Novel strategies to diagnose and treat degenerative joint diseases

Bioinstrumentation, biodesign and BME senior design laboratories

Cognitive neuroscience, signal processing and neural imaging

Molecular imaging, instrumentation and algorithm development using PET and SPECT

Human brain mapping and neurological disorders

Real-time characterization and optimization of radiation dosimetry for therapy and imaging

Nanomaterials engineered to direct immune responses for disease prophylaxis, implants and immunotherapies

Optical, fluorescence and photoacoustic tomography and microscopy

Biocompatible materials, controlled release and immunotherapies

Naturally inspired biomaterials for implants and regeneration

Engineered stem cell and immunomodulatory strategies for brain repair and aging studies

Human physiologic simulation and education

Imaging informatics, biomedical image analysis, machine learning, computer vision and computer aided diagnosis
The Department of Biomedical Engineering at the University of Florida is made possible by the vision and generosity of Dr. J. Crayton Pruitt and his family.

Since its inception in 2002, the department continues to excel in interdisciplinary research that merges engineering with biology and medicine. The department offers both a graduate program and an undergraduate program with particular strengths in:

- Neural Engineering
- Imaging & Medical Physics
- Biomaterials & Regenerative Medicine
- Biomedical Informatics & Modeling

UF BME research has driven the clinical translation of technologies that improve thousands of lives globally.

UF BME is one of only a few departments in the nation to be co-localized with a top-ranked medical school, veterinary school and dental school.

UF BME is housed in a state-of-the-art building located next to the Health Science Center, hospital complex and steps from engineering.

UF BME partners with many local research centers and institutes including the McKnight Brain Institute, the Clinical and Translational Science Institute, the National Magnetic Field Laboratory and the Malcolm Randall VA Medical Center.

UF BME has access to outstanding resources for entrepreneurship and commercialization, including Florida’s 40-acre Innovation Square and the internationally ranked Sid Martin Biotechnology Incubator.