CEMB Summer Research Experience for Undergraduates (REU) Symposium
August 2, 2018
University of Pennsylvania
Singh Center for Nanotechnology
Glandt Forum (3rd floor)

9 – 9:30  Continental Breakfast

9:30  Welcome
Rebecca Wells, MD
CEMB Director of Education
Vivek Shenoy, PhD
CEMB Director

Research Talks- Session 1

9:45  Sarah St. Pierre, Worcester Polytechnic Institute
Title: Developing an in vitro System Mimicking the Facet Capsular Ligament: Effects of Fibroblasts & Collagen Alignment on Collagen Gel Mechanics
Host: Winkelstein Lab

10:00  Whitney Schroeder, Clemson University
Title: Force Detecting FRET Sensors in Cardiomyoblast Lamina
Host: Prosser Lab

10:15  Deidre Lee, University of the Virgin Islands
Title: Bile duct-on-a chip Device to study Cholangiocyte and Fibroblast interactions in the Peribiliary Extracellular Matrix
Host: Wells Lab
10:30 Zachary Varley, University of Pennsylvania
Title: Kinetic Monte Carlo Model of Cortical Actin Network Polymerization
Host: Shenoy Lab

10:45 Grace Wu, University of Pennsylvania
Title: Modeling Dynamic Actin and Microtubule-Based Cytoskeletal Networks Using Novel Nanofabrication Techniques
Host: Holzbaur Lab

11:00 Jacob Maciel, University of Texas, Rio Grande Valley
Title: Exploring the Role of Vimentin Intermediate Filaments in Cellular Mechanosensation
Host: Janmey Lab

11:15 Amanda Martinez, University of California Merced
Title: Distinct Stiffness Thresholds for ECM Gene Expression
Host: Assoian Lab

11:30 – 11:45 Break

Research Talks- Session 2

11:45 Dominic Demma, University of Illinois
Title: In Situ Stiffness Sensing for Lung Fibrosis-on-a-chip
Host: Huh Lab

12:00 Kiera Yankson, Oakwood University
Title: Biophysical Regulation of Histone Modification and Chromatin Architecture in Mesenchymal Stem Cells
Host: Lakadamyali and Mauck Labs
12:15 Thea Ornstein, University of Maryland College Park
Title: The role of O-GlcNAcylation in YAP nuclear localization with increasing substrate stiffness
Host: Mauck Lab

12:30 Niko DiCaprio, Temple University
Title: Supramolecular Guest-Host Double Network Hydrogel for Modulating Cell Spreading and Focal Adhesion Size
Host: Burdick Lab

12:45 Robert Brosnan, University of Pennsylvania
Title: A Computational Approach to Tumor-Targeting Nanoparticles
Host: Radhakrishnan Lab

1:00 Gabrielle Caponigro, Rutgers University
Title: The Navigation of Dendritic Motor Proteins in an Antiparallel Microtubule Environment
Host: Ostap Lab

1:15 Closing Remarks
Ashley Wallace, PhD
CEMB Diversity and Education Coordinator

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