



# College of Engineering REU Research Symposium



Coverdell Center for Biomedical and Health Sciences Auditorium  
Wednesday, July 27<sup>th</sup>, 2016

8:00 am	<b>Sign in</b>
8:15 am	<b>Welcome: Dean Donald J. Leo, College of Engineering</b>
8:30 am	<b>Colleen O'Connor</b> <b>Project:</b> Characterization of Nanoparticle-Membrane Interactions through Cell Membrane Model Platform <b>Mentor:</b> Dr. Eric Freeman
8:45 am	<b>Morgan DaSilva</b> <b>Project:</b> Hemodynamic Quantification with Magnetohydrodynamic Voltages through a Flow Phantom <b>Mentor:</b> Dr. Zion Tse
9:00 am	<b>Courtney Jones</b> <b>Project:</b> Microfluidic Enrichment of Breast Cancer Circulating Tumor Cells based on Ferrohydrodynamics <b>Mentor:</b> Dr. Leidong Mao
9:15 am	<b>Lauren Mehanna</b> <b>Project:</b> Synthesis of Fe <sub>3</sub> O <sub>4</sub> Nanoparticles and Quantification of Nanoparticle Uptake in U87MG-EGFP Glioma Cells and Primary Astrocytes <b>Mentor:</b> Dr. Lohitash Karumbaiah
9:30 am	<b>Kylie Balotin</b> <b>Project:</b> Live Cell Tracking of U87MG-EGFP Glioma Cells Encapsulated in 3D Biomimetic Hydrogel Scaffolds <b>Mentor:</b> Dr. Lohitash Karumbaiah
9:45 am	<b>Break, Refreshments</b>
10:00 am	<b>Leah Feuerman</b> <b>Project:</b> Dual Fiber Bragg Gratings for Contact Force Sensing <b>Mentor:</b> Dr. Mable Fok
10:15 am	<b>Emily Lindberg</b> <b>Project:</b> The Role of Nanoparticle's Mechanical Stiffness in Cellular Uptake <b>Mentors:</b> Dr. Xianqiao Wang and Dr. Jin Xie

10:30 am	<p style="text-align: center;"><b>Kaylee O'Connor</b></p> <p><b>Project:</b> Preventing Infection in Silicone Based Medical Devices Using Nitric Oxide Release</p> <p><b>Mentor:</b> Dr. Hitesh Handa</p>
10:45 am	<p style="text-align: center;"><b>Nettie Brown</b></p> <p><b>Project:</b> Nitric Oxide Releasing Bioresorbable Polymers for Medical Devices</p> <p><b>Mentors:</b> Dr. Hitesh Handa and Dr. Jason Locklin</p>
11:00 am	<p style="text-align: center;"><b>Jordan Verplank</b></p> <p><b>Project:</b> Material Based Modulation of Cell Binding to Reduce MSC Adhesion</p> <p><b>Mentor:</b> Dr. Luke Mortensen</p>
11:15 am	<p style="text-align: center;"><b>Awa Bakayoko</b></p> <p><b>Project:</b> Characterizing Breast Cancer Metastasis in a Two-Dimensional (2D) and a Three-Dimensional (3D) Assay</p> <p><b>Mentors:</b> Dr. Cheryl Gomillion and Dr. Melissa Davis</p>
11:30 am	<b>Closing Remarks</b>