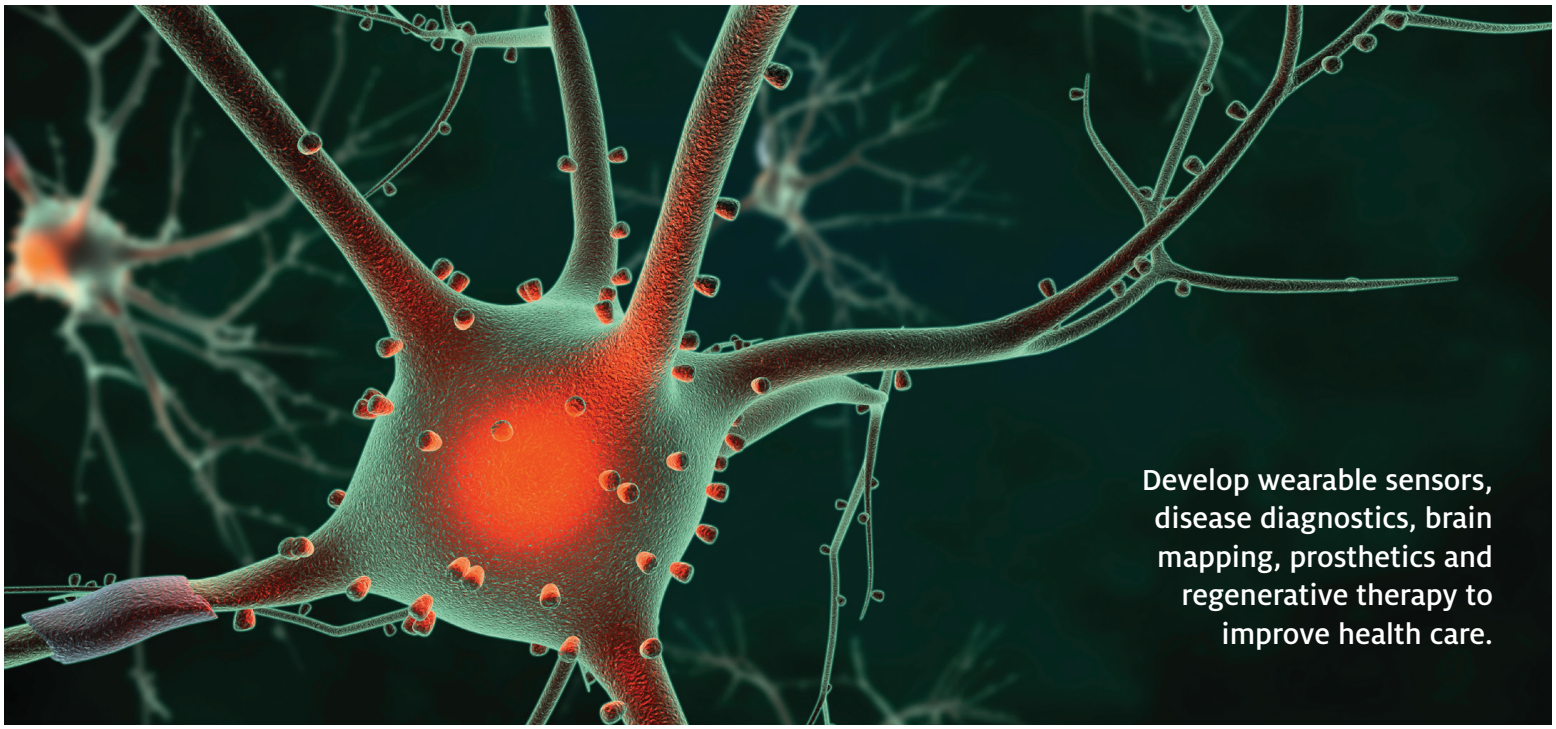
COLLEGE OF ENGINEERING
Biomedical Engineering

GRADUATE STUDIES

Building a better quality of life



Research Focus Areas

- Bioinstrumentation and devices
- Biomechanics
- Biomedical imaging & spectroscopy
- Biomedical informatics
- Biosensors
- Cardiovascular biomedical engineering
- Nanomedicine
- Neuroengineering
- Tissue engineering & regeneration

Emphasis on Invention

22

UA national ranking for R&D expenditures
(public universities)

Ideal Student Environment

- Multidisciplinary mentoring
- Flexible curriculum
- Strong commercialization support
- Hispanic-serving institution
- Year-round outdoor activities

Degrees

- PhD Biomedical Engineering
- MS Biomedical Engineering

Affiliated Centers

- Arizona Center for Accelerated Biomedical Innovation
- BIO5 Institute
- Sarver Heart Center
- UA Cancer Center

"The proximity to a medical school, a hospital and state-of-the-art research equipment connected me to experts in many fields who supported my growth as a researcher and student."

- Kaitlyn Ammann, postdoctoral research associate

Funding options throughout degree lifecycle

Application Deadlines

Domestic

- PhD – Jan. 6
- MS – Mar. 1 (fall) Sept. 1 (spring)

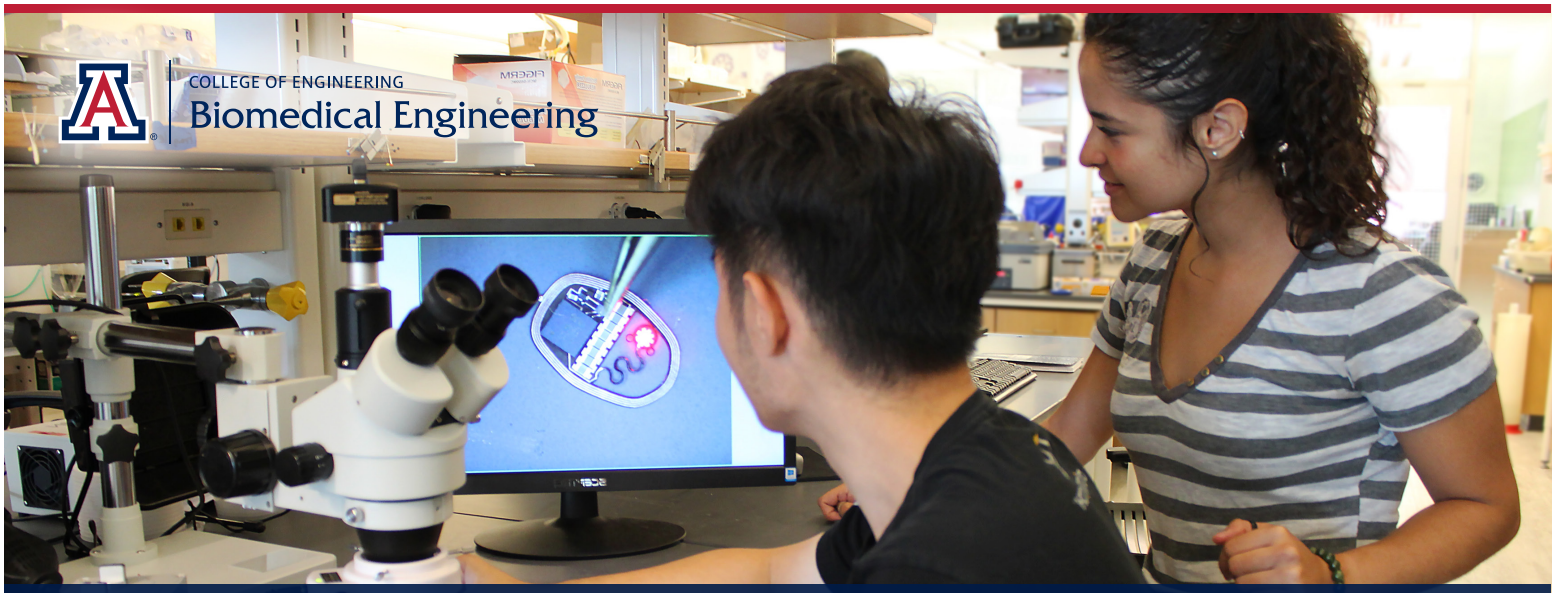
International

- PhD – Dec. 1
- MS – Feb. 1 (fall) Aug. 1 (spring)

Contacts

Ali Bilgin
Associate Department Head for Graduate Affairs
bilgin@arizona.edu
520.626.8943

Andrea Anduaga
Senior Academic Advisor
aanduaga@arizona.edu
520.626.9134



> “There’s a real entrepreneurial spirit here. People have the freedom to start new ideas. It’s a place where you’re going to learn those skills that you need to be successful through your entire career.”
>
> **- Jennifer Barton, professor and director of the BIO5 Institute**

Faculty Expertise

Jennifer Barton – barton@arizona.edu
miniature endoscopes that combine optical coherence tomography and fluorescence spectroscopy for colon and ovarian cancer detection • laser-tissue interaction and dynamic optical properties of blood

Ali Bilgin – bilgin@arizona.edu
MRI and X-ray optimization • accelerated MRI and MR parameter mapping • cancer imaging • data compression

Nan-kuei Chen – nkchen@arizona.edu
motion-immune MRI • MRI corrections and improvements • human brain connectivity imaging

Erika Eggers – eeggers@arizona.edu
neuronal signaling and sensory signal processing in the healthy and diabetic retina

Wolfgang Fink – wfink@arizona.edu
ocular biomechanics • artificial vision and vision prostheses • Scheimpflug imaging and ray tracing • computer classification of visual field data • wearable sensors • human brain-machine interfaces

Arthur Gmitro – gmitro@arizona.edu
multimodality imaging methods and techniques • confocal microendoscopy for cancer detection

Philipp Gutruf – pgutruf@arizona.edu
wireless, battery-free, implantable optogenetic devices

Elizabeth Hutchinson – hutchinsone@arizona.edu
preclinical imaging/neuroimaging brain disorders • traumatic brain injury

Dongkyun Kang – dkkang@arizona.edu
miniature microscopy devices and in vivo microscopy

Minkyu Kim – minkyukim@arizona.edu
biopolymer materials for applications in health care, environmental safety and national defense

Kaveh Laksari – klaksari@arizona.edu
mechanisms, prevention and diagnosis of traumatic brain injury • cerebral hemodynamics in stroke patients

Marek Romanowski – marekrom@arizona.edu
contrast agents • nanoparticle and liposome materials for drug delivery • augmented and holographic imaging for surgical guidance

Marvin Slepian – slepian@arizona.edu
artificial hearts • drug-eluting stents • surgical anti-adhesive barriers • synthetic tissue and vascular sealants • myocardial revascularization and cell delivery methods

Shang Song – shangsong@arizona.edu
organ-on-a-chip • engineered cellular microenvironment for neurologic diseases • tissue engineering

Tsu-Te Judith Su – judith@arizona.edu
label-free, single-molecule detection using ultrasensitive optical sensors

Vignesh Subbian – vsubbian@arizona.edu
computational medicine, biomedical data science and informatics • traumatic brain injury and intelligent systems • applied machine learning for neurological disorders

Jil Tardiff – jtardiff@arizona.edu
biophysics and drug delivery • sudden cardiac death

Nima Toosizadeh – ntoosizadeh@arizona.edu
motion analysis and assessment of function and cognitive decline in the elderly • wearable sensors

Ted Trouard – trouard@arizona.edu
MRI for neuroimaging and drug delivery

Urs Utzinger – utzinger@arizona.edu
fiber optic sensing and microscopy • imaging instrumentation for gynecological and gastrointestinal cancer • biosensors for minimally invasive cancer detection • whole-brain imaging microscopy

Mark Van Dyke – mvandyke@arizona.edu
Biomaterials, medical devices, prosthetics, regenerative medicine, tissue engineering, entrepreneurial ecosystems

Jeong-Yeol Yoon – jyyoon@arizona.edu
medical diagnostics • water quality and food safety • handheld LAMP and PCR • organ-on-a-chip • tissue engineering