Biomedical Engineering

Salisbury Labs Kinnicutt Hall Room 115

9:05am
Encapsulation of Lithium in a Nanocarrier for Use During Pregnancy and Lactation
Cameron Carlin, Kayla Condon, Sarah Ossing, Violet Smiarowski
Advisors: Diana Alatalo, Christina Bailey-Hytholt

9:25am
Peak Stress Reduction in Below Knee Amputations
Riley Bent, Will Leland, Gabriella Rios, Priyanka Sunil
Advisor: Karen Troy

9:45am
Flow System to Study the Role of Vascular Endothelial Glycocalyx in Transendothelial Migration of Cancer Cells in-vitro
Helga Becka, Kerry Bushway, Samantha Cocchiaro, Jacob Elliott
Advisor: Solomon Mensah

10:15am
Design of a 3D Engineered Wound Healing Model of Ehlers-Danlos Syndrome
Madison Donahue, Maya Evohr, Morgan Foltz, Abigail Holmes, Spencer Whitford
Advisor: George Pins

10:35am
Automation of an Accurate, Auditory-Based Blood Pressure Monitor
Amirthavarshini Babu, Isabelle Benson-Clarke, Benjamin Breslov, Juliana Prisco, Benjamin Wheet
Advisors: Dirk Albrecht, Pradeep Radhakrishnan

10:55am
A Baby Bottle Device to Capture Intraoral Images of the Maxillary Palate
Kenza Bezzat, Jacob McDonald, Nicolas Loycano, Samantha Turner
Advisors: Diana Alatalo, Haichong Zhang

Salisbury Labs Room 104

9:05am
Ultrasound Guided Needle Insertion Device
Dhruv Chheda, Mikkel Hersum, Jena Taubert
Advisor: Haichong Zhang

9:25am
StomaSense: An Innovative Solution to Preventing Leaks in Ostomy Bags
Nick Coviello, Martin Fortou, Sophia Mularoni, Theresa Rosato
Advisors: Dirk Albrecht, Solomon Mensah

9:45am
Design of a Perfusable Vascularized Leaf Scaffold Housing Device
Codey Battista, Nishan Grandhi, Aidan Kaufman, Ariel Shirzadi
Advisor: George Pins

10:15am
Microfluidic Chip for Modeling Peritoneal Dialysis Ultrafiltration Failure
Sydney Breen, Roman Bolshakov, Isabella Mastriani, Antone Mello
Advisor: Catherine Whittington

10:35am
The KLAA: A Rescue Device for Diaphoretic EKG Acquisition
Lauren Averka, Kellie Bushe, Abigail Gallagher, Abbigail Poland
Advisor: Brenton Faber

10:55am
The Design of a Microfluidic Device for Measuring the Mechanical Properties of Lactating Mammary Cells
Brenna Hadad, Stephanie Low
Advisors: Kristen Billiar, Diana Alatalo

Salisbury Labs Room 105

9:05am

A Neuromorphic Model of the Peripheral Auditory System Implemented in MATLAB
Austin Aguirre, Jack Brazer, Hunter Lassard, Aidan Pereira
Advisor: Adam Lammert

9:25am

Cerebrospinal Fluid Pressure Gradient Model of the Central Nervous System
Louis Desy, Alexis Graziano, Samantha Robison, Isabella Sheeran
Advisor: Raymond Page

9:45am

Enhancing Medication Accessibility: Designing a Child Resistant Pill Bottle Cap for Diverse Users
Emma Bass, Joseph Connor Beane, Jennifer Mills, Nicholas Uy
Advisor: Zoe Reidinger

10:15am

Esophageal Variceal Hemorrhage Rescue Device: Var-Ex Tube
Lillian Dupuis, Guinevere Ferreira, Molly Mahoney, Sarah Percifull
Advisors: Solomon Mensah, Brenton Faber

10:35am

Developing an Optimal Procedure to Evaluate the Effects of Substrate Stiffness and Temperature on Lactating Mammary Epithelial Cells
Leithsa Dimanche, Jazmyn Ewing, Caroline Major, Taina Quinones
Advisor: Diana Alatalo

11:00am

Expanding the Functional Capabilities of the Tongue Prosthesis
Li DeWitt, Deborah Diniz, Avery Macomber, Mylla Santana
Advisors: Dirk Albrecht, Pradeep Radhakrishnana

Salisbury Labs Room 305

9:05am

Developing an in vitro Model to Modulate Molecular Transport in Uterine Myometrial Hypoxia
Eleanor Finberg, Tiffany Foote, Livia Hernon, Anna Kelly, Emily Strojny
Advisor: Catherine Whittington

9:25am

Identifying Magnitudes of Accelerative and Rotational Forces that Impact the Head when Mountain Bike Riding
Christopher Libby, Samuel Ott, Benjamin Pinto Baqueriza
Advisors: Songbai Ji, Benjamin Nephew

9:45am

High Strain Uniaxial Cell Stretching Device
Gabriel Cason, Stuart Elmhurst, Alyssa Morgan, Livia Skende, Angus Zuwallack
Advisor: Kristen Billiar

10:15am

Neuroprosthetic sEMG Device for Video Game Control
Francis Coghlan, Drew Silvernail
Advisors: Taimoor Afzal, Adam Lammert

10:35am

Leap into Learning: A Biomechanics Tool for Interactive Education in Jumping Mechanics
Tuvy Do, Amy Ngo, Chris Nguyen, Daniela Galvan Sanchez, Cara Yorina
Advisor: Karen Troy