

Bioengineering Day

2019

Number of presentations = **19**

Boldfaced names represent Bioengineering undergraduate students

Impact of an Information Processing Task on Balance in Young Adults with Autism Spectrum Disorder, A Preliminary Study

Anna Bailes, **Patrick Bohse**, Jana M. Iverson, Jenna Trout, Patrick J. Sparto, and Rakié Cham

Differentiation of hPSCs into Islet-mimetic Cells: Encapsulation Versus Suspension Culturing
Kevin Pietz, Connor Wiegand, and Ipsita Banerjee

Development of Cost-Effective 3D Printed Patient-Specific Hip Models as Surgical Guides
Grace Hobayan, April Krivoniak, and Anish Ghodadra

Assessment of Ascending Aortic Wall Stresses for Non-Dissected Patients with Bicuspid Aortic Valve and Dissected Patients with Tricuspid Aortic Valve

Sreyas Ravi, David A. Vorp, and Spandan Maiti

Biocompatibility of Soft Implantable Electrodes for Intramuscular Stimulation

Azante Griffith, X. Sally Zheng, and X. Tracy Cui

Stochastic Optical Reconstruction Microscopy: Image Quality Optimization

Shivani Tuli, Yang Liu, and Jianquan Xu

Mapping Changes in Vasculature Structure after Microelectrode Implantation with Two-Photon Imaging

Kaylene Stocking, Steven Wellman, and Takashi D.Y. Kozai

One-Hand Zip Assist

Katherine Poduska, **Andrea Hartman**, **Caitlin Lucas**, **Daniel Fulmer**, **Nicholas Anastasi**, and Kevin Markiewicz

Nasal Cannula Securement Device

Nowa Bronner, **Edward-James Gardner**, **Daniel Jacobs**, **Rajat Lahiri**, **Ian Moran**, **Lauren Williams**, Parker Landis, Madeline Reiche, and Sun Young Bang

Expandable Cannula Sheath for Extracorporeal Membrane Oxygenation

Nicholas Gabriel, **Lea Wenger**, **Lacey Kostishack**, **Abigail Snyder**, **Courtney Vu**, and **Deepika Sarma**

Quantifying Postpartum Blood Volume Loss

Ellen Martin, **Amy Hill**, **Malik Snowden**, **Lisa He**, and **Samantha Espos**

OxyDas: Alert System for Nasal Cannula Dislodgement

Angela Cinaglia, Jake Donovan, Xinyu Li, Eleni Parke, Kaylene Stocking, Soumya Vhasure, Kaleigh Mellett, Ensar Tota, and Jennifer Kloesz

IV Management System

Eric Cecco, John Driggers, Alexandra Metelow, Benjamin Roadarmel, and David Saperstein

Patient Migration Prevention: Helping Nurses and Patients

Danielle Charbonneau, Farah Khan, Max Baxter, Brian Coyne, and Anna Dzuricky

Security Sleeve: Modified ICU Mitt Restraints

Tim Bowers, Aidan Dadey, Danielle Danucalov, Troy Eismann, Ethan Paules, and Daniel Sokolowski

Redesigning the Pelvic Exam Wedge

Katie Bruce, Samantha Rowen, Jessica Sider, Victoria Smith, and Sarah Tolaymat

Design of an Automated Arterial Line Leveling System for ICU Settings

Kalon Overholt, Shane McKeon, Anthony Pasnello, Minseok Koo, Sheldon Lin, and Aaron Salz

PMA Stimulation of Glial Cells via Thiol Nanoparticle Surface Modifications

Sneha Jeevan, Kevin M. Woepfel, and X. Tracy Cui

Validity of Existing Energy Expenditure Prediction Algorithms using Wearable Devices for wheelchair user

Yousif Shwetar, Akhila Veerubhotla, and Dan Ding