

Bioengineering Day

2020

Number of presentations = 19

Boldfaced names represent Bioengineering undergraduate students

Self-LVAD Patient Doppler Blood Pressure Monitoring Device

Nikita Patel, Alexandra Tompkins, Grace Hobayan, and Patrick Iyasele

Depth-Perception Module with Direct Feedback for Laparoscopic Skills Training

Hannah Liu, Judy Liang, Muyun Zhao, and Nithya Narayanan

Inspirometer: Using Bubbles to Improve Pediatric Care Outcome

Gordon Bryson, Larissa Fordyce, Natasha Gilbert, Claire Kraft, Valerie O'Loughlin, and Grace Varughese

Nurse-Assistive Patient Turning Device to Monitor Bedsores

Christine Heisler, Patrick Bohse, Haiden McDonald, Julie Constantinescu, and Jordan Cobb

Reinforced Local Anesthetic Needle Sleeve

Pegah Zarandi, Pavitra Velan, Jack Hastings, Paul Movizzo, and Richard Brigandi

Head-Drop Support Device for ALS Patients

Natalie Greenlee, Jocelyn Hawk, Katherine Rohde, Matt Saich, and Danielle Stark

Independent Transfer Tool for Wheelchair-Bound Patients

Haarika Chalasani, Anish Puligilla, Hannah Schmidt, Yousif Shwetar, McKenzie Sicke, and Will Kranz

unIVersal: Improving Patient Mobility Post-Surgery

Michael Clancy, Srujan Dadi, Shannon Kudlaweic, Nathan Lingenfelter, Xhoni Pashaj, Vatsal Patel, and Susan Walborn

Patient Specific Endovascular Simulator

Liam Martin, Elliott Hammersley, Maddie Johnson, Cassie Smith, and Sara Kenes

Sharps Disposal Device for Under-Resourced Communities

Nicole Charache, **Emma Chen, Katherine Dunkelberger, Kristopher Keppel, Maxwell Lohss, and Danesh Thirukumaran**

Estimating Blood Loss During Surgery Using Optical Probing

Zachary Fritts, Conrad Li, Aaron McVaugh, Megha Murthy, and Matthew Rosenblatt

Neonatal Warmer for Transportation in Developing Countries

Ashley Martier, Vivian Hu, Meredith Lie-Atjam, Jocelyn Baker, and Liang Xue

BendRite: Surgical Suction Tube Bender

Janet Canady, Lauren Grice, Tingjun Hao, Nishita Muppidi, Jessica Guan, Kaitlin Perugini, and Carl Snyderman

DAPHNE: Dynamic & Accessible Postpartum Hemorrhage Education

Tyler Bray, Jessica Brown, Marlo Garrison, Madeline Hobbs, Ally McDonald, Jacob Meadows

Biaxial Mechanical Testing of Interweaving and Non-Interweaving Fibers

Anish Puligilla, Yi Hua, and Ian Sigal

Single-User Universal Navigator for Inside-Out Meniscus Repair

Rey Ravi, Peter Gibson, Michael Kassabian, Shumeng Yang, and Timothy Snyder

Muscle Function as An Index to Measure Peripheral Nerve Regeneration Induced By An Extracellular Matrix Based Hydrogel

Valeria Tupac Yupanqui, Tyler Meder, Lucile Marchal, Travis Prest, Clint Skillen, and Bryan Brown

Tumor-Derived Exosomes from HCT116 Human Colorectal Cells Contain SQSTM-1 And Promote A Tolerogenic Response In Co-Cultured Dendritic Cells

Rosh Bharthi, Carolina Gorgulho, Nils Ludwig, Theresa Whiteside, and Michael Lotze

Mechanical Characterization of Silk Derived Vascular Grafts for Human Arterial Implantation

Patrick Iyasele, Eoghan Cunnane, Katherine Lorentz, Justin Weinbaum, and David Vorp