BIOMEDICAL ENGINEERING

AT A GLANCE



CHERIE STABLER, PH.D. PROFESSOR, INTEGRA LIFESCIENCES TERM PROFESSOR, UF FOUNDATION PREEMINENCE TERM PROFESSOR & DEPARTMENT CHAIR

The University of Florida's **J. Crayton Pruitt Family Department of Biomedical Engineering** (BME) in the Herbert Wertheim College of Engineering integrates engineering principles with biology and medicine to advance human health.

The department is dedicated to developing innovative and clinically translatable biomedical technologies and educating future leaders in biomedical engineering by promoting collaboration, academic rigor, and a societal impact. Our 30 faculty members and more than 440 undergraduate and graduate students leverage our unique co-localization of talent and resources in engineering, biology, medicine, veterinary science, dentistry, and technology commercialization to engage in open-ended collaborative research and complex, multi-faceted design challenges across our numerous research areas.

RESEARCH AREAS

BIOMATERIALS & REGENERATIVE MEDICINE

BIOMECHANICS & BIONICS

BIOMEDICAL IMAGING & APPLICATIONS

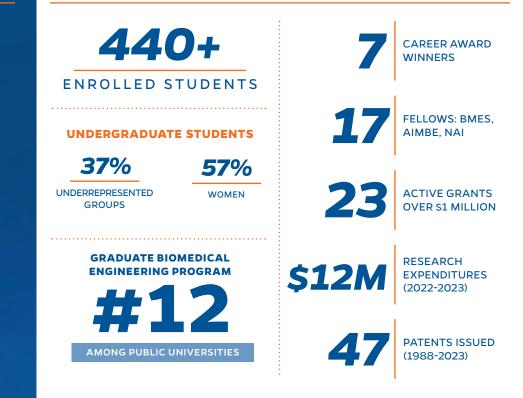
MODELING & BIOMEDICAL DATA SCIENCE

MOLECULAR & CELLULAR ENGINEERING

NEURAL ENGINEERING



FACTS & FIGURES





OUT OF 99 PH.D. STUDENTS ENROLLED IN THE BIOMEDICAL ENGINEERING PROGRAM, **52 PERCENT** ARE WOMEN. 2023 DEPARTMENTAL ENROLLMENT DATA



DOMESTIC STUDENTS COMPRISE **78 PERCENT** OF UF BME'S PH.D. ENROLLMENT. 2023 DEPARTMENTAL ENROLLMENT DATA

UF Herbert Wertheim College of Engineering UNIVERSITY of FLORIDA BME.UFL.EDU

POWERING THE NEW ENGINEER TO TRANSFORM THE FUTURE

UF BIOMEDICAL ENGINEERING PRIMARY FACULTY



Kyle D. Allen Professor Ph.D., Rice University

Novel strategies to diagnose and treat degenerative joint diseases



Wesley E. Bolch **Distinguished Professor & UF Term Professor** Ph.D., University of Florida

Dosimetry, computational medical physics and radiation dose assessment



Markia Bowe Instructional Assistant Professor Ph.D., University of Florida

Biomechanics of bone, 3D imaging, inclusive design and engineering education research



Mingzhou Ding Distinguished Professor & J. Crayton Pruitt Family Professor Ph.D., University of Maryland

Cognitive neuroscience, signal processing and neural imaging



<u>Xiao Fan</u> Assistant Professor Ph.D., University of Alberta

Computational approaches to study genetic architecture of rare diseases and interpretation of genetic variants



Ruogu Fang Associate Professor & J. Crayton **Pruitt Family Term Fellow** Ph.D., Cornell University

Artificial intelligence (AI), brain dynamics and medical image analysis



Assistant Professor

Quantitative systems biology, mathematical modeling, cancer heterogeneity and evolutionary



Meghan Ferrall-Fairbanks Ph.D., Georgia Institute of Technology

dynamics



Biomechanics, neuromechanical control, locomotion, mobile brain imaging, robotic exoskeletons and bionic prostheses



Sarah Furtney Instructional Associate Professor. Undergraduate Coordinator & J. Cravton Pruitt Family Term Fellow Ph.D., Clemson University

BME cellular engineering laboratory and engineering education research



Chris Geiaer Instructional Associate Professor Ph.D., Northwestern University

Senior Design and engineering education



















Kuang Gong Assistant Professor Ph.D., University of California at Davis

Deep learning, medical imaging, and data science

Aysegul Gunduz Professor, Fixel Brain Mapping Professor & UF Term Professor Ph.D., University of Florida

Human brain mapping, neuromodulation and neural interfacing

Gregory A. Hudalla Associate Professor & Graduate Coordinator Ph.D., University of Wisconsin

Molecular engineering for immunotherapies and immune modulation

Benjamin G. Keselowsky Professor Ph.D., Georgia Institute of Technology

Biomaterials and controlled release systems for vaccines immunotherapies and implants

Jamal Lewis Associate Professor Ph.D., University of Florida

Biomaterials, drug delivery and immunoengineering

<u>May Mansy</u> Instructional Assistant Professor Ph.D., University of Florida

Bio-signals & systems, bio-instrumentation lab and engineering education

Peter S. McFetridge Associate Professor

Naturally inspired biomaterials for biologically functional implants and

Associate Professor & Associate **Chair for Undergraduate Studies** Ph.D., University of Virginia

angiogenesis, lymphangiogenesis and neurogenesis

Jennifer A. Nichols Assistant Professor & J. Cravton **Pruitt Family Term Fellow**

Biomechanics, musculoskeletal modeling, predictive simulation.

Ph.D., Arizona State University

Neural engineering, device-tissue interfaces and neurostimulation









Parisa Rashidi

IC3 Co-Director

pervasive health

Associate Professor &

Ivana Parker

Assistant Professor

and applied proteomics

Edward A. Phelps

Cell and tissue regeneration, islet biology, diabetes and

Assistant Professor

immunoengineering

Ph.D., Georgia Institute of Technology

Trained immunity, systems biology,

HIV/TB, host-pathogen interactions

Ph.D., Georgia Institute of Technology

Assistant Professor Ph.D., University of Wisconsin

Biomaterials and tissue engineering to study host-microbe interactions and inclusive science communication

Ph.D., Washington State University

Medical artificial intelligence (AI) and

Carlos Rinaldi-Ramos Dean's Leadership Professor &

Chemical Engineering Department Chair Ph.D., Mass. Institute of Technology

Nanomedicine and magnetic nanoparticles

Christine E. Schmidt Distinguished Professor &

J. Crayton Pruitt Professor Ph.D., University of Illinois

Biomaterials for neural tissue regeneration and neural interfacing

Blanka Sharma

Associate Professor Ph.D., Johns Hopkins University

Nanomedicine, biomaterials, targeted drug/gene delivery and immunoengineering

Cherie Stabler

Professor, Integra LifeSciences Term Professor, UF Foundation Term Professor & Department Chair

Biomaterials, controlled release, regenerative medicine and diabetes

Brittany Taylor Assistant Professor

Ph.D., Rutgers University

Musculoskeletal tissue engineering, bioactive biomaterials, tendon injury and repair

Lakiesha N. Williams Professor & Associate Chair for Graduate Studies Ph.D., Mississippi State University

Traumatic brain injury, soft tissue mechanics, bio-inspired design and materials characterization





Walter Lee Murfee

Cell dynamics, microcirculation,



medical imaging and machine learning

Kevin J. Otto Professor