Degrees

- Ph.D. in Biomedical Engineering
- Master of Science in Biomedical Engineering

Student Composition and Diversity

U.S. News and World Report rated UTA as the 5th-most diverse university in the United States in 2017. The University is an Hispanic-serving institution and is one of the 40 most popular U.S. colleges and universities for international students, based on data from the Institute of International Education's 2014-15 Open Doors Report.

How to Apply

Begin your application for graduate admission today at **uta.edu/admissions/graduate/apply**. Please be sure to check application deadlines and include all of the required application materials and fees.

Financial Assistance

All applications for admission will be also be considered for assistantships, fellowships, and scholarships. Complete your application early to take advantage of all opportunities for financial aid.

Who Hires Our Graduates?

Our graduates move on to faculty posts at universities such as UCLA, the University of Florida and MIT, research posts at organizations such as the United States Food and Drug Administration and the Cleveland Clinics, and companies such as Abbott Laboratories, Alcon, Medtronics, and Zimmer Biomet.

Learn More

For more information about the Bioengineering Department, visit our website at **uta.engineering/be** or contact the graduate advisor:

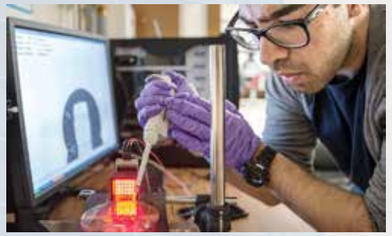
George Alexandrakis, Ph.D.
817-272-3469
galex@uta.edu

Why Pursue a Graduate Degree at UTA?

The Bioengineering Department is on the cutting edge of technology and research, with multiple current grants funded by the NIH, NSF, and others for work related to traumatic brain injuries, cancer, imaging, and biomedical technology. Faculty and graduate students in the department enjoy an association with nearby UT Southwestern Medical Center, one of the top medical schools in the nation. Students can take engineering and life science courses at UTA or UTSW and conduct research in laboratories located on either campus. Graduates of the program may receive a diploma bearing the seals of both UTA and UTSW if requirements are satisfied. The combined faculty, staff and facilities of the two campuses provide tremendous resources and opportunities for biomedical engineering students.

