

## Science 20XX

2018

Number of presentations = 30

**Boldfaced** names represent Bioengineering undergraduate students

**Issam Abushaban**, Megan Routzong, Steven D. Abramowitch  
*Reevaluating The Calculation of Fetal Head Molding in Finite Element Models of The Second Stage of Labor*

**Siddharth Balakrishnan**, David Langerman, Evan Gretok, Alan D. George  
*Deep Learning for Hyperspectral Image (Hsi) Classification on Embedded Platforms*

**Gordon Bryson**, Youngjae Chun, Philip Carullo  
*Evaluating Occlusion Success of Esophoclude Prototypes in Comparison to Diameter and Radial Force*

**Kristen Byrd**, Benjamin Schilling, **Jocelyn Baker**, **Malik Snowden**, Kacey Marra  
*Optimization Of Decellularization of Skeletal Muscle Via Infusion for Muscle Retention Following Peripheral Nerve Injury*

**Janet Canady**, Shantanu Sapute, George Stetten, Roberta Klatzky  
*Validating Fingersight with A 3D Infrared Tracking System*

**Teresa Chambers**, David Swigon, Gilles Clermont  
*Early-Stage Sepsis in Pigs as a Basis for Mathematical Modeling*

**Aidan Dadey**, Dave Gau, Partha Roy  
*Pharmacological Inhibition of Myocardin-Related Transcription Factor as a Novel Strategy to Inhibit Growth and Migration of Triple-Negative Breast Cancer Cells*

**Danielle Danucalov**, Ricardo Londono, Megan Hudnall, and Thomas Lozito  
*Lizard Versus Mouse Proliferation of Neural Stem Cells in The Secondary Neural Tube*

**Christian DeMoya**, Ricardo Londono, Megan Hudnall, Thomas Lozito  
*Biochemical Inhibition Leads to Defective Tail Regeneration in Lizards*

**Katherine Dunkelberger**, Liza Bruk, Morgan V. Fedorchak  
*Controlled Release Optimization of Ceftriaxone And N-Acetyl Cysteine for Transtympanic Delivery*

**Zachary Fritts**, Sarit Sivan, Marcela V. Karpuj  
*A Qpcr Based Assay for Detecting Mycoplasma Contamination in Cell Lines*

**Nicholas Gabriel, Rahul Ramanathan,** Kevin Bell, Nam Vo, Gwendolyn Sowa  
*Development Of a High Throughput Bioreactor Compression Chamber for Rodent Mechanobiology*

**Hannah Geisler,** Alexis Nolfi, Aimon Iftikhar, Bryan Brown  
*Angiogenic Response to Il-4 Eluting Coatings in Mesh Tissue Explants*

**Lauren Grice,** Harman Ghuman, Franziska Nietzsche, Madeline Gerwig, Jeffrey Moorhead,  
**Nikhita Perry,** Alex Poplawsky, Brendon Wahlberg, Fabrisia Ambrosio, and Michel Modo  
*Diffusion Tensor Image Analysis Reveals Improved Microstructural Integrity in Stroke Damaged Brains Treated with Either Neural Stem Cell or Physical Therapy*

**Jack Hastings,** Neil Gildener-Leapman, and Youngjae Chun  
*In Vitro Viability Testing of Ph Sensor Incorporation in Tongue Prosthetic Assist Device for Treating Dysphagia*

**Amy Hill**  
*Investigation Of Multiple Strategies in Modeling an Expandable Stent by Finite Element Method*

A. Akbar, **D. L. Jacobs,** P. Gonzalez, G. Coyan, L. S. Filho, M. Solazzo, M. Luketich, R. Hoff, W. R. Wagner, and Antonio D'Amore  
*Three Layer Biomimetic Small Diameter Tissue Engineered Vascular Graft*

**Claire Kraft,** Michael R. Behrens, Warren C. Ruder  
*A Mechatronic System for The Magnetic Manipulation of Biomedical Specimens*

**Conrad Li,** Mobarakol Islam, Hongliang Ren, Nicolas Kon Kam King  
*3D Convolutional Neural Networks for Glioma Prognosis*

**Ashley Martier,** Tom Lozito, Ricardo Londono, **Sean Tighe, Danielle Danucalov**  
*Why Can't Mice Regenerate Like Lizards?*

**Jacob Meadows,** Elisabeth Salisbury, Mark Gartner  
*System To Record Therapeutic Delivery Window of Stochastic Vibrotactile Stimulations in Infants with Neonatal Abstinence Syndrome*

**Oreoluwa Odeniyi,** Jonathan Vande Geest  
*Accuracy Of Two-Photon Polymerization with Varying Objectives and Power*

**Nikhita Perry,** Harman Ghuman, Franziska Nietzsche, Madeline Gerwig, Jeffrey Moorhead,  
**Lauren Grice,** Alex Poplawsky, Brendon Wahlberg, Fabrisia Ambrosio, Michel Modo  
*Combined Neural Stem Cells and Physical Therapy Improve Somatosensory Cortex Activity After Stroke*

**Mateus Pinho,** Alessandro Piroso, Rocky S. Tuan, Peter G. Alexander

*Human in Vitro Organotypic Culture Model (Ocm) Of Limb Chondrogenesis for Predictive Toxicology*

**Rahul Ramanathan**, Nam Vo, Gwendolyn Sowa

*Metformin Suppresses Pro-Inflammatory and Catabolic Gene Expression in Rat Annulus Fibrosus*

**Sreyas Ravi**, He Shen, Xinyu Li, Hang Lin

*Reversal Of Chondrocyte Aging to Augment Cartilage Regeneration in The Body*

**Sean Tighe**, Ricardo Londono, Thomas Lozito

*Comparison Of Phagocytic Capability of Macrophages Derived from A. Carolinensis And Super-Healing Mice*

**Kelsey Toplak**, Kimberly Kubistek, Kelly Fill, Sheryl Rosen, Mark Gartner

*Infant Feed Thickening Characterization at Children'S Hospital of Pittsburgh*

**Claire Tushak**, Danial Sharifi Kia, Evan Benza, Kang Kim, Marc Simon

*Analyzing Right Ventricular Response to Sacubitril/Valsartan in Pulmonary Hypertension*

**Timothy Wroge**, Mobarakol Islam, Xiao Xiao, Hongliang Ren

*Reinforcement Learning Motion Control Paradigm for Minimally Invasive Robotic Surgery*