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MSEC SEMINAR AND COMMERCIALIZATION FORUM



INVITED SPEAKER:

DR. SHANNON WEIGUM

February 14th, 2020

1:30 – 3:00 PM

RFM 3224

Biography:

Dr. Weigum holds a B.A. in Biology Science Education, from Texas A&M University, an M.S. in Biology from Texas State University, and a Ph.D. in Biochemistry from the University of Texas at Austin. Her current research addresses the clinical need for rapid diagnostic tests in developing countries and other resource-poor settings where the high cost and lack of laboratory equipment, infrastructure, and skilled personnel present barriers to proper disease prevention and treatment. Microfluidic sensors, also known as lab-on-a-chip devices, offer unique opportunities to address these challenges. Their small feature size (0.1 μm – 100 μm) enables lower consumption of costly reagents, shorter reaction times, and permits multiple laboratory processes to be completed on a single platform. A variety of bioanalytical applications have been demonstrated using microfluidics, including chromatography, DNA sequencing, microarrays, PCR amplification, immunoassays, protein and amino acid analysis, and flow cytometry. However, many of these microfluidic devices require an extensive external infrastructure of laboratory equipment for reagent storage, fluid handling, and detection via fluorescence microscopy that limit their use at the POC or in resource-poor settings. Therefore, a critical need remains for affordable, rapid, and robust diagnostic devices for developing countries.

Abstract:

In this very brief talk Dr. Weigum will introduce herself, along with the MSEC 7101/7102 Seminar and Commercialization Forum, and share what is expected of students for successful completion of the course. This introductory meeting will run only 30 minutes or less.

FOR MORE INFORMATION PLEASE CONTACT DR. SHANNON WEIGUM AT
SWEIGUM@TXSTATE.EDU