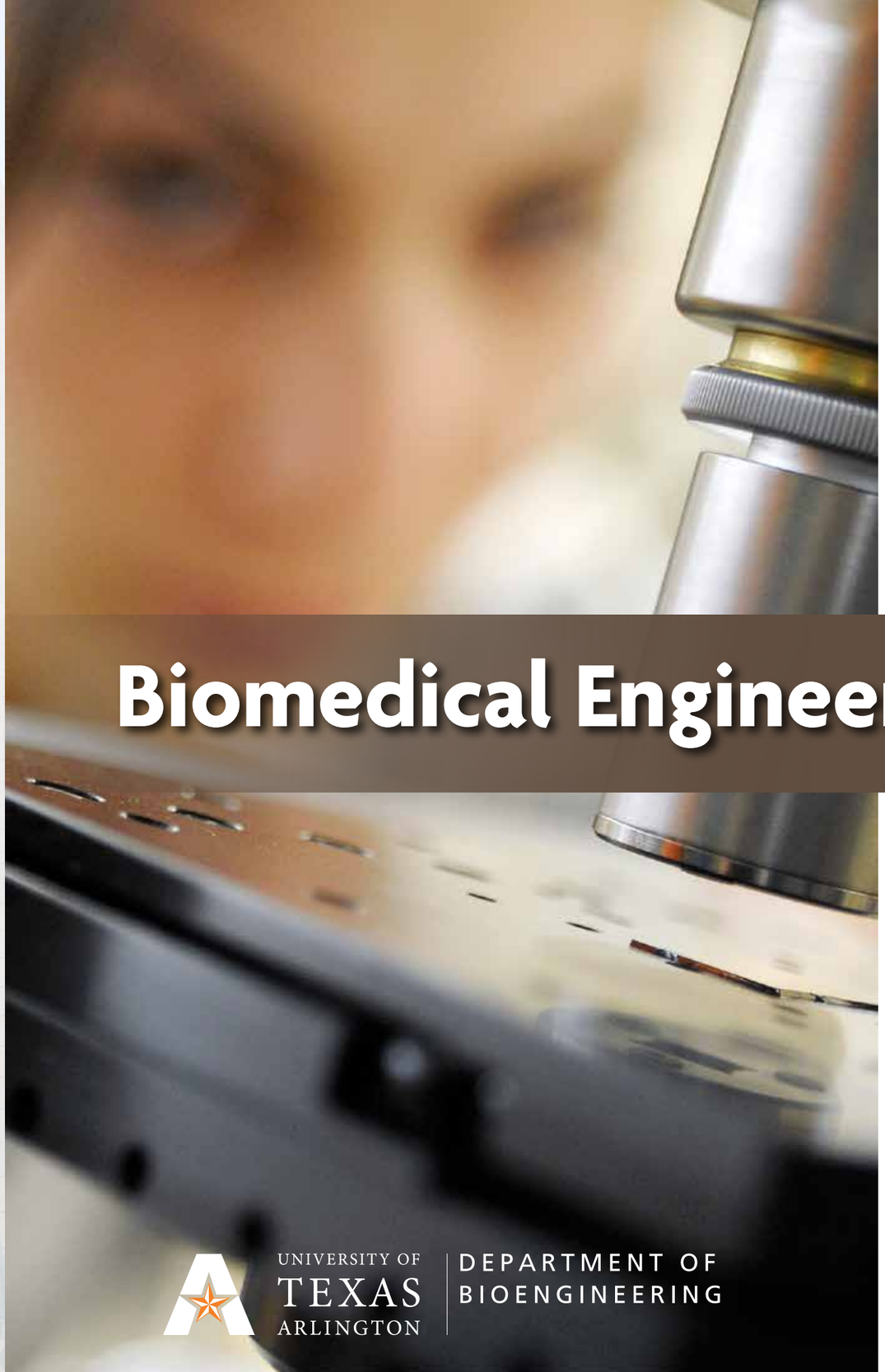
An Impactful Research University

The University of Texas at Arlington is rising in stature through its commitment to transforming the lives of students and pushing the boundaries of knowledge. Dramatic, measurable advancements continue to propel the University toward its goal of becoming one of the nation's premier research institutions. UTA is designated an R-1 Carnegie "highest research activity" institution. Research activity at the university has more than tripled to more than $85 million over the past 10 years, with increasing expertise in bioengineering, medical diagnostics, micro-manufacturing, and defense and Homeland Security technologies, among other areas. With a projected total global enrollment of close to 57,000 students, UTA is one of the largest universities in Texas and is a first-choice university for students seeking a vibrant college experience. In addition to receiving a first-rate education, our students participate in a multitude of activities that prepare them to become the next generation of leaders.



An Ideal Location

UTA is located in the heart of the Dallas/Fort Worth Metroplex, the fourth-largest metropolitan area in the United States. Arlington is located between the cities of Dallas and Fort Worth and is a center for sporting events, tourism and manufacturing. The Metroplex has one of the highest concentrations of corporate headquarters in the United States, with corporations such as Texas Instruments, AT&T, Ericsson, Lockheed Martin, Bell Helicopter Textron, and many more. Also, just minutes from campus, DFW International Airport and several interstate highways allow easy access to global collaboration and commerce.



Biomedical Engineering

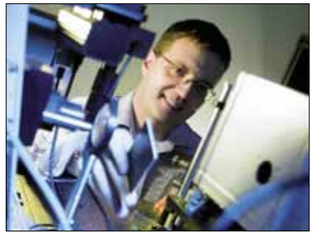
UNIVERSITY OF TEXAS ARLINGTON | DEPARTMENT OF BIOENGINEERING

State-of-the-Art Research Facilities

Bioengineering Core Imaging Facility

Jun Liao received STARS funding to acquire a sophisticated imaging system. The DeltaVision OMX SR system by GE is a compact multimode imaging platform enabling the researcher to perform high and super-resolution imaging with high-speed 2D- and 3D-SIM, TIRF, widefield, and localization microscopy. The imaging system is expected to play key role in achieving innovative research in cardiovascular diseases and establishing interdisciplinary and integrative experimental approaches in cardiac tissue mechanics, heart valve biomechanics, and cardiovascular regeneration.

George Alexandraxis Lab



Research in the Alexandrakis lab investigates the dynamics of proteins involved in DNA repair by use of quantitative confocal and two-photon cellular microscopy techniques and works on the technological development and clinical dissemination of functional Near-Infrared Spectroscopy (fNIRS).

Kytai Nguyen Lab

Research in the Nguyen lab investigates vascular cell responses to environmental factors such as biomechanical, biochemical, and biomaterials (biodegradable polymers) to enhance knowledge about the roles of environmental factors in vascular biology and in the pathogenesis of vascular disorders. In addition she pursues the development of new strategies and novel biodegradable scaffolds for tissue engineering applications and formulation and characterization of new drug delivery systems such as multifunctional nanoparticles for treatment of various diseases including cardiovascular diseases and cancer.

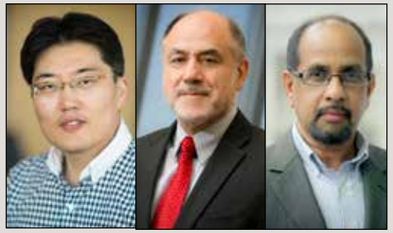
Baohong Yuan Lab

Research in the Yuan Lab focuses on the development of ultrasound-mediated fluorescence optical techniques for tumor structural, functional, molecular and genomic imaging. The long-term goal is to explore and develop new imaging modalities combined with the existing imaging techniques for understanding cancer mechanisms, early detecting and diagnosing cancers, and monitoring cancer treatment efficiency in living systems.

Current Research

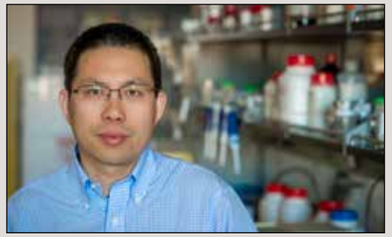
Kytai Nguyen was awarded a National Institutes of Health T-32 grant to recruit and train outstanding doctoral students to develop and use nanomaterials and nanomedicine to battle cardiovascular and pulmonary ailments.

Young-Tae Kim and Khosrow Behbehani and Muthu Wijesundara of the UTA Research Institute are developing a new method and device to control blood pressure in environments that use targeted electrical stimlation rather than drugs.



A team led by Hanli Liu has published groundbreaking research in Nature's Scientific Reports that show a proven concept of using light to possibly treat PTSD effectively and over the long term.

Yi Hong is developing a scaffold that is flexible, conductive and biodegradable for biomedical applications such as tissue repair.



Michael Cho is leading a collaborative team with researchers at Old Dominion University, Cornell University and the UTA Research Institute to determine the mechanisms of traumatic brain injuries due to shockwaves.

Liping Tang is part of a multidisciplinary team working to develop a sensing and therapeutic tool that will help doctors and other healthcare workers better monitor and heal patients' complex wounds more quickly.

Faculty and Research Interests

Michael Cho
Professor
Alfred R. and Janet H. Potvin Chair of Bioengineering
michael.cho@uta.edu

Biomechanics, multimodal imaging, tissue engineering

Cheng-Jen Chuong
Professor
Associate Chair
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Computatoinal biomechanics, cancer cell migration, medical devices, vascular stents

George Alexandrakis
Associate Professor
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Biomedical engineering, physics, optical tomography and high-resolution microscopy

Khosrow Behbehani
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Respiratory and anesthesia device design and analysis, microprocessor-based control design for biomedical systems, computer modeling of biomedical systems.

Digant Davé
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Biomedical optics

Yi Hong
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Biomaterials, tissue engineering, medical devices, drug delivery

Justyn Jaworski
Assistant Professor
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Applied soft-matter systems, molecular recognition for biomedical applications

Young-tae Kim
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Neural engineering

Juhyun Lee
Assistant Professor
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Biomedical optical imaging, hemodynamics, cardiac mechanics

Jun Liao
Associate Professor
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Tissue biomechanics, computational simulation, tissue engineering and regeneration, cardiac biomechanics and regeneration, heart valve biomechanics, bioengineering

Hanli Liu
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Medical instrumentation and imaging, minimally invasive and non-invasive spectroscopy and imaging of tissue, optical diffuse imaging for cancer prognosis and brain activities

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Professor
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Drug delivery and tissue engineering

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Translational regenerative medicine

Baohong Yuan
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Physics and biomedical engineering, biomedical acoustic and optical imaging