

Biomedical Engineering Society (BMES)

2017

Number of presentations = **38**

Boldfaced names represent Bioengineering undergraduate students

Medial tibial plateau cartilage compression during a closed-chain flexion task
Wiltman S, **Bottorff E**, Chambers A

Development of 3D Printed, Low Cost Thumb Prosthetic
Bray TJ, Spiess AM, Schull J, Meetze S

Reaction times to intracortical microstimulation in a person with tetraplegia are similar to those of peripheral tactile and visual stimuli in able-bodied subjects
Brueggman G, Weiss J, Gaunt R, Collinger J

Effects of Aging on Liver Extracellular Matrix Structural Proteins
Burger B, **Hartman A**, Stahl E

The effect of oxygen on nitrite reduction to nitric oxide by the mitochondrial molybdopterin enzyme mARC2
Cecco EM, Watkins CE, Gladwin MT

Downregulation of CXCR-1 and CXCR-2 on Human Neutrophils in Extracorporeal Recirculation Through Fibers with Immobilized IL-8
De BN, Malkin AD, Federspiel WJ, Kellum JA, Singbartl K

Micro-BLIP: A New Tool for Instrumentation Education
Donovan JD, **Snyder OS**, Stetten GS

Spatial Memory Maintenance in Dorsal Premotor Cortex
Fleming NK, Pavlovsky NP, Batista AP

Modulating inflammation through cartilage-derived extracellular matrix for potential treatments of cartilage disease
Fritch M, Tuan R, Lin H, Shen H

Complex 3D tissue assembly using flat high-density cell sheets
Goller SE, Balakrishna UL, Davidson LA

Nanomolar Drag Reducing Polymers (DRPs) Reduce Near-wall Margination of Rigid RBCs in Microchannels: A Potential Therapy for Sickle Cell Disease
Dan Crompton, **Shushma Gudla**, Marina V. Kameneva

Effect of PNS-ECM hydrogel on functional recovery after peripheral nerve injury

Hartogs R, Heisler C, LaBelle K, Prest T, Brown B

Effect Of PNS-ECM Hydrogel on Sciatic Functional Index After Peripheral Nerve Injury

Heisler CN, Hartogs R, LaBelle K, Prest T, Brown B

Optical Control of Escherichia Coli Chemotaxis using the Photoswitchable Protein Dronpa

Vivian Hu, William McFadden, Ian Carleton, Dorsin Chang, Gabrielle Gannon, Adam Butchy, Jason Lohmueller, Natasa Miskov-Zivanov, Cheryl Telmer, Sanjeev Shroff, and Alex Deiters

Whole body cardiovascular modeling for ECMO training simulator

Huang L, Shroff SG

Biocompatibility and Functionality Assessment of a Novel Nitinol Tongue Prosthetic Device to Treat Dysphagia

Kern JK, Chen YC, Chun YJC

Effect of a peripheral nerve-specific extracellular matrix hydrogel on functional and sensory recovery from traumatic peripheral nerve injuries

LaBelle KE, Heisler C, Hartogs R, Prest T, Brown B

Assessing Intestinal Organoids Drug Response in A Well-Defined Synthetic Basement Membrane Microenvironment

Lee K, Lampejo A, Hernandez-Gordillo V, Griffith L

Four-Point Fortune-Teller-Inspired Origami Grasper for Increased Dexterity and Less Tissue Damage in Minimally Invasive Surgery

Liu H, Yeow BS, Ren H

EMS Backboard Pad: An Inflatable Spinal Support System

Lohss M., Freedman N., Samosky J.

Evaluation of Segmentation Performance with 3T and 7T Magnetic Resonance Imaging using FreeSurfer

McKeon S, Rangarajan A, Wu M, Santini T, Ibrahim T, Lopez O, Aizenstein H

Preliminary development of a low-cost flexible endoscope for robotic minimally invasive nasopharyngoscopy

Meadows JM, Yeow BS, Ren H

Validation of an osteochondral bioreactor for in vitro drug screening

Overholt K, Piroso A, Tuan RS, Gottardi R

Rest-State Cortical Network Differences Associated with First-Episode Schizophrenia-Spectrum Psychosis

Phalen H, Coffman B, Salisbury D, Sejdic E

Comparative analysis of the destabilizing effects of anterior versus posterior releases on the thoracolumbar and lumbar spine

Rynearson B, **Ramanathan R**, Allen M, Vaudreuil NJ, Bell KM, Bosch P

Correction of Gibbs Ringing Artifact in DW-MRI with Biomimetic Brain Phantom as Ground Truth
Rohde KR

In vitro characterization of melatonin-loaded conducting polymer coatings for neural electrodes
Schally E, Golabchi A, Woeppel K, Taylor IM, Cui XT

Interactions between waveform shape and visuomotor response properties in prefrontal cortex
Scott JA, Khanna SB, Smith MA

Assessment of Patient Hemodynamics Pre-Left Ventricle Assist Device Implant to Determine Chance of Right Ventricular Failure

Shwetar YJ, Bachman TN, Simon MA

Stimulation of Elastic Fiber Proteins by Mesenchymal Stem Cell-Derived Factors

Sides R, Sugiyama K, Ramaswamy AK, Vorp DA, Yanagisawa H, Weinbaum J

Investigating Wheelchair Seating Parameters and Their Effect on Ramp Propulsion

Sivaprakasam A, Bass S, Kamaraj D, Koontz A

Assessment of Human Stem Cell Retention and Host Cell Invasion in an Implanted Seeded Tubular Scaffold

Snyder AM, Lorentz KL, Haskett DG, Saleh K, D'Amore AN, Wagner WR, Weinbaum JS, Vorp DA

Texture Simulation with One Degree of Freedom Normal to the Surface using a Loudspeaker

Snyder O, Stetten G, Klatzky R

In vivo Muscle Architecture Data for Musculoskeletal Models of the Human Leg

Felipe Suntaxi, James Charles, William Anderst

Optimizing Geometry of a 64-channel RF Head Coil

Neilesh Vinjamuri, Tales Santini, Sossena Wood, and Tamer Ibrahim

Effect of gleevec (imatinib mesylate) on bladder contractions in neonatal and adult rats

Wenger LR, Garcia GM, Daugherty SL, de Groat WC

The Effects of an Osteoarthritis Unloader Brace on Knee Joint Space During Gait
Yang S, Nagai K, Anderst W

Collagen fiber orientation mapping with Fourier ptychography polarized light microscopy
Zhang E, Yang B, Sigal I