

Biomedical Engineering

Email: bme@wustl.edu
Website: <https://bme.wustl.edu/academics/graduate-programs/index.html>

Faculty

Chair

Lori A. Setton (<https://engineering.wustl.edu/Profiles/Pages/Lori-Setton.aspx>)

Lucy and Stanley Lopata Distinguished Professor of Biomedical Engineering
PhD, Columbia University
Biomaterials for local drug delivery; tissue regenerations specific to the knee joints and spine

Endowed Professor

Rohit V. Pappu (<https://engineering.wustl.edu/faculty/Rohit-Pappu.html>)

Gene K. Beare Distinguished Professor of Biomedical Engineering
PhD, Tufts University
Macromolecular self assembly and function; computational biophysics

Professors

Dennis L. Barbour (<https://engineering.wustl.edu/faculty/Dennis-Barbour.html>)

MD, PhD, Johns Hopkins University
Application of novel machine learning tools to diagnose and treat disorders of perception and cognition

Jianmin Cui (<https://engineering.wustl.edu/faculty/Jianmin-Cui.html>)

PhD, State University of New York–Stony Brook
Ion channels; channel structure-function relationship; biophysics

Daniel Moran (<https://engineering.wustl.edu/faculty/Daniel-Moran.html>)

PhD, Arizona State University
Motor control; neural engineering; neuroprosthetics; movement biomechanics

Baranidharan Raman (<https://engineering.wustl.edu/faculty/Barani-Raman.html>)

PhD, Texas A&M University
Computational and systems neuroscience; neuromorphic engineering; pattern recognition; sensor-based machine olfaction

Jin-Yu Shao (<https://engineering.wustl.edu/faculty/Jin-Yu-Shao.html>)

PhD, Duke University
Cell mechanics; receptor and ligand interactions; molecular biomechanics

Jon Silva (<https://engineering.wustl.edu/faculty/Jonathan-Silva.html>)

Dennis & Barbara Kessler Career Development Associate Professor
PhD, Washington University
Ion channel biophysics

Chao Zhou (<https://engineering.wustl.edu/faculty/Chao-Zhou.html>)

PhD, University of Pennsylvania
Optical coherence tomography

Quing Zhu (<https://engineering.wustl.edu/faculty/Quing-Zhu.html>)

Edwin H. Murty Professor of Engineering
PhD, University of Pennsylvania
Biophotonics and multimodality ultrasound and optical imaging

Associate Professors

Hong Chen (<https://engineering.wustl.edu/faculty/Hong-Chen.html>)

PhD, University of Washington
Physical acoustics; therapeutic ultrasound and ultrasound imaging

Song Hu (<https://engineering.wustl.edu/faculty/Song-Hu.html>)

PhD, Washington University in St. Louis
Optical and photoacoustic technologies for high-resolution structural, functional, metabolic and molecular imaging in vivo

Michelle Oyen (<https://engineering.wustl.edu/faculty/Michelle-Oyen.html>)

PhD, University of Minnesota
Bioengineering approaches to the study of pregnancy and childbirth; mechanical properties of hydrogel and hydrogel composite materials; biomimetic materials referencing both hard and soft natural tissues

Jai S. Rudra (<https://engineering.wustl.edu/faculty/Jai-Rudra.html>)

PhD, Louisiana Tech University
Peptide-based biomaterials; immunoengineering; immunology of nanoscale aggregates; development of vaccines and immunotherapies

Kurt A. Thoroughman (<https://engineering.wustl.edu/faculty/Kurt-Thoroughman.html>)

PhD, Johns Hopkins University
Human motor control and motor learning; neural computation

Assistant Professors

Nate Huebsch (<https://engineering.wustl.edu/faculty/Nathaniel-Huebsch.html>)

PhD, Harvard University
Cell-material Interactions, iPSC-based tissue modeling to study cardiac development and disease

Abhinav Kumar Jha (<https://engineering.wustl.edu/faculty/Abhinav-Jha.html>)

PhD, University of Arizona
Development of computational-imaging solutions for diagnosing and treating diseases

Christine M. O'Brien (<https://engineering.wustl.edu/faculty/Christine-OBrien.html>)

PhD, Vanderbilt University
Developing optical spectroscopy and imaging tools to solve global problems in maternal-fetal health and reproductive diseases

Alexandra Rutz (<https://engineering.wustl.edu/faculty/Alexandra-Rutz.html>)

PhD, Northwestern University
Engineering of electronic tissues using materials design and fabrication-based approaches

Ismael Seáñez (<https://engineering.wustl.edu/faculty/Ismael-Seanez.html>)

PhD, California Institute of Technology
Neuro-rehabilitation tools and programs that promote active use of residual mobility and maximize recovery through the use of body-machine interfaces

Michael D. Vahey (<https://engineering.wustl.edu/faculty/Michael-Vahey.html>)

PhD, Massachusetts Institute of Technology
Biophysical mechanisms of infectious disease; fluorescence microscopy; microfluidics

Principal Lecturer

Patricia Widder (<https://engineering.wustl.edu/faculty/Patricia-Widder.html>)

MS, Washington University

Lecturer

Katherine Schreiber (<https://engineering.wustl.edu/faculty/Katherine-Schreiber.html>)

PhD, Saint Louis University

Senior Professor

Larry Taber

PhD, Stanford University
Mechanics of growth and development; cardiac mechanics

Senior Emeritus Professors

Yoram Rudy

Fred Saigh Distinguished Professor of Engineering
PhD, Case Western Reserve University
Cardiac electrophysiology; modeling of the cardiac system

Frank Yin

MD, PhD, University of California, San Diego