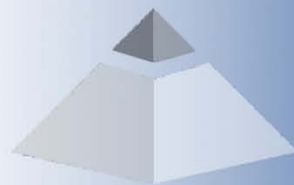# FUTURE

Furthering University of Tennessee Undergraduate Research Education

for Team-Based Design in BME

BioMedical Engineering

Clinical Engineering Partnership

Are you a physician, scientist, or educator at UTMC or GSM?
Would you like to develop new methods and/or medical devices?
Do you want to partner with senior engineering design students?
Can you be a project stakeholder to enhance design projects?

If you answered yes to these questions, please contact Rachel Echols (REchols@mc.utmck.edu) or Kristen Bass (KBass@mc.utmck.edu) to participate in the **Clinical Engineering Partnership** portion of the FUTURE for Team-Based Design in BME Program **sponsored by the National Institutes of Health**.

The engineering design course at UTK is arguably the most important course for undergraduate students – the last bridge between a theory-based education and a problem-solving profession. Currently, **a gap exists between the education of biomedical engineers and their roles in the engineering workforce**.

The **10-week Clinical Engineering Partnership begins to address this gap** and consists of clinical immersion, literature and patent searches, and project planning that serves as a springboard for subsequent design activities throughout the academic year. This period provides an **immersive training environment through activities in a clinical setting and project learning discussions** about diagnostic and treatment protocols.

Based on an environment concerned with medical education and patient health, students gain systematic knowledge applied with the design process to **develop a working prototype of a biomedical innovation**. Note, **all intellectual property is retained by the clinical contributors for potential patent applications**.

Ultimately, the Clinical Engineering Partnership is intended to improve scientific knowledge, technical capability, and clinical practice in biomedical engineering.