On December 12th, 2016 the Biological Engineering department’s senior class presented their capstone research projects. In total fourteen groups shared their research findings that have spanned over a year of their Undergraduate career with the Biological Engineering department at Utah State University.

Check out their research in detail!

Amanda Stoudt, Celeste Hancock, Shawni Bastian worked with Dr. Miller. Their intent was to device a bioplastic that could be used as an alternative for conventional plastics.

Luke Jarvis, Timothy Kerns, and Jacob King worked with Dr. Zhou to create a device that can detect if Milk has spoilage.

Ryan Hatch, Tanner Hunt, Steven Rupp, and Hyrum Wendel were able to use microfluid channeling to create cellular culture concentration gradients.

Taylor Eggertsen, Arther Hart, and William Johnson developed new ways of increasing the amount of antiviral activity and quercetin bioavailability to combat cytomegalovirus; a leading cause of birth defects in the U.S.

Lori Caldwell, Annelise Dykes, and Katherine Glaittli worked with PhD student Charles Harding and Dr. Elizabeth Vargis to measure the effects that high altitude environments have on muscle atrophy.
Colin Ecsedy, Justin Marriott, and Andrew Parker developed an Non-invasive inductive electrode that will work with Brain Computer Interface to facilitate patience recovery to a variety of debilitating physical conditions.

Logan Sherman, Zach Thomas, and Cameron Zabriskie figured out how to get micro-organisms to produce naturally occuring plant product called naringenin that is an important pre-curser for many of the health-promoting substains that plants produce.

Scott Draper, Daniel Erickson, and Brion Hoffmann were able to optimize bioproduction of Resveratrol genetically Modified Escherichia coli

Dallon Durfey, Jared Theurer, and Justus Clark made an oxygen-controlled Growth Chamber for hypoxic studies

Zak Fica, Alan Hodges, Jessica VanDarlin, and Jordan Wanlass worked with Dr. Ronald Sims to develop new ways of treating petroleum wastewater

Danielle Gaztambide, Ana Licon, Michael Paskett, and Samuel Briggs, worked with USTAR professor Randolph Lewis to create bandages out of spidersilk.