

Biomedical Engineering Society (BMES)

2020

Number of presentations = **37**

Boldfaced names represent Bioengineering undergraduate students

Correlation Between the Locations of Shoe Wear Region and Center of The Contact Region at Peak Friction

Bharthi R, Sukinik J, Hemler S, Beschorner K

Creation of A Physical Analog of Pierced Tissue Behavior for Instructional Use

Blain KM, Davidson LA

Differences in Friction Performance Between New and Worn Shoes

Cook A, Hemler S, Sundaram V, Chanda A, Beschorner K

Discrete Period Quadrature for Time-Frequency Analysis of Nystagmus Eye Motion

Foust JS, Stetten G

Portable Manufacturing of SARS-CoV-2 Protein-Based Therapeutics

Geisler HC, Wei TI, Behrens MR, Ruder W

Utilization of A 3d Printed Peristaltic Pump to Model Physiological Conditions for Pulmonary Hypertension-Related Developments in An Organ-On-A-Chip System

Grunblatt S, Fuller H, Behrens M, Ruder W

Fingersight: Vibrotactile Ring for Guidance of Hand-Held Tools by Visually Impaired

Hu Y, Canady J, Klatzky R, Stetten G

Immunomodulators In Endometriosis Pathogenesis and Progression: A Literature Review

Jafarah H, Chickanosky I, Nolfi A, Brown B

Comparison of Coating Methods of Polyelectrolyte Coated Mesh for Uterine Prolapse Patients

Jafarah H, Liang Z, Nolfi A, Brown B

Microfluidic Control of Evolutionary Bacteria-Guided Robots

Jain P, Behrens M, Ruder W

Current Challenges in the Clinical Treatment of Anatomically Complex Peripheral Vascular Disease

Jeevan S, Pacella J, Vande Geest JP

Utilizing Hierarchical Task Analysis to Devise Appropriate Lesson Plans for Novice Instructors
Johnston I, Williams D, Griffin S, Beschorner K

Testing the Compressive Stiffness of a Prototype Endovascular Device
Jones L, Vande Geest JP

Development of A Modular In Vitro AAA Perfusion Phantom to Evaluate in Situ Fenestration Of Stent Grafts
Lagerman NP, Chung TK, Eslami MH, Vorp DA

Fluid Flow Simulation of Multi-tissue, Joint-mimicking Microphysiological Systems
Li E, Li Z, Ronczka R, Li H

Extent of Dedifferentiation as a Potential Biomarker for Alzheimer's Disease
Li J, **Mountz E**, Mizuno A, Karim H, Aizenstein H

Analyzing A 3d-Printed Peristaltic Pump for Use in Antibiotic Efficacy Studies
Lickert EL, Behrens MB, Ruder W

Longitudinal Changes in Adjacent Segment Disc Deformation After Cervical Spine Fusion
Martinez AC, LeVasseur C, Pitcairn S, Shaw JD, Donaldson WF, Lee JY, Anderst W

Bioinformatic Analysis of Fibroblast-Mediated Therapy Resistance in HER2+ Breast Cancer
McDonald J, Zervantonakis I

Inertia-Based Prosthetic Tails: Balance Improvement, Equation Development, and Proof-Of-Concept
Mitrik NM, **Roy ZA**, Delazio AD, Brienza DB, Fiedler GF

Extent of Dedifferentiation as a Potential Biomarker for Alzheimer's Disease
Li J, **Mountz EJ**, Aizenstein HJ, Mizuno A, Karim HT

Long-Term Culture of Islet-On-A-Chip
Pietz K, Wiegand C, K R, Banerjee I

Saliency Processing Across Clozapine Treatment for Refractory Schizophrenia Patients
Reimenschneider J, Blazer A, Sarpal D

Polydimethylsiloxane (PDMS) Capsules as a Novel Culturing Method
Seth R, Niepa THR, Davidson SL, Manimaran NH, Usman H

Mass Customization Workflow Development for Facially-Generated 3d Printable Face Masks
Shapiro SR

Adapting Extracorporeal Membrane Oxygenation Technology to Model Carbon Dioxide Removal from Ocean Water

Snodgrass C, Hornbostel K, Rivero J, Lieber A

User-Specific Factors that Predict Ladder Handrail Use

Stuckey J, Tszhovkin M, Pliner E, Beschorner K, Sturnieks D, Lord S

Relationship Between Center of Pressure and Contact Region During Gait: Implications for Shoe Wear and Slipping Risk

Sukinik J, Bharthi R, Hemler S, Beschorner K

Image-Based Analysis of Cancer Cell Proliferation in Resistance To HER2-Targeted Therapy

Sweeney A, Zervantonakis I

Optics-Based Microfluidic Manipulation for Precise, Minimally Invasive, and Microscale Drug Delivery

Swist ER, Fuller HC, Behrens MR, Ruder W

Relationship Between Handrail Use and Balance Control and Sway during a Ladder Work Task

Tszhovkin MT, Stuckey JS, Pliner E, Beschorner K, Lord S, Sturnieks D

Deciphering the Combinatorial Role of Histone Modifications in Site-Specific Chromatin Environments

Tuli S, Uttam S

Assessment of Luminal Fillers in Nerve Guidance Conduits for Promoting Regeneration Following Peripheral Nerve Injury

Vinski C, Meder T, Brown B

The Effect of Proprioceptive Feedback on BCI Control

Weber JC, Weber DJ, Monica FL

Designing Accessibility Devices for People with Limited Mobility with an Emphasis on Manufacturing Optimization and Materials Research

Whittaker M, Gandhi R, Zito J, O'Malley K, Gandhi R

Development of a Novel Mathematical Model to Predict 2D Extrusion Bioprinting Resolution

Wuenschel A, Poklar M, Krishnamurthy R, **Pietz K**, Banerjee I

A Low Cost, Second Generation Biotelemetry Device for Manatee Tracking

Xu K, Speakman J, Gaspard J, Gartner M