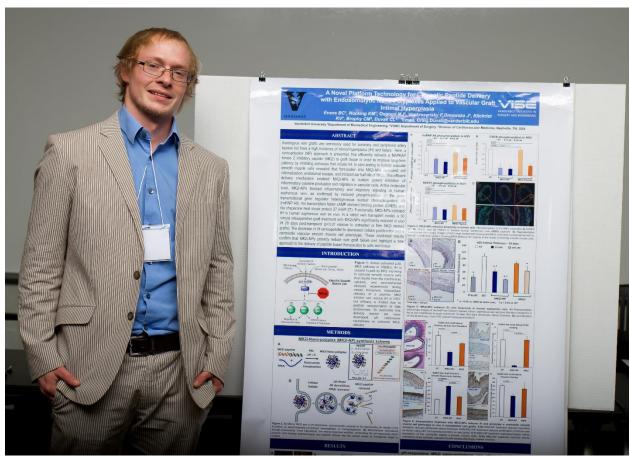


Photo Credit James Tatum

Student\_Presentation1 & Student\_Presentation2





Mike Harris, Biomedical Engineering Graduate Student, University of Memphis Presentation Title: Characterization of the release of cis-2-decenoic acid and model antibiotic from phosphatidylcholine coatings.

Photo Credit Topher Gehrmann

6. How you think the event attendance benefited BMES/SFB and promotes Herff College of Engineering goals

After filling up the FedEx Institute of Technology with students and professionals from across the Mid-South we were pleased to see so many people networking and making connections here in Memphis, Tennessee. Our STEM education activity helped provide classroom support for Universities from Nashville to Arkansas hoping to increase biomaterials education. We also brought collaborations between Nashville and Memphis closer while expanding our collaborations up into St. Louis Missouri. It's so exciting to see so many companies and organizations work together to help increase the reach of opportunities our great city can provide and we hope to continue seeing these conferences occur throughout the coming years.

Overall our students were able to create strong contacts with local companies and surrounding schools which can help increase the amount of graduating students who obtain local jobs within our club and the school of engineering as well as advertising our university's programs to other schools and companies. Overall we believe this event not only helped our student's on a personal level but also helped put forward a great image for the Herff College of Engineering as an active member of the community and sponsor of great networking opportunities for our students.