

# CENTRE FOR BIOENGINEERING AND BIOTECHNOLOGY

## TOP APPLICATIONS

### CANCER

Research with applications in detecting or treating abnormal cell growth.

### HEALTHCARE SYSTEMS

Research to meet the health needs of a target population, epidemiology, public health, policy, human factors, management of information systems and personalized care delivery.

### AGING

Research with applications in the aging process and fall prevention (e.g., bone health, arthritis).

### WEARABLE DEVICES

Research using wearable hardware to monitor and prevent health problems, improving diagnostic accuracy, and predictive analytics.

### INDUSTRIAL BIOTECHNOLOGY

Research involving biosciences and process engineering (e.g., using renewable materials to create bio-based products, improving the value of materials of pharmaceuticals).

### ENVIRONMENTAL BIOTECHNOLOGY

Research and applications in the areas of sustainability, agriculture, fish populations, pollutions control measures.

### TARGETED DRUG DELIVERY

Research with applications in delivering medication to a patient in a manner that increases the concentration of the medication in some parts of the body relative to other (e.g., therapeutics, genomics).

### NEURODEGENERATIVE DISEASES

Research or treatment of the conditions which affect the neurons in the brain (e.g., Alzheimer's, Parkinson's, Huntington's, or other dementias).

### DATA SCIENCE

Interdisciplinary research of data systems to extract and analyze evidence-based knowledge to make decisions.

### BIOMECHANICS

Research within human use of their brain and cognition to activate the muscles in the performance of a motor skill (e.g., musculoskeletal analysis, biomechanics